

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	456	0	0	369
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
In-Process Volume [veh/h]	0	0	290	0	0	185
Site-Generated Trips [veh/h]	107	66	2	42	28	4
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]	107	66	775	42	28	580
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]	28	17	204	11	7	153
Total Analysis Volume [veh/h]	113	69	816	44	29	611
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	ProtPerm	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	26	0	55	0	9	64
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	17	0	10	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00
g_i, Effective Green Time [s]	8	8	68	68	74	74
g / C, Green / Cycle	0.09	0.09	0.75	0.75	0.82	0.82
(v / s)_i Volume / Saturation Flow Rate	0.06	0.04	0.23	0.03	0.04	0.32
s, saturation flow rate [veh/h]	1810	1615	3618	1615	725	1900
c, Capacity [veh/h]	158	141	2713	1211	661	1565
d1, Uniform Delay [s]	39.96	39.13	3.63	2.89	1.77	2.07
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.83	2.59	0.29	0.06	0.03	0.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.49	0.30	0.04	0.04	0.39
d, Delay for Lane Group [s/veh]	45.79	41.72	3.92	2.95	1.79	2.80
Lane Group LOS	D	D	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.66	1.54	1.27	0.12	0.05	1.68
50th-Percentile Queue Length [ft/ln]	66.53	38.49	31.68	2.96	1.23	41.88
95th-Percentile Queue Length [veh/ln]	4.79	2.77	2.28	0.21	0.09	3.02
95th-Percentile Queue Length [ft/ln]	119.75	69.28	57.03	5.33	2.22	75.39

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.79	41.72	3.92	2.95	1.79	2.80
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.25		3.87		2.76	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	7.81					
Intersection LOS	A					
Intersection V/C	0.384					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.056	2.840	2.599
Crosswalk LOS	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	1133	1333
d_b, Bicycle Delay [s]	25.69	8.45	5.00
I_b,int, Bicycle LOS Score for Intersection	1.560	2.269	2.616
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 103: Cherry Valley Blvd at East Project Dwy

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↷			⊥			⊥		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00			30.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	456	0	0	369	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600	1.0600
In-Process Volume [veh/h]	0	0	0	0	0	0	0	290	0	0	185	0
Site-Generated Trips [veh/h]	0	0	13	0	0	0	0	66	2	0	32	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	13	0	0	0	0	839	2	0	608	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]	0	0	3	0	0	0	0	221	1	0	160	0
Total Analysis Volume [veh/h]	0	0	14	0	0	0	0	883	2	0	640	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	11.49	0.00	0.00	10.28	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.49				10.28		0.00		0.00			
Approach LOS	B				B		A		A			
d_I, Intersection Delay [s/veh]	0.10											
Intersection LOS	B											

Beaumont Summit Station

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Scenario 7 OY 2027 CUM AM
 2/4/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.029	319.9	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Left	1.867	239.0	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	0.310	53.1	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.382	28.0	D
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	0.762	17.0	C
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	0.773	17.4	C
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.435	26.2	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.002	11.3	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	NB Thru	0.011	10.1	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.244	8.5	A
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	EB Left	0.698	34.7	C
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.242	69.5	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	1.602	379.3	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Right	1.583	409.9	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Left	0.799	25.6	C
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Left	1.153	200.4	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For

all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	319.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.029

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	137	0	315	0	696	211	24	149	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	68	0	150	0	300	299	176	150	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	221	0	503	0	1080	535	203	317	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	58	0	132	0	284	141	53	83	0
Total Analysis Volume [veh/h]	0	0	0	233	0	529	0	1137	563	214	334	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		762	1700	756
Degree of Utilization, x		1.33	2.03	0.72

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		32.62	113.40	6.35
95th-Percentile Queue Length [ft]		815.39	2835.04	158.82
Approach Delay [s/veh]	0.00	181.61	478.77	19.25
Approach LOS	A	F	F	C
Intersection Delay [s/veh]	319.88			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	239.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.867

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	91	1	22	0	0	0	692	156	0	0	55	442
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	150	0	68	0	0	0	299	68	0	0	176	92
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]	252	1	93	0	0	0	1074	243	0	0	238	587
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	66	0	24	0	0	0	283	64	0	0	63	154
Total Analysis Volume [veh/h]	265	1	98	0	0	0	1131	256	0	0	251	618
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	517		1387	869
Degree of Utilization, x	0.70		1.87	1.03




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	5.54		86.54	19.60
95th-Percentile Queue Length [ft]	138.61		2163.54	489.92
Approach Delay [s/veh]	24.91	0.00	408.34	58.42
Approach LOS	C	A	F	F
Intersection Delay [s/veh]	239.01			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	53.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.310

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	42	25	30	166	478	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	101	34	101	251	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]	47	129	68	287	786	65
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]	12	34	18	76	207	17
Total Analysis Volume [veh/h]	49	136	72	302	827	68
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.31	0.38	0.09	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	53.14	40.38	10.18	0.00	0.00	0.00
Movement LOS	F	E	B	A	A	A
95th-Percentile Queue Length [veh/ln]	4.62	4.62	0.31	0.31	0.00	0.00
95th-Percentile Queue Length [ft/ln]	115.61	115.61	7.75	7.75	0.00	0.00
d_A, Approach Delay [s/veh]	43.76		1.96		0.00	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	6.07					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.382

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	70	0	176	13	0	470
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	13	0	97	4	0	176
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]	91	0	294	19	0	702
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]	24	0	77	5	0	185
Total Analysis Volume [veh/h]	96	0	309	20	0	739
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	0.38	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	27.95	18.57	0.00	0.00	7.90	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.71	1.71	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	42.68	42.68	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	27.95		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	2.31					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	17.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.762

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	50	1	1	0	3	96	24	139	12	1	315	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	104	0	0	178	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]	56	1	1	0	3	108	27	260	13	1	531	1
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]	15	0	0	0	1	28	7	68	3	0	140	0
Total Analysis Volume [veh/h]	59	1	1	0	3	114	28	274	14	1	559	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	553	642	695	737
Degree of Utilization, x	0.11	0.18	0.45	0.76

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.37	0.66	2.38	7.22
95th-Percentile Queue Length [ft]	9.25	16.55	59.53	180.51
Approach Delay [s/veh]	10.32	9.85	12.42	21.74
Approach LOS	B	A	B	C
Intersection Delay [s/veh]	16.97			
Intersection LOS	C			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	17.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			+r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	17	18	4	5	24	34	16	94	41	3	308	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	24	0	0	0	0	0	0	78	26	0	154	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]	43	20	4	6	27	38	18	183	72	3	499	1
Peak Hour Factor	0.9400	0.9400	0.9400	0.9500	0.9400	0.9500	0.9500	0.9500	0.9400	0.9400	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]	11	5	1	2	7	10	5	48	19	1	131	0
Total Analysis Volume [veh/h]	46	21	4	6	29	40	19	193	77	3	525	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	580	620	649	750	683	789
Degree of Utilization, x	0.12	0.12	0.33	0.10	0.77	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.42	0.41	1.42	0.34	7.40	0.00
95th-Percentile Queue Length [ft]	10.38	10.25	35.50	8.54	185.01	0.10
Approach Delay [s/veh]	10.06	9.60	10.16		23.54	
Approach LOS	B	A	B		C	
Intersection Delay [s/veh]	17.45					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	26.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.435

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	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	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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	111	198	8	8	224	50	41	50	74	8	81	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	154	131	0	0	44	0	0	0	78	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]	278	353	9	9	295	56	46	56	161	9	91	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]	73	93	2	2	78	15	12	15	42	2	24	2
Total Analysis Volume [veh/h]	293	372	9	9	311	59	48	59	169	9	96	8
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	35	39	0	19	23	0	9	23	0	9	23	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	60	60	1	44	44	3	12	12	1	9
g / C, Green / Cycle	0.19	0.67	0.67	0.01	0.49	0.49	0.04	0.13	0.13	0.01	0.10
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.01	0.00	0.16	0.04	0.03	0.03	0.10	0.00	0.06
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1875
c, Capacity [veh/h]	337	1268	1077	22	938	797	70	249	212	21	194
d1, Uniform Delay [s]	35.57	6.20	5.01	44.11	13.80	11.98	42.70	35.06	37.94	44.19	38.27
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.93	0.59	0.01	11.13	0.95	0.18	10.94	0.48	6.76	13.40	2.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.29	0.01	0.40	0.33	0.07	0.68	0.24	0.80	0.43	0.53
d, Delay for Lane Group [s/veh]	42.51	6.79	5.03	55.24	14.75	12.16	53.64	35.55	44.70	57.59	40.55
Lane Group LOS	D	A	A	E	B	B	D	D	D	E	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.44	2.29	0.04	0.26	3.79	0.62	1.23	1.15	3.87	0.27	2.22
50th-Percentile Queue Length [ft/ln]	160.95	57.23	1.12	6.62	94.82	15.60	30.86	28.83	96.73	6.78	55.60
95th-Percentile Queue Length [veh/ln]	10.60	4.12	0.08	0.48	6.83	1.12	2.22	2.08	6.96	0.49	4.00
95th-Percentile Queue Length [ft/ln]	264.98	103.02	2.02	11.91	170.68	28.07	55.55	51.90	174.11	12.20	100.07

Movement, Approach, & Intersection Results

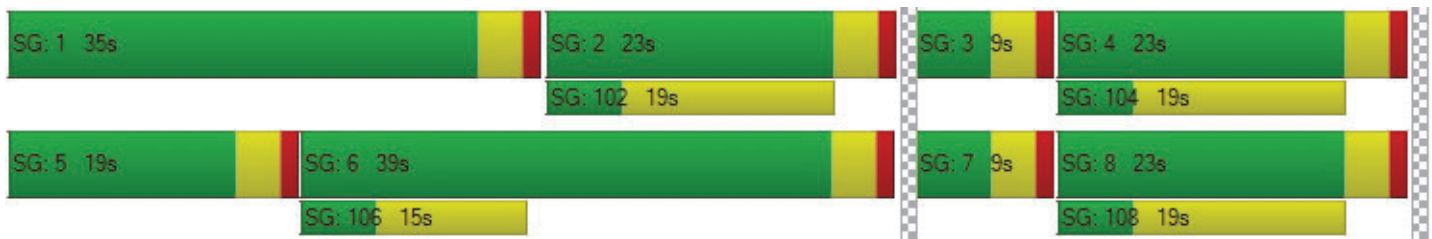
d_M, Delay for Movement [s/veh]	42.51	6.79	5.03	55.24	14.75	12.16	53.64	35.55	44.70	57.59	40.55	40.55
Movement LOS	D	A	A	E	B	B	D	D	D	E	D	D
d_A, Approach Delay [s/veh]	22.29			15.31			44.30			41.91		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	26.21											
Intersection LOS	C											
Intersection V/C	0.435											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.605	2.362	2.368	2.024
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]	778	422	422	422
d_b, Bicycle Delay [s]	16.81	28.01	28.01	28.01
I_b,int, Bicycle LOS Score for Intersection	2.672	2.185	2.015	1.746
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	4	1	7	1	4	59	65	0	1	48	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	4	1	8	1	4	66	73	0	1	54	6
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	2	0	1	19	21	0	0	16	2
Total Analysis Volume [veh/h]	0	5	1	9	1	5	77	85	0	1	63	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.01	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.76	11.30	8.57	10.74	11.32	8.58	7.45	0.00	0.00	7.36	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.06	0.06	0.06	0.16	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.73	0.73	0.73	1.58	1.58	1.58	3.93	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	10.85			10.06			3.54			0.10		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.14											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	7	4	15	0	3	1	73	0	1	50	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	4	17	0	3	1	82	0	1	56	38
Peak Hour Factor	0.9500	0.9500	0.9590	0.9590	0.9500	0.9500	0.9500	0.9590	0.9500	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	1	4	0	1	0	21	0	0	15	10
Total Analysis Volume [veh/h]	0	8	4	18	0	3	1	86	0	1	58	40
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.33	10.15	8.58	9.47	10.06	8.65	7.39	0.00	0.00	7.37	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.16	1.16	1.16	1.90	1.90	1.90	0.05	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	9.63			9.35			0.08			0.07		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	1.49											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.244

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	41	66	88	59	26	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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]	46	74	99	66	29	45
Peak Hour Factor	0.8440	0.9500	0.8440	0.8440	0.9500	0.8440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	19	29	20	8	13
Total Analysis Volume [veh/h]	55	78	117	78	31	53
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	636	808	800	655	720
Degree of Utilization, x	0.09	0.10	0.24	0.05	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.28	0.32	0.95	0.15	0.24
95th-Percentile Queue Length [ft]	7.07	7.99	23.87	3.72	5.94
Approach Delay [s/veh]	8.15		8.94	8.24	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.54				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	34.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇓⇑⇐			⇐⇑⇓⇑⇐			⇑⇓⇑⇓⇑⇓⇑			⇑⇓⇑⇓⇑⇓⇑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	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]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	69	197	24	62	234	26	3	37	46	53	69	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	285	0	275	122	0	0	0	0	0	0	92
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]	77	506	27	344	384	29	3	41	52	59	77	239
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]	20	133	7	91	101	8	1	11	14	16	20	63
Total Analysis Volume [veh/h]	81	533	28	362	404	31	3	43	55	62	81	252
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	31	38	0	9	27	0	9	27	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	34	20	48	0	16	16	4	20
g / C, Green / Cycle	0.06	0.37	0.22	0.54	0.00	0.18	0.18	0.04	0.22
(v / s)_i Volume / Saturation Flow Rate	0.04	0.30	0.20	0.23	0.00	0.02	0.03	0.03	0.20
s, saturation flow rate [veh/h]	1810	1883	1810	1876	1810	1900	1615	1810	1676
c, Capacity [veh/h]	107	702	403	1007	9	346	294	80	371
d1, Uniform Delay [s]	41.71	25.21	33.97	12.57	44.64	30.80	31.17	42.55	34.03
k, delay calibration	0.11	0.50	0.16	0.50	0.11	0.11	0.11	0.11	0.15
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.40	9.24	10.07	1.35	21.78	0.16	0.30	14.40	10.55
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.80	0.90	0.43	0.34	0.12	0.19	0.77	0.90
d, Delay for Lane Group [s/veh]	52.11	34.44	44.04	13.92	66.42	30.96	31.47	56.96	44.57
Lane Group LOS	D	C	D	B	E	C	C	E	D
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.02	11.65	8.21	4.78	0.12	0.77	1.00	1.64	7.79
50th-Percentile Queue Length [ft/ln]	50.54	291.26	205.13	119.40	2.94	19.21	24.99	41.02	194.70
95th-Percentile Queue Length [veh/ln]	3.64	17.25	12.90	8.36	0.21	1.38	1.80	2.95	12.36
95th-Percentile Queue Length [ft/ln]	90.97	431.20	322.57	209.01	5.29	34.58	44.98	73.84	309.12

Movement, Approach, & Intersection Results

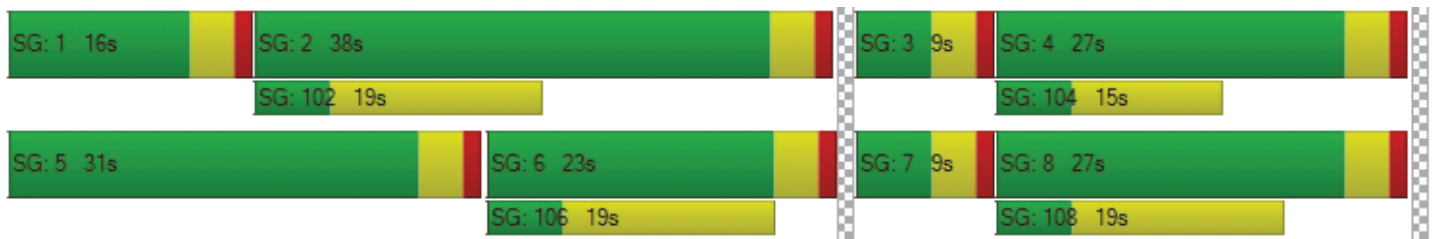
d_M, Delay for Movement [s/veh]	52.11	34.44	34.44	44.04	13.92	13.92	66.42	30.96	31.47	56.96	44.57	44.57
Movement LOS	D	C	C	D	B	B	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	36.67			27.60			32.29			46.52		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	34.72											
Intersection LOS	C											
Intersection V/C	0.698											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.511	2.800	2.228	2.402
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	756	511	511
d_b, Bicycle Delay [s]	28.01	17.42	24.94	24.94
I_b,int, Bicycle LOS Score for Intersection	2.619	2.875	1.726	2.211
Bicycle LOS	B	C	A	B

Sequence




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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	69.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.242

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	284	33	21	253	211	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	277	139	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]	318	37	24	560	375	149
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]	84	10	6	147	99	39
Total Analysis Volume [veh/h]	335	39	25	589	395	157
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	491	444	589	512	512	561
Degree of Utilization, x	0.76	0.06	1.24	0.36	0.36	0.33

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	6.61	0.18	23.68	1.62	1.62	1.42
95th-Percentile Queue Length [ft]	165.19	4.46	592.01	40.39	40.39	35.56
Approach Delay [s/veh]	30.13	144.07		13.14		
Approach LOS	D	F		B		
Intersection Delay [s/veh]	69.47					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	379.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.602

Intersection Setup

Name	I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	252	7	83	0	290	305	240	236	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	258	0	97	0	293	119	619	137	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]	0	0	0	540	8	190	0	618	461	888	401	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	142	2	50	0	163	121	234	106	0
Total Analysis Volume [veh/h]	0	0	0	568	8	200	0	651	485	935	422	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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	27	0	0	34	0	29	63	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		0.44	0.64	0.52	0.22
s, saturation flow rate [veh/h]		1756	1767	1810	1900
c, Capacity [veh/h]		354	589	600	1348
d1, Uniform Delay [s]		35.93	30.00	30.07	4.88
k, delay calibration		0.50	0.50	0.50	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		545.74	424.22	259.01	0.13
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		2.19	1.93	1.56	0.31
d, Delay for Lane Group [s/veh]		581.67	454.22	289.08	5.01
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		60.53	80.78	54.98	2.04
50th-Percentile Queue Length [ft/ln]		1513.29	2019.41	1374.43	51.10
95th-Percentile Queue Length [veh/ln]		95.15	127.57	84.50	3.68
95th-Percentile Queue Length [ft/ln]		2378.75	3189.23	2112.44	91.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	581.67	581.67	581.67	0.00	454.22	454.22	289.08	5.01	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			581.67				454.22		200.74		
Approach LOS	A			F				F		F		
d_I, Intersection Delay [s/veh]	379.25											
Intersection LOS	F											
Intersection V/C	1.602											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	511	667	1311
d_b, Bicycle Delay [s]	45.00	24.94	20.00	5.34
I_b,int, Bicycle LOS Score for Intersection	4.132	2.840	3.434	3.799
Bicycle LOS	D	C	C	D

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	409.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.583

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+						↶↑			↓↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	123	1	154	0	0	0	178	359	0	0	329	667
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	97	0	258	0	0	0	256	290	0	0	658	634
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]	235	1	430	0	0	0	455	692	0	0	1026	1381
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	62	0	113	0	0	0	120	182	0	0	270	363
Total Analysis Volume [veh/h]	247	1	453	0	0	0	479	728	0	0	1080	1454
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	0	0	0	17	67	0	0	50	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	26	60	30	30
g / C, Green / Cycle	0.25	0.29	0.66	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.42	0.26	0.38	0.57	0.90
s, saturation flow rate [veh/h]	1679	1810	1900	1900	1615
c, Capacity [veh/h]	417	515	1259	634	539
d1, Uniform Delay [s]	33.82	31.31	8.30	29.99	29.99
k, delay calibration	0.50	0.30	0.13	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	316.70	17.72	0.52	323.70	770.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.68	0.93	0.58	1.70	2.70
d, Delay for Lane Group [s/veh]	350.52	49.03	8.81	353.69	800.05
Lane Group LOS	F	D	A	F	F
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	44.64	12.29	6.70	70.08	126.35
50th-Percentile Queue Length [ft/ln]	1116.06	307.27	167.56	1751.96	3158.71
95th-Percentile Queue Length [veh/ln]	69.75	18.04	10.95	108.70	202.21
95th-Percentile Queue Length [ft/ln]	1743.79	451.01	273.70	2717.61	5055.24

Movement, Approach, & Intersection Results

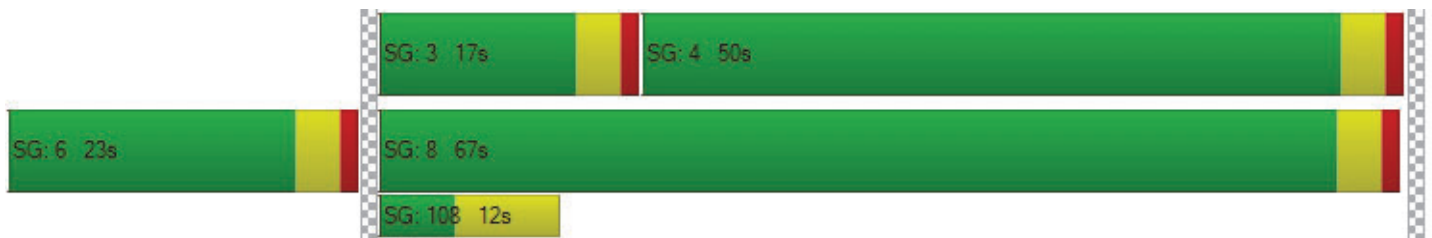
d_M, Delay for Movement [s/veh]	350.52	350.52	350.52	0.00	0.00	0.00	49.03	8.81	0.00	0.00	353.69	800.05
Movement LOS	F	F	F				D	A			F	F
d_A, Approach Delay [s/veh]	350.52			0.00			24.78			609.81		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	409.92											
Intersection LOS	F											
Intersection V/C	1.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.457	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	0	1400	1022
d_b, Bicycle Delay [s]	28.01	45.00	4.05	10.76
I_b,int, Bicycle LOS Score for Intersection	2.716	4.132	3.551	5.741
Bicycle LOS	B	D	D	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	119	240	139	290	672	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	360	1080	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]	133	269	156	685	1833	65
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]	35	71	41	180	482	17
Total Analysis Volume [veh/h]	140	283	164	721	1929	68
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	13	67	54	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	9	64	51	51
g / C, Green / Cycle	0.20	0.20	0.10	0.72	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.08	0.18	0.09	0.38	0.53	0.04
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	356	318	181	1357	2062	921
d1, Uniform Delay [s]	31.47	35.21	40.08	5.91	17.83	8.69
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]	0.71	8.52	15.26	1.49	9.53	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.89	0.91	0.53	0.94	0.07
d, Delay for Lane Group [s/veh]	32.18	43.73	55.35	7.41	27.36	8.84
Lane Group LOS	C	D	E	A	C	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.65	6.58	4.18	4.70	17.54	0.55
50th-Percentile Queue Length [ft/ln]	66.19	164.53	104.55	117.43	438.61	13.72
95th-Percentile Queue Length [veh/ln]	4.77	10.79	7.53	8.25	24.41	0.99
95th-Percentile Queue Length [ft/ln]	119.14	269.71	188.19	206.29	610.35	24.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.18	43.73	55.35	7.41	27.36	8.84
Movement LOS	C	D	E	A	C	A
d_A, Approach Delay [s/veh]	39.91		16.29		26.73	
Approach LOS	D		B		C	
d_I, Intersection Delay [s/veh]	25.62					
Intersection LOS	C					
Intersection V/C	0.799					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.190	3.265	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	1111
d_b, Bicycle Delay [s]	28.01	4.05	8.89
I_b,int, Bicycle LOS Score for Intersection	1.560	3.020	3.207
Bicycle LOS	A	C	C

Sequence





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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	200.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.153

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	57	194	61	28	246	183	91	238	66	70	459	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	15	349	100	46	33	11	189	0	1047	499	292
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]	64	232	417	131	322	238	113	456	74	1125	1013	352
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]	17	61	110	34	85	63	30	120	19	296	267	93
Total Analysis Volume [veh/h]	67	244	439	138	339	251	119	480	78	1184	1066	371
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	26	0	9	26	0	23	26	0	29	32	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	23	23	5	23	23	8	21	21	25	39	39
g / C, Green / Cycle	0.05	0.25	0.25	0.06	0.26	0.26	0.08	0.24	0.24	0.28	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.04	0.13	0.27	0.08	0.17	0.17	0.07	0.15	0.15	0.65	0.38	0.41
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1636	1810	1900	1809	1810	1900	1741
c, Capacity [veh/h]	87	480	408	101	495	426	152	448	427	503	816	748
d1, Uniform Delay [s]	42.37	28.82	33.62	42.50	29.51	29.56	40.40	30.90	30.93	32.50	23.54	24.92
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50	0.36	0.42
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.58	3.80	66.07	180.94	6.17	7.29	8.39	1.50	1.60	616.15	9.88	21.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.51	1.08	1.37	0.64	0.64	0.78	0.64	0.64	2.36	0.88	0.96
d, Delay for Lane Group [s/veh]	55.94	32.62	99.69	223.44	35.68	36.85	48.79	32.40	32.52	648.65	33.42	46.86
Lane Group LOS	E	C	F	F	D	D	D	C	C	F	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.75	4.81	15.89	7.21	6.59	5.86	2.82	5.40	5.17	96.43	15.10	18.17
50th-Percentile Queue Length [ft/ln]	43.76	120.17	397.18	180.27	164.76	146.49	70.44	134.88	129.33	2410.77	377.44	454.29
95th-Percentile Queue Length [veh/ln]	3.15	8.40	23.37	12.60	10.80	9.83	5.07	9.20	8.90	152.39	21.47	25.16
95th-Percentile Queue Length [ft/ln]	78.77	210.06	584.34	315.02	270.02	245.74	126.80	230.11	222.58	3809.75	536.75	629.07

Movement, Approach, & Intersection Results

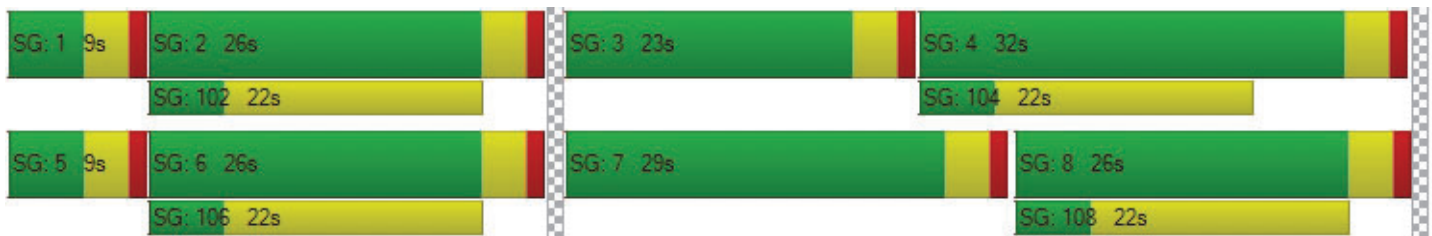
d_M, Delay for Movement [s/veh]	55.94	32.62	99.69	223.44	35.76	36.85	48.79	32.45	32.52	648.65	37.80	46.86
Movement LOS	E	C	F	F	D	D	D	C	C	F	D	D
d_A, Approach Delay [s/veh]	73.96			71.71			35.33			315.03		
Approach LOS	E			E			D			F		
d_I, Intersection Delay [s/veh]	200.44											
Intersection LOS	F											
Intersection V/C	1.153											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.913	2.681	2.904	3.138
Crosswalk LOS	C	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	489	622
d_b, Bicycle Delay [s]	25.69	25.69	25.69	21.36
I_b,int, Bicycle LOS Score for Intersection	2.178	2.160	2.118	3.722
Bicycle LOS	B	B	B	D

Sequence

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



Beaumont Summit Station

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 Report File: \\...\\5 OY 2027 CUM PM.pdf

Scenario 7 OY 2027 CUM PM
 2/4/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	SB Right	3.142	566.0	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Left	1.816	306.7	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	1.185	310.2	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.302	32.6	D
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	0.943	30.6	D
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	0.885	25.2	D
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.639	31.8	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.015	12.4	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.006	12.0	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	NB Left	0.209	8.9	A
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	SB Left	0.849	60.3	E
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.665	127.0	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	2.183	1,036.3	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	2.026	566.0	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Thru	1.186	105.3	F
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	1.852	388.7	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For

all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	566.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.142

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	288	4	542	0	393	125	24	270	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	202	0	481	0	376	373	125	481	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	525	4	1088	0	816	513	152	783	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	138	1	286	0	215	135	40	206	0
Total Analysis Volume [veh/h]	0	0	0	553	4	1145	0	859	540	160	824	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1702	1399	984
Degree of Utilization, x		3.14	1.73	1.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		149.32	80.36	37.45
95th-Percentile Queue Length [ft]		3733.00	2008.99	936.22
Approach Delay [s/veh]	0.00	983.35	346.49	156.29
Approach LOS	A	F	F	F
Intersection Delay [s/veh]	566.02			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	306.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.816

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	181	4	22	0	0	0	304	378	0	0	119	255
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	481	0	202	0	0	0	373	202	0	0	125	60
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]	684	4	227	0	0	0	713	625	0	0	258	346
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	180	1	60	0	0	0	188	164	0	0	68	91
Total Analysis Volume [veh/h]	720	4	239	0	0	0	751	658	0	0	272	364
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	963		1409	829
Degree of Utilization, x	1.79		1.82	0.77

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	59.39		85.31	7.53
95th-Percentile Queue Length [ft]	1484.75		2132.73	188.28
Approach Delay [s/veh]	381.97	0.00	384.69	20.09
Approach LOS	F	A	F	C
Intersection Delay [s/veh]	306.73			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	310.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.185

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	74	49	41	382	307	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	66	113	290	185	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]	83	121	159	718	529	69
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]	22	32	42	189	139	18
Total Analysis Volume [veh/h]	87	127	167	756	557	73
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	1.18	0.25	0.17	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	310.16	268.21	9.53	0.00	0.00	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	13.88	13.88	0.63	0.63	0.00	0.00
95th-Percentile Queue Length [ft/ln]	346.99	346.99	15.66	15.66	0.00	0.00
d_A, Approach Delay [s/veh]	285.26		1.72		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	35.45					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	32.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.302

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	39	1	416	38	0	312
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	9	0	212	15	0	156
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]	53	1	678	58	0	505
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]	14	0	178	15	0	133
Total Analysis Volume [veh/h]	56	1	714	61	0	532
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	0.30	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	32.57	21.80	0.00	0.00	9.24	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.22	1.22	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	30.49	30.49	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	32.38		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	1.35					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	30.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.943

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	18	3	1	2	4	31	61	341	15	3	261	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	216	0	0	163	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]	20	3	1	2	4	35	68	598	17	3	455	2
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]	5	1	0	1	1	9	18	157	4	1	120	1
Total Analysis Volume [veh/h]	21	3	1	2	4	37	72	629	18	3	479	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	521	583	762	726
Degree of Utilization, x	0.05	0.07	0.94	0.67

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.15	0.24	13.94	5.14
95th-Percentile Queue Length [ft]	3.77	5.96	348.62	128.39
Approach Delay [s/veh]	10.25	9.67	41.55	17.31
Approach LOS	B	A	E	C
Intersection Delay [s/veh]	30.63			
Intersection LOS	D			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	25.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.885

Intersection Setup

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			+r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	33	19	6	12	17	18	21	303	25	10	217	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	35	0	0	0	0	0	0	181	35	0	128	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]	72	21	7	13	19	20	24	520	63	11	371	9
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]	19	6	2	3	5	5	6	137	17	3	98	2
Total Analysis Volume [veh/h]	76	22	7	14	20	21	25	547	66	12	391	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	534	541	646	743	621	709
Degree of Utilization, x	0.20	0.10	0.89	0.09	0.65	0.01

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.72	0.34	10.72	0.29	4.73	0.04
95th-Percentile Queue Length [ft]	18.12	8.43	268.03	7.28	118.34	0.96
Approach Delay [s/veh]	11.39	10.40	33.23		18.37	
Approach LOS	B	B	D		C	
Intersection Delay [s/veh]	25.24					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	31.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	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	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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	132	254	26	16	228	54	60	87	174	15	59	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	128	86	0	0	147	0	0	0	181	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]	276	370	29	18	402	60	67	97	376	17	66	11
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]	73	97	8	5	106	16	18	26	99	4	17	3
Total Analysis Volume [veh/h]	291	389	31	19	423	63	71	102	396	18	69	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	35	0	9	23	0	23	37	0	9	23	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	46	46	2	32	32	5	24	24	2	22
g / C, Green / Cycle	0.18	0.51	0.51	0.02	0.35	0.35	0.05	0.27	0.27	0.02	0.24
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.02	0.01	0.22	0.04	0.04	0.05	0.25	0.01	0.04
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1852
c, Capacity [veh/h]	326	966	821	39	665	565	97	516	439	37	442
d1, Uniform Delay [s]	36.05	13.68	11.09	43.54	24.48	19.80	41.97	25.22	31.62	43.59	27.25
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.17	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.48	1.25	0.09	9.12	4.61	0.40	10.24	0.19	10.43	9.26	0.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.40	0.04	0.49	0.64	0.11	0.73	0.20	0.90	0.48	0.18
d, Delay for Lane Group [s/veh]	44.54	14.93	11.18	52.66	29.09	20.20	52.20	25.41	42.05	52.85	27.45
Lane Group LOS	D	B	B	D	C	C	D	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.56	4.49	0.29	0.51	8.00	0.92	1.78	1.63	9.07	0.48	1.35
50th-Percentile Queue Length [ft/ln]	164.03	112.15	7.20	12.72	199.98	23.10	44.47	40.74	226.84	12.02	33.79
95th-Percentile Queue Length [veh/ln]	10.76	7.96	0.52	0.92	12.64	1.66	3.20	2.93	14.01	0.87	2.43
95th-Percentile Queue Length [ft/ln]	269.05	198.99	12.95	22.90	315.94	41.57	80.05	73.33	350.35	21.64	60.82

Movement, Approach, & Intersection Results

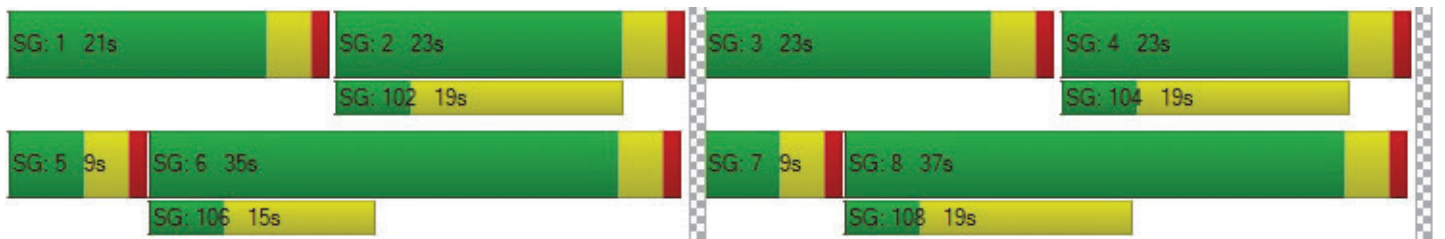
d_M, Delay for Movement [s/veh]	44.54	14.93	11.18	52.66	29.09	20.20	52.20	25.41	42.05	52.85	27.45	27.45
Movement LOS	D	B	B	D	C	C	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	26.89			28.87			40.34			32.07		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	31.75											
Intersection LOS	C											
Intersection V/C	0.639											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.761	2.410	2.455	2.050
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	689	422	733	422
d_b, Bicycle Delay [s]	19.34	28.01	18.05	28.01
I_b,int, Bicycle LOS Score for Intersection	2.733	2.393	2.498	1.723
Bicycle LOS	B	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	3	2	5	18	5	18	24	95	1	3	108	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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]	3	2	6	20	6	20	27	106	1	3	121	24
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	2	7	2	7	9	36	0	1	41	8
Total Analysis Volume [veh/h]	4	3	8	27	8	27	36	143	1	4	163	32
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	0.01	0.01	0.05	0.02	0.03	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.37	12.12	8.77	11.70	12.39	9.32	7.66	0.00	0.00	7.49	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.30	0.30	0.30	0.08	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.60	1.60	1.60	7.41	7.41	7.41	1.99	0.00	0.00	0.21	0.00	0.00
d_A, Approach Delay [s/veh]	10.13			10.76			1.53			0.15		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.47											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave**

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	1	1	9	13	2	7	4	113	2	5	125	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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]	1	1	10	15	2	8	4	127	2	6	140	21
Peak Hour Factor	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	5	1	3	1	42	1	2	46	7
Total Analysis Volume [veh/h]	1	1	13	20	3	11	5	169	3	8	186	28
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	10.84	11.87	8.81	11.18	11.97	9.14	7.64	0.00	0.00	7.55	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.16	0.16	0.16	0.01	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.30	1.30	1.30	3.95	3.95	3.95	0.28	0.00	0.00	0.43	0.00	0.00
d_A, Approach Delay [s/veh]	9.15			10.59			0.22			0.27		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	1.33											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.209

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	63	27	67	72	71	129
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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]	71	30	75	81	80	144
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]	19	8	20	21	21	38
Total Analysis Volume [veh/h]	75	32	79	85	84	152
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	605	759	788	661	728
Degree of Utilization, x	0.12	0.04	0.21	0.13	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.42	0.13	0.78	0.43	0.78
95th-Percentile Queue Length [ft]	10.53	3.30	19.50	10.85	19.58
Approach Delay [s/veh]	8.94		8.76	8.94	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.88				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	60.3
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.849

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇈			⇈⇐			⇈⇈⇈			⇈⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	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]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	50	280	74	113	290	13	27	71	93	60	43	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	214	0	181	328	0	0	0	0	0	0	309
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]	56	528	83	308	653	15	30	80	104	67	48	428
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]	15	139	22	81	172	4	8	21	27	18	13	113
Total Analysis Volume [veh/h]	59	556	87	324	687	16	32	84	109	71	51	451
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	34	0	19	41	0	9	23	0	14	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	30	15	41	3	24	24	5	26
g / C, Green / Cycle	0.04	0.33	0.17	0.46	0.03	0.27	0.27	0.05	0.29
(v / s)_i Volume / Saturation Flow Rate	0.03	0.35	0.18	0.37	0.02	0.04	0.07	0.04	0.31
s, saturation flow rate [veh/h]	1810	1856	1810	1892	1810	1900	1615	1810	1640
c, Capacity [veh/h]	78	621	302	867	56	512	435	93	476
d1, Uniform Delay [s]	42.58	29.94	37.50	21.02	43.03	25.12	25.75	42.15	31.95
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.39
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.62	45.53	47.04	8.12	9.00	0.15	0.30	12.17	51.93
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	1.04	1.07	0.81	0.57	0.16	0.25	0.76	1.06
d, Delay for Lane Group [s/veh]	56.20	75.46	84.54	29.14	52.03	25.27	26.05	54.32	83.87
Lane Group LOS	E	F	F	C	D	C	C	D	F
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.55	20.28	10.11	12.88	0.82	1.33	1.78	1.82	16.51
50th-Percentile Queue Length [ft/ln]	38.78	506.99	252.69	321.92	20.50	33.28	44.46	45.51	412.66
95th-Percentile Queue Length [veh/ln]	2.79	28.31	15.84	18.76	1.48	2.40	3.20	3.28	23.95
95th-Percentile Queue Length [ft/ln]	69.81	707.87	396.10	469.04	36.90	59.90	80.02	81.92	598.64

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.20	75.46	75.46	84.54	29.14	29.14	52.03	25.27	26.05	54.32	83.87	83.87
Movement LOS	E	E	E	F	C	C	D	C	C	D	F	F
d_A, Approach Delay [s/veh]	73.85			46.62			29.45			80.21		
Approach LOS	E			D			C			F		
d_I, Intersection Delay [s/veh]	60.27											
Intersection LOS	E											
Intersection V/C	0.849											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.643	3.061	2.247	2.480
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	822	422	533
d_b, Bicycle Delay [s]	20.00	15.61	28.01	24.20
I_b,int, Bicycle LOS Score for Intersection	2.718	3.254	1.931	2.505
Bicycle LOS	B	C	A	B

Sequence




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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	127.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.665

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	200	42	50	311	255	245
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	357	454	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]	224	47	56	705	740	274
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]	59	12	15	186	195	72
Total Analysis Volume [veh/h]	236	49	59	742	779	288
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	455	419	742	536	536	586
Degree of Utilization, x	0.63	0.14	1.67	0.66	0.66	0.61

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.21	0.49	43.45	4.86	4.86	4.06
95th-Percentile Queue Length [ft]	105.23	12.17	1086.27	121.53	121.53	101.54
Approach Delay [s/veh]	23.33	305.78		20.39		
Approach LOS	C	F		C		
Intersection Delay [s/veh]	126.95					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	1,036.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.183

Intersection Setup

Name	I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	520	8	142	0	265	223	158	377	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	853	0	324	0	328	122	579	436	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]	0	0	0	1435	9	483	0	625	372	756	858	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	378	2	127	0	164	98	199	226	0
Total Analysis Volume [veh/h]	0	0	0	1511	9	508	0	658	392	796	903	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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	45	0	0	25	0	20	45	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		1.15	0.59	0.44	0.48
s, saturation flow rate [veh/h]		1757	1783	1810	1900
c, Capacity [veh/h]		355	594	600	1347
d1, Uniform Delay [s]		35.91	30.01	30.08	7.25
k, delay calibration		0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2128.67	352.47	158.29	2.64
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		5.72	1.77	1.33	0.67
d, Delay for Lane Group [s/veh]		2164.59	382.47	188.37	9.90
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		216.65	69.61	38.16	7.32
50th-Percentile Queue Length [ft/ln]		5416.25	1740.29	954.09	183.11
95th-Percentile Queue Length [veh/ln]		326.98	108.98	56.89	11.76
95th-Percentile Queue Length [ft/ln]		8174.51	2724.46	1422.35	294.07

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	2164.59	2164.59	2164.59	0.00	382.47	382.47	188.37	9.90	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			2164.59			382.47			93.51		
Approach LOS	A			F			F			F		
d_I, Intersection Delay [s/veh]	1036.27											
Intersection LOS	F											
Intersection V/C	2.183											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	911	467	911
d_b, Bicycle Delay [s]	45.00	13.34	26.45	13.34
I_b,int, Bicycle LOS Score for Intersection	4.132	4.906	3.292	4.363
Bicycle LOS	D	E	C	E

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	566.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.026

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound						Southbound			Eastbound			Westbound		
Lane Configuration	+									↶			↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00			
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1			
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0			
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Speed [mph]	65.00			30.00			30.00			30.00					
Grade [%]	0.00			0.00			0.00			0.00					
Curb Present	No						No			No					
Crosswalk	Yes			No			No			No					

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	241	7	246	0	0	0	116	668	0	0	294	333
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	324	0	853	0	0	0	213	950	0	0	691	590
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]	594	8	1129	0	0	0	343	1698	0	0	1020	963
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000	1.0000	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]	156	2	297	0	0	0	90	447	0	0	268	253
Total Analysis Volume [veh/h]	625	8	1188	0	0	0	361	1787	0	0	1074	1014
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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	49	0	0	0	0	12	41	0	0	29	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C		L	C	C	R
C, Cycle Length [s]	90		90	90	90	90
L, Total Lost Time per Cycle [s]	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28		20	54	30	30
g / C, Green / Cycle	0.31		0.22	0.60	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	1.09		0.20	0.94	0.57	0.63
s, saturation flow rate [veh/h]	1678		1810	1900	1900	1615
c, Capacity [veh/h]	523		401	1139	633	538
d1, Uniform Delay [s]	30.97		34.06	18.03	30.00	30.00
k, delay calibration	0.50		0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1121.06		10.28	260.48	320.04	404.79
d3, Initial Queue Delay [s]	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	3.48		0.90	1.57	1.70	1.88
d, Delay for Lane Group [s/veh]	1152.03		44.34	278.51	350.04	434.79
Lane Group LOS	F		D	F	F	F
Critical Lane Group	Yes		No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	172.62		8.61	102.59	69.38	71.65
50th-Percentile Queue Length [ft/ln]	4315.53		215.20	2564.66	1734.55	1791.14
95th-Percentile Queue Length [veh/ln]	272.92		13.42	159.01	107.56	113.46
95th-Percentile Queue Length [ft/ln]	6822.88		335.50	3975.28	2688.91	2836.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1152.03	1152.03	1152.03	0.00	0.00	0.00	44.34	278.51	0.00	0.00	350.04	434.79
Movement LOS	F	F	F				D	F			F	F
d_A, Approach Delay [s/veh]	1152.03			0.00			239.15			391.20		
Approach LOS	F			A			F			F		
d_I, Intersection Delay [s/veh]	566.02											
Intersection LOS	F											
Intersection V/C	2.026											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	3.640	0.000	0.000	0.000
Crosswalk LOS	D	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	0	822	556
d_b, Bicycle Delay [s]	11.25	45.00	15.61	23.47
I_b,int, Bicycle LOS Score for Intersection	4.564	4.132	5.104	5.005
Bicycle LOS	E	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	105.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.186

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	100	141	193	662	457	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	1214	712	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]	112	158	216	1955	1224	149
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]	29	42	57	514	322	39
Total Analysis Volume [veh/h]	118	166	227	2058	1288	157
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	37	67	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	13	71	53	53
g / C, Green / Cycle	0.13	0.13	0.15	0.78	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.07	0.10	0.13	1.08	0.36	0.10
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	230	206	271	1489	2134	953
d1, Uniform Delay [s]	36.66	38.19	37.22	9.73	11.76	8.39
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]	1.76	7.29	6.85	176.18	1.28	0.37
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	0.51	0.81	0.84	1.38	0.60	0.16
d, Delay for Lane Group [s/veh]	38.41	45.49	44.07	185.91	13.03	8.76
Lane Group LOS	D	D	D	F	B	A
Critical Lane Group	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.47	3.88	5.11	85.53	7.06	1.26
50th-Percentile Queue Length [ft/ln]	61.85	96.96	127.76	2138.18	176.40	31.50
95th-Percentile Queue Length [veh/ln]	4.45	6.98	8.82	129.18	11.41	2.27
95th-Percentile Queue Length [ft/ln]	111.34	174.52	220.45	3229.53	285.31	56.69

Movement, Approach, & Intersection Results

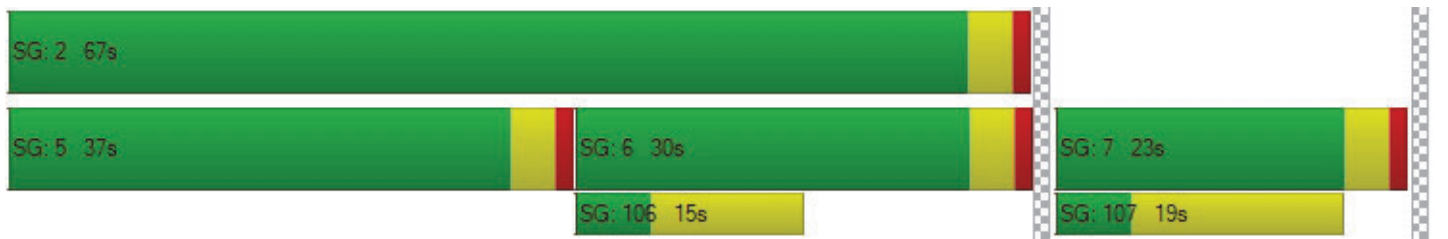
d_M, Delay for Movement [s/veh]	38.41	45.49	44.07	185.91	13.03	8.76
Movement LOS	D	D	D	F	B	A
d_A, Approach Delay [s/veh]	42.55		171.82		12.57	
Approach LOS	D		F		B	
d_I, Intersection Delay [s/veh]	105.35					
Intersection LOS	F					
Intersection V/C	1.186					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.195	3.500	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	578
d_b, Bicycle Delay [s]	28.01	4.05	22.76
I_b,int, Bicycle LOS Score for Intersection	1.560	5.330	2.752
Bicycle LOS	A	F	C

Sequence





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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	388.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.852

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	85	338	59	89	229	171	227	391	77	93	382	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	51	1177	336	30	22	37	633	0	690	418	204
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]	95	430	1243	436	286	214	291	1071	86	794	846	299
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]	25	113	327	115	75	56	77	282	23	209	223	79
Total Analysis Volume [veh/h]	100	453	1308	459	301	225	306	1127	91	836	891	315
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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	13	30	0	15	26	0	20	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	27	27	9	30	30	11	22	22	16	27	27
g / C, Green / Cycle	0.07	0.30	0.30	0.10	0.33	0.33	0.12	0.24	0.24	0.18	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.06	0.24	0.81	0.25	0.15	0.15	0.17	0.32	0.33	0.46	0.32	0.35
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1633	1810	1900	1851	1810	1900	1740
c, Capacity [veh/h]	132	570	485	181	622	534	221	464	452	322	570	522
d1, Uniform Delay [s]	40.95	28.95	31.50	40.50	23.93	23.93	39.50	34.00	34.00	37.00	31.50	31.50
k, delay calibration	0.11	0.50	0.50	0.28	0.50	0.50	0.11	0.43	0.44	0.50	0.42	0.48
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.63	10.93	770.72	700.39	2.39	2.78	178.74	157.89	163.08	728.42	50.71	89.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.79	2.70	2.54	0.45	0.45	1.38	1.32	1.33	2.60	1.06	1.16
d, Delay for Lane Group [s/veh]	49.58	39.89	802.22	740.89	26.32	26.71	218.24	191.89	197.08	765.42	82.21	120.74
Lane Group LOS	D	D	F	F	C	C	F	F	F	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.42	10.15	113.53	39.06	4.88	4.26	15.61	29.79	29.67	71.92	19.75	23.67
50th-Percentile Queue Length [ft/ln]	60.47	253.87	2838.20	976.44	122.12	106.41	390.29	744.72	741.74	1797.91	493.64	591.63
95th-Percentile Queue Length [veh/ln]	4.35	15.38	180.83	61.08	8.51	7.64	24.92	44.76	44.74	112.18	28.01	34.51
95th-Percentile Queue Length [ft/ln]	108.85	384.53	4520.87	1526.96	212.73	191.00	622.88	1118.91	1118.49	2804.51	700.34	862.86

Movement, Approach, & Intersection Results

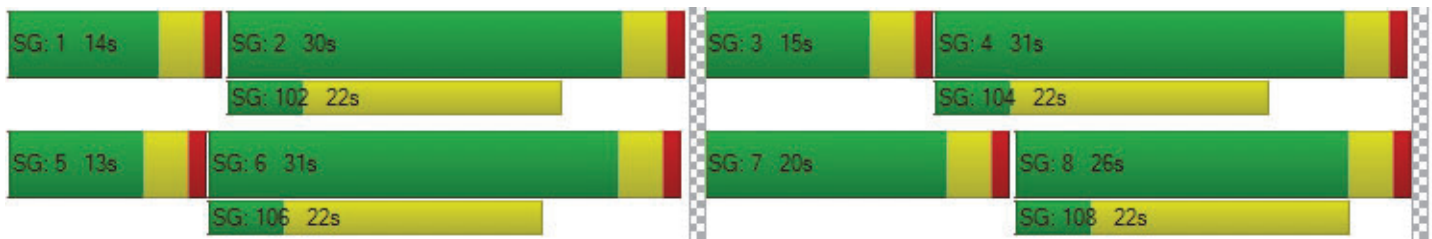
d_M, Delay for Movement [s/veh]	49.58	39.89	802.22	740.89	26.35	26.71	218.24	194.25	197.08	765.42	94.66	120.74
Movement LOS	D	D	F	F	C	C	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	576.21			359.40			199.23			373.30		
Approach LOS	F			F			F			F		
d_I, Intersection Delay [s/veh]	388.68											
Intersection LOS	F											
Intersection V/C	1.852											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.105	2.837	3.103	3.424
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	578	489	600
d_b, Bicycle Delay [s]	22.05	22.76	25.69	22.05
I_b,int, Bicycle LOS Score for Intersection	3.095	2.372	2.817	3.244
Bicycle LOS	C	B	C	C

Sequence

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



Beaumont Summit Station

Vistro File: \\...\\Cherry Valley AM.vistro

Scenario 8 OY 2027 CUM WP AM

Report File: \\...\\6 OY 2027 CUM WP AM.pdf

2/4/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.095	410.8	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Left	2.333	376.4	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	1.044	385.3	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.773	81.0	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	1.092	52.5	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	1.003	36.7	E
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.480	28.2	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.002	11.6	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	NB Thru	0.013	10.7	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.402	10.3	B
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	EB Left	0.735	37.8	D
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.299	79.0	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	1.658	404.8	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Right	1.625	429.1	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Left	0.886	44.6	D
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Left	1.162	200.5	F
101	Cherry Valley Blvd at West Project Dwy	Signalized	HCM 6th Edition	WB Left	0.575	4.4	A
	Cherry Valley Blvd at Middle		HCM 6th				

102	Cherry Valley Blvd at Middle Project Dwy	Signalized	HCM 6th Edition	NB Left	0.577	8.6	A
103	Cherry Valley Blvd at East Project Dwy	Two-way stop	HCM 6th Edition	NB Right	0.190	11.1	B

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

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	410.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.095

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	137	0	315	0	696	211	24	149	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	68	0	150	0	300	299	176	150	0
Site-Generated Trips [veh/h]	0	0	0	318	0	0	0	22	0	53	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]	0	0	0	539	0	503	0	1102	535	256	332	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	142	0	132	0	290	141	67	87	0
Total Analysis Volume [veh/h]	0	0	0	567	0	529	0	1160	563	269	349	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1096	1723	755
Degree of Utilization, x		2.01	2.09	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		74.22	118.04	8.92
95th-Percentile Queue Length [ft]		1855.50	2951.09	222.96
Approach Delay [s/veh]	0.00	474.77	508.36	25.50
Approach LOS	A	F	F	D
Intersection Delay [s/veh]	410.83			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	376.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.333

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	91	1	22	0	0	0	692	156	0	0	55	442
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	150	0	68	0	0	0	299	68	0	0	176	92
Site-Generated Trips [veh/h]	0	0	219	0	0	0	0	340	0	0	68	101
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	252	1	312	0	0	0	1074	583	0	0	306	688
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	66	0	82	0	0	0	283	153	0	0	81	181
Total Analysis Volume [veh/h]	265	1	328	0	0	0	1131	614	0	0	322	724
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	594		1745	1046
Degree of Utilization, x	1.11		2.33	1.24




Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	19.15		129.68	36.21
95th-Percentile Queue Length [ft]	478.67		3242.11	905.19
Approach Delay [s/veh]	98.46	0.00	616.07	134.39
Approach LOS	F	A	F	F
Intersection Delay [s/veh]	376.40			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	385.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.044

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	42	25	30	166	478	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	101	34	101	251	0
Site-Generated Trips [veh/h]	0	0	0	559	169	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]	47	129	68	846	955	65
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]	12	34	18	223	251	17
Total Analysis Volume [veh/h]	49	136	72	891	1005	68
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	1.04	0.48	0.11	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	385.31	321.33	11.15	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	13.22	13.22	0.37	0.37	0.00	0.00
95th-Percentile Queue Length [ft/ln]	330.39	330.39	9.18	9.18	0.00	0.00
d_A, Approach Delay [s/veh]	338.28		0.83		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	28.54					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	81.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.773

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	70	0	176	13	0	470
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	13	0	97	4	0	176
Site-Generated Trips [veh/h]	22	0	131	15	0	197
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]	113	0	425	34	0	899
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]	30	0	112	9	0	237
Total Analysis Volume [veh/h]	119	0	447	36	0	946
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	0.77	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	81.04	63.63	0.00	0.00	8.30	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.85	4.85	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	121.17	121.17	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	81.04		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	6.23					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	52.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.092

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	50	1	1	0	3	96	24	139	12	1	315	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	104	0	0	178	0
Site-Generated Trips [veh/h]	44	0	0	0	0	0	0	101	30	0	153	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]	100	1	1	0	3	108	27	361	43	1	684	1
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]	26	0	0	0	1	28	7	95	11	0	180	0
Total Analysis Volume [veh/h]	105	1	1	0	3	114	28	380	45	1	720	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	495	553	638	722
Degree of Utilization, x	0.22	0.21	0.71	1.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.81	0.79	5.85	20.68
95th-Percentile Queue Length [ft]	20.35	19.85	146.13	516.97
Approach Delay [s/veh]	12.27	11.25	21.18	84.78
Approach LOS	B	B	C	F
Intersection Delay [s/veh]	52.49			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	36.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.003

Intersection Setup

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			+r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	17	18	4	5	24	34	16	94	41	3	308	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	24	0	0	0	0	0	0	78	26	0	154	0
Site-Generated Trips [veh/h]	65	0	0	0	0	0	0	60	41	0	88	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]	108	20	4	6	27	38	18	243	113	3	587	1
Peak Hour Factor	0.9400	0.9400	0.9400	0.9500	0.9400	0.9500	0.9500	0.9500	0.9400	0.9400	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]	29	5	1	2	7	10	5	64	30	1	154	0
Total Analysis Volume [veh/h]	115	21	4	6	29	40	19	256	120	3	618	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	515	531	584	665	621	705
Degree of Utilization, x	0.27	0.14	0.47	0.18	1.00	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.09	0.49	2.51	0.65	15.39	0.00
95th-Percentile Queue Length [ft]	27.33	12.24	62.68	16.37	384.86	0.11
Approach Delay [s/veh]	12.57	10.90	12.73		60.47	
Approach LOS	B	B	B		F	
Intersection Delay [s/veh]	36.70					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	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	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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	111	198	8	8	224	50	41	50	74	8	81	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	154	131	0	0	44	0	0	0	78	0	0	0
Site-Generated Trips [veh/h]	44	0	0	0	0	22	15	15	30	0	22	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]	322	353	9	9	295	78	61	71	191	9	113	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]	85	93	2	2	78	21	16	19	50	2	30	2
Total Analysis Volume [veh/h]	339	372	9	9	311	82	64	75	201	9	119	8
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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	35	39	0	19	23	0	9	23	0	9	23	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	59	59	1	41	41	4	13	13	1	10
g / C, Green / Cycle	0.21	0.65	0.65	0.01	0.45	0.45	0.05	0.15	0.15	0.01	0.11
(v / s)_i Volume / Saturation Flow Rate	0.19	0.20	0.01	0.00	0.16	0.05	0.04	0.04	0.12	0.00	0.07
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1879
c, Capacity [veh/h]	382	1234	1049	22	856	728	83	283	240	21	215
d1, Uniform Delay [s]	34.44	6.87	5.56	44.11	16.24	14.31	42.48	33.95	37.25	44.19	37.84
k, delay calibration	0.12	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.47	0.63	0.01	11.13	1.19	0.31	14.10	0.50	7.54	13.40	2.57
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.30	0.01	0.40	0.36	0.11	0.77	0.27	0.84	0.43	0.59
d, Delay for Lane Group [s/veh]	41.90	7.50	5.57	55.24	17.43	14.62	56.58	34.45	44.79	57.59	40.41
Lane Group LOS	D	A	A	E	B	B	E	C	D	E	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.44	2.50	0.05	0.26	4.23	0.98	1.69	1.44	4.62	0.27	2.71
50th-Percentile Queue Length [ft/ln]	185.91	62.58	1.23	6.62	105.78	24.51	42.14	36.01	115.58	6.78	67.87
95th-Percentile Queue Length [veh/ln]	11.91	4.51	0.09	0.48	7.60	1.76	3.03	2.59	8.15	0.49	4.89
95th-Percentile Queue Length [ft/ln]	297.72	112.64	2.21	11.91	190.12	44.12	75.85	64.81	203.74	12.20	122.17

Movement, Approach, & Intersection Results

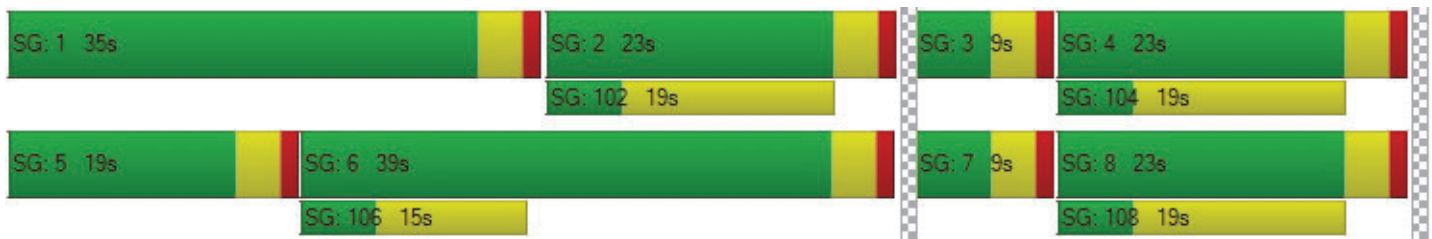
d_M, Delay for Movement [s/veh]	41.90	7.50	5.57	55.24	17.43	14.62	56.58	34.45	44.79	57.59	40.41	40.41
Movement LOS	D	A	A	E	B	B	E	C	D	E	D	D
d_A, Approach Delay [s/veh]	23.67			17.71			44.73			41.55		
Approach LOS	C			B			D			D		
d_I, Intersection Delay [s/veh]	28.17											
Intersection LOS	C											
Intersection V/C	0.480											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0			9.0			9.0			9.0		
M_corner, Corner Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00			0.00			0.00			0.00		
d_p, Pedestrian Delay [s]	36.45			36.45			36.45			36.45		
I_p,int, Pedestrian LOS Score for Intersection	2.637			2.373			2.419			2.041		
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]	778			422			422			422		
d_b, Bicycle Delay [s]	16.81			28.01			28.01			28.01		
I_b,int, Bicycle LOS Score for Intersection	2.748			2.223			2.121			1.784		
Bicycle LOS	B			B			B			A		

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	4	1	7	1	4	59	65	0	1	48	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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	15	0	0	0	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	4	1	23	1	4	66	73	0	1	54	28
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	7	0	1	19	21	0	0	16	8
Total Analysis Volume [veh/h]	0	5	1	27	1	5	77	85	0	1	63	33
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.04	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.77	11.52	8.57	11.05	11.62	8.83	7.51	0.00	0.00	7.36	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.16	0.16	0.16	0.16	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.75	0.75	0.75	3.93	3.93	3.93	4.03	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	11.03			10.73			3.57			0.08		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	3.38											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	7	4	15	0	3	1	73	0	1	50	34
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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	30	0	0	0	15	0	0	22	44
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	8	4	47	0	3	1	97	0	1	78	82
Peak Hour Factor	0.9500	0.9500	0.9590	0.9590	0.9500	0.9500	0.9500	0.9590	0.9500	0.9590	0.9590	0.9590
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	1	12	0	1	0	25	0	0	20	21
Total Analysis Volume [veh/h]	0	8	4	49	0	3	1	101	0	1	81	86
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.53	10.73	8.64	10.10	10.69	9.07	7.53	0.00	0.00	7.40	0.00	0.00
Movement LOS	A	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.22	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.26	1.26	1.26	5.45	5.45	5.45	0.05	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	10.03			10.04			0.07			0.04		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.97											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.402

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	41	66	88	59	26	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	87	0	30	56	0	44
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	74	129	122	29	89
Peak Hour Factor	0.8440	0.9500	0.8440	0.8440	0.9500	0.8440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	19	38	36	8	26
Total Analysis Volume [veh/h]	158	78	153	145	31	105
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	592	738	741	601	656
Degree of Utilization, x	0.27	0.11	0.40	0.05	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.07	0.35	1.95	0.16	0.57
95th-Percentile Queue Length [ft]	26.77	8.83	48.77	4.07	14.17
Approach Delay [s/veh]	10.05		11.09	9.18	
Approach LOS	B		B	A	
Intersection Delay [s/veh]	10.34				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	37.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇈			⇈⇐			⇈⇈⇈			⇈⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	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]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	69	197	24	62	234	26	3	37	46	53	69	131
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	285	0	275	122	0	0	0	0	0	0	92
Site-Generated Trips [veh/h]	22	44	0	0	30	0	0	15	15	0	22	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]	99	550	27	344	414	29	3	56	67	59	99	239
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]	26	145	7	91	109	8	1	15	18	16	26	63
Total Analysis Volume [veh/h]	104	579	28	362	436	31	3	59	71	62	104	252
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	23	0	31	38	0	9	27	0	9	27	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	33	20	46	0	17	17	4	21
g / C, Green / Cycle	0.07	0.36	0.22	0.51	0.00	0.19	0.19	0.04	0.23
(v / s)_i Volume / Saturation Flow Rate	0.06	0.32	0.20	0.25	0.00	0.03	0.04	0.03	0.21
s, saturation flow rate [veh/h]	1810	1885	1810	1878	1810	1900	1615	1810	1689
c, Capacity [veh/h]	134	681	403	957	9	368	313	80	394
d1, Uniform Delay [s]	40.92	27.09	33.97	14.39	44.64	30.19	30.60	42.55	33.52
k, delay calibration	0.11	0.50	0.16	0.50	0.11	0.11	0.11	0.11	0.18
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.10	16.32	10.07	1.78	21.78	0.20	0.36	14.40	12.08
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.89	0.90	0.49	0.34	0.16	0.23	0.77	0.90
d, Delay for Lane Group [s/veh]	50.02	43.41	44.04	16.17	66.42	30.39	30.96	56.96	45.60
Lane Group LOS	D	D	D	B	E	C	C	E	D
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.53	14.39	8.21	5.72	0.12	1.05	1.28	1.64	8.46
50th-Percentile Queue Length [ft/ln]	63.15	359.63	205.13	143.01	2.94	26.13	32.03	41.02	211.57
95th-Percentile Queue Length [veh/ln]	4.55	20.61	12.90	9.64	0.21	1.88	2.31	2.95	13.23
95th-Percentile Queue Length [ft/ln]	113.68	515.13	322.57	241.07	5.29	47.03	57.66	73.84	330.84

Movement, Approach, & Intersection Results

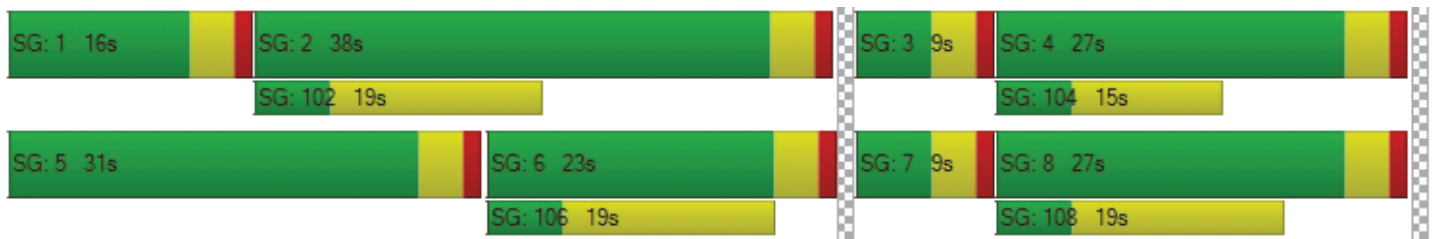
d_M, Delay for Movement [s/veh]	50.02	43.41	43.41	44.04	16.17	16.17	66.42	30.39	30.96	56.96	45.60	45.60
Movement LOS	D	D	D	D	B	B	E	C	C	E	D	D
d_A, Approach Delay [s/veh]	44.38			28.34			31.51			47.28		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	37.78											
Intersection LOS	D											
Intersection V/C	0.735											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.549	2.842	2.253	2.414
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	756	511	511
d_b, Bicycle Delay [s]	28.01	17.42	24.94	24.94
I_b,int, Bicycle LOS Score for Intersection	2.733	2.927	1.779	2.249
Bicycle LOS	B	C	A	B

Sequence




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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	79.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.299

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	284	33	21	253	211	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	277	139	0
Site-Generated Trips [veh/h]	0	0	0	22	15	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]	318	37	24	582	390	149
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]	84	10	6	153	103	39
Total Analysis Volume [veh/h]	335	39	25	613	411	157
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	490	442	613	513	513	559
Degree of Utilization, x	0.76	0.06	1.30	0.37	0.37	0.34

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	6.65	0.18	26.35	1.69	1.69	1.49
95th-Percentile Queue Length [ft]	166.22	4.48	658.80	42.18	42.18	37.22
Approach Delay [s/veh]	30.38	166.01		13.32		
Approach LOS	D	F		B		
Intersection Delay [s/veh]	79.01					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	404.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.658

Intersection Setup

Name	I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	252	7	83	0	290	305	240	236	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	258	0	97	0	293	119	619	137	0
Site-Generated Trips [veh/h]	0	0	0	0	37	0	0	22	0	41	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	540	45	190	0	640	461	929	416	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	142	12	50	0	168	121	244	109	0
Total Analysis Volume [veh/h]	0	0	0	568	47	200	0	674	485	978	438	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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	27	0	0	34	0	29	63	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		0.46	0.66	0.54	0.23
s, saturation flow rate [veh/h]		1762	1769	1810	1900
c, Capacity [veh/h]		355	590	600	1348
d1, Uniform Delay [s]		35.93	30.00	30.07	4.93
k, delay calibration		0.50	0.50	0.50	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		591.48	440.44	290.58	0.14
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		2.29	1.97	1.63	0.32
d, Delay for Lane Group [s/veh]		627.41	470.44	320.65	5.07
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		65.25	83.55	60.25	2.14
50th-Percentile Queue Length [ft/ln]		1631.22	2088.64	1506.28	53.62
95th-Percentile Queue Length [veh/ln]		102.50	132.12	93.24	3.86
95th-Percentile Queue Length [ft/ln]		2562.51	3302.93	2331.04	96.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	627.41	627.41	627.41	0.00	470.44	470.44	320.65	5.07	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			627.41				470.44		223.03		
Approach LOS	A			F				F		F		
d_I, Intersection Delay [s/veh]	404.84											
Intersection LOS	F											
Intersection V/C	1.658											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	511	667	1311
d_b, Bicycle Delay [s]	45.00	24.94	20.00	5.34
I_b,int, Bicycle LOS Score for Intersection	4.132	2.904	3.472	3.896
Bicycle LOS	D	C	C	D

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	429.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.625

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	123	1	154	0	0	0	178	359	0	0	329	667
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	97	0	258	0	0	0	256	290	0	0	658	634
Site-Generated Trips [veh/h]	0	0	65	0	0	0	0	22	0	0	56	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]	235	1	495	0	0	0	455	714	0	0	1082	1381
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	62	0	130	0	0	0	120	188	0	0	285	363
Total Analysis Volume [veh/h]	247	1	521	0	0	0	479	752	0	0	1139	1454
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	0	0	0	17	67	0	0	50	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	26	60	30	30
g / C, Green / Cycle	0.25	0.29	0.66	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.46	0.26	0.40	0.60	0.90
s, saturation flow rate [veh/h]	1673	1810	1900	1900	1615
c, Capacity [veh/h]	416	515	1259	634	539
d1, Uniform Delay [s]	33.82	31.31	8.47	29.99	29.99
k, delay calibration	0.50	0.30	0.15	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	391.88	17.72	0.62	365.16	770.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.85	0.93	0.60	1.80	2.70
d, Delay for Lane Group [s/veh]	425.70	49.03	9.09	395.15	800.05
Lane Group LOS	F	D	A	F	F
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	53.16	12.29	7.09	77.38	126.35
50th-Percentile Queue Length [ft/ln]	1329.12	307.27	177.33	1934.40	3158.71
95th-Percentile Queue Length [veh/ln]	83.64	18.04	11.46	120.80	202.21
95th-Percentile Queue Length [ft/ln]	2091.12	451.01	286.52	3020.08	5055.24

Movement, Approach, & Intersection Results

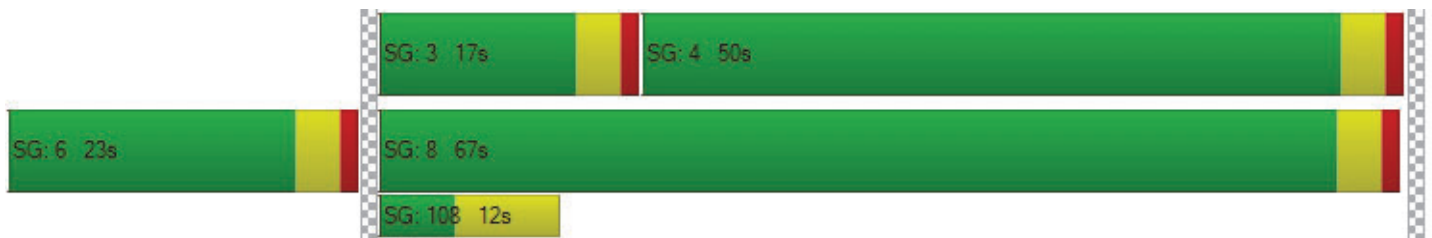
d_M, Delay for Movement [s/veh]	425.70	425.70	425.70	0.00	0.00	0.00	49.03	9.09	0.00	0.00	395.15	800.05
Movement LOS	F	F	F				D	A			F	F
d_A, Approach Delay [s/veh]	425.70			0.00			24.63			622.19		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	429.14											
Intersection LOS	F											
Intersection V/C	1.625											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.529	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	0	1400	1022
d_b, Bicycle Delay [s]	28.01	45.00	4.05	10.76
I_b,int, Bicycle LOS Score for Intersection	2.828	4.132	3.591	5.838
Bicycle LOS	C	D	D	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	44.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.886

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	119	240	139	290	672	58
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	360	1080	0
Site-Generated Trips [veh/h]	0	56	87	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]	133	325	243	685	1833	65
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]	35	86	64	180	482	17
Total Analysis Volume [veh/h]	140	342	256	721	1929	68
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	13	67	54	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	9	63	50	50
g / C, Green / Cycle	0.21	0.21	0.10	0.70	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.08	0.21	0.14	0.38	0.53	0.04
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	382	341	181	1330	2010	897
d1, Uniform Delay [s]	30.35	35.50	40.50	6.53	19.04	9.28
k, delay calibration	0.11	0.18	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]	0.59	30.24	193.70	1.59	12.60	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	1.00	1.41	0.54	0.96	0.08
d, Delay for Lane Group [s/veh]	30.94	65.74	234.20	8.12	31.65	9.44
Lane Group LOS	C	F	F	A	C	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.58	10.04	13.54	5.16	19.11	0.58
50th-Percentile Queue Length [ft/ln]	64.57	251.07	338.58	128.99	477.77	14.42
95th-Percentile Queue Length [veh/ln]	4.65	15.26	21.99	8.88	26.28	1.04
95th-Percentile Queue Length [ft/ln]	116.23	381.62	549.78	222.12	657.00	25.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.94	65.74	234.20	8.12	31.65	9.44
Movement LOS	C	F	F	A	C	A
d_A, Approach Delay [s/veh]	55.63		67.36		30.89	
Approach LOS	E		E		C	
d_I, Intersection Delay [s/veh]	44.65					
Intersection LOS	D					
Intersection V/C	0.886					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.247	3.320	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	1111
d_b, Bicycle Delay [s]	28.01	4.05	8.89
I_b,int, Bicycle LOS Score for Intersection	1.560	3.172	3.207
Bicycle LOS	A	C	C

Sequence





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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	200.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.162

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	57	194	61	28	246	183	91	238	66	70	459	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	15	349	100	46	33	11	189	0	1047	499	292
Site-Generated Trips [veh/h]	0	44	0	15	30	0	0	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	64	276	417	146	352	238	113	456	74	1125	1013	374
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]	17	73	110	38	93	63	30	120	19	296	267	98
Total Analysis Volume [veh/h]	67	291	439	154	371	251	119	480	78	1184	1066	394
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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	26	0	9	26	0	15	26	0	29	40	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	22	22	5	23	23	7	22	22	25	39	39
g / C, Green / Cycle	0.05	0.25	0.25	0.06	0.26	0.26	0.08	0.24	0.24	0.28	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.04	0.15	0.27	0.09	0.17	0.18	0.07	0.15	0.15	0.65	0.38	0.42
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1648	1810	1900	1809	1810	1900	1735
c, Capacity [veh/h]	87	472	401	101	487	422	151	457	435	503	826	754
d1, Uniform Delay [s]	42.36	30.00	33.81	42.50	30.17	30.21	40.47	30.56	30.58	32.50	23.35	24.83
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50	0.37	0.43
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.48	5.92	72.53	250.02	7.55	8.78	8.81	1.41	1.49	616.15	10.25	23.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.62	1.09	1.53	0.68	0.69	0.79	0.62	0.63	2.36	0.88	0.97
d, Delay for Lane Group [s/veh]	55.84	35.92	106.34	292.52	37.72	38.98	49.28	31.96	32.08	648.65	33.61	48.46
Lane Group LOS	E	D	F	F	D	D	D	C	C	F	C	D
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.75	6.09	16.35	9.14	7.17	6.40	2.83	5.35	5.13	96.43	15.39	18.81
50th-Percentile Queue Length [ft/ln]	43.71	152.25	408.72	228.49	179.25	159.96	70.87	133.77	128.26	2410.77	384.82	470.35
95th-Percentile Queue Length [veh/ln]	3.15	10.14	24.17	15.66	11.56	10.55	5.10	9.14	8.84	152.39	21.83	25.93
95th-Percentile Queue Length [ft/ln]	78.68	253.43	604.24	391.39	289.03	263.68	127.56	228.61	221.12	3809.75	545.68	648.19

Movement, Approach, & Intersection Results

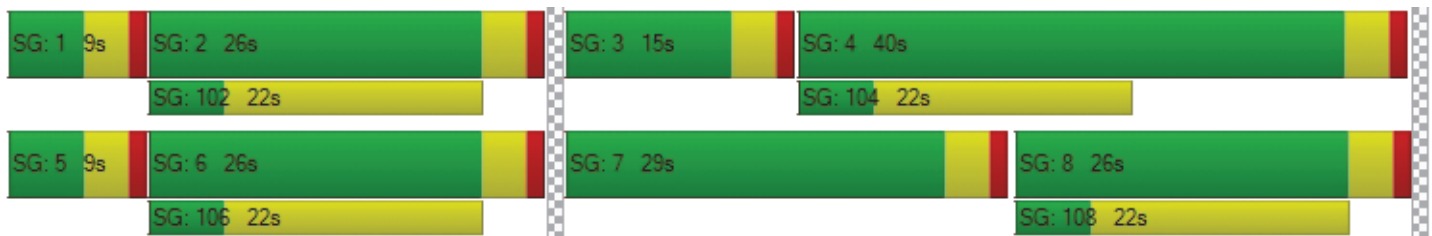
d_M, Delay for Movement [s/veh]	55.84	35.92	106.34	292.52	37.85	38.98	49.28	32.01	32.08	648.65	38.29	48.46
Movement LOS	E	D	F	F	D	D	D	C	C	F	D	D
d_A, Approach Delay [s/veh]	76.38			88.76			35.05			313.13		
Approach LOS	E			F			D			F		
d_I, Intersection Delay [s/veh]	200.53											
Intersection LOS	F											
Intersection V/C	1.162											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersection	2.933	2.712	2.904	3.147
Crosswalk LOS	C	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	489	800
d_b, Bicycle Delay [s]	25.69	25.69	25.69	16.20
l_b,int, Bicycle LOS Score for Intersection	2.217	2.200	2.118	3.741
Bicycle LOS	B	B	B	D

Sequence

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



Intersection Level Of Service Report
Intersection 101: Cherry Valley Blvd at West Project Dwy

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.575

Intersection Setup

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

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	208	0	0	536
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	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	101	0	0	251
Site-Generated Trips [veh/h]	17	0	503	57	9	152
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]	17	0	837	57	9	1003
Peak Hour Factor	0.9200	0.9200	0.9500	0.9200	0.9200	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	220	15	2	264
Total Analysis Volume [veh/h]	18	0	881	62	10	1056
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	20	0	30	0	40	70
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	7	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	C	C	L	C
C, Cycle Length [s]	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	75	1	80
g / C, Green / Cycle	0.02	0.83	0.01	0.89
(v / s)_i Volume / Saturation Flow Rate	0.01	0.51	0.01	0.56
s, saturation flow rate [veh/h]	1781	1849	1781	1870
c, Capacity [veh/h]	37	1538	25	1665
d1, Uniform Delay [s]	43.59	2.59	44.01	1.24
k, delay calibration	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.60	1.83	10.44	1.85
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	0.49	0.61	0.41	0.63
d, Delay for Lane Group [s/veh]	53.19	4.42	54.45	3.10
Lane Group LOS	D	A	D	A
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	3.26	0.29	0.86
50th-Percentile Queue Length [ft/ln]	12.28	81.50	7.26	21.43
95th-Percentile Queue Length [veh/ln]	0.88	5.87	0.52	1.54
95th-Percentile Queue Length [ft/ln]	22.11	146.70	13.07	38.58

Movement, Approach, & Intersection Results

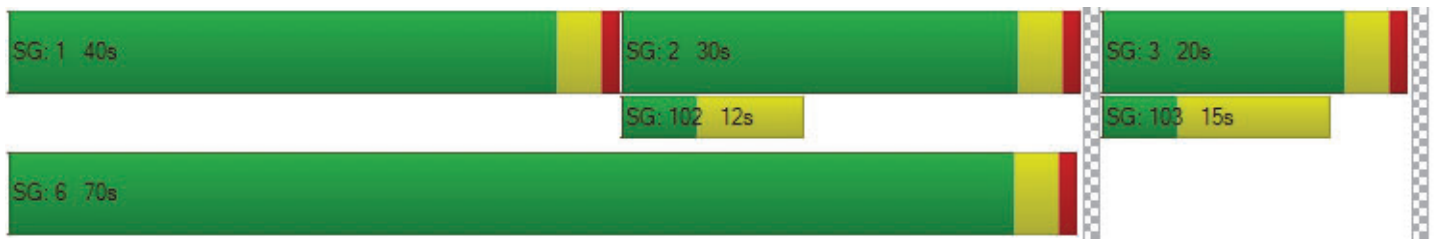
d_M, Delay for Movement [s/veh]	53.19	53.19	4.42	4.42	54.45	3.10
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	53.19		4.42		3.58	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	4.41					
Intersection LOS	A					
Intersection V/C	0.575					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.760	2.700	2.607
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	356	578	1467
d_b, Bicycle Delay [s]	30.42	22.76	3.20
I_b,int, Bicycle LOS Score for Intersection	1.589	3.116	3.319
Bicycle LOS	A	C	C

Sequence

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



Intersection Level Of Service Report
Intersection 102: Cherry Valley Blvd at Middle Project Dwy

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name	Cherry Valley Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	208	0	0	536
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	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	101	0	0	251
Site-Generated Trips [veh/h]	152	18	148	355	211	9
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]	152	18	482	355	211	860
Peak Hour Factor	0.9200	0.9200	0.9500	0.9200	0.9200	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	5	127	96	57	226
Total Analysis Volume [veh/h]	165	20	507	386	229	905
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	ProtPerm	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	26	0	55	0	9	64
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	17	0	10	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00
g_i, Effective Green Time [s]	10	10	63	63	72	72
g / C, Green / Cycle	0.12	0.12	0.70	0.70	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.14	0.24	0.31	0.48
s, saturation flow rate [veh/h]	1781	1589	3560	1589	736	1870
c, Capacity [veh/h]	206	184	2476	1105	669	1487
d1, Uniform Delay [s]	38.76	35.62	4.87	5.52	2.40	3.66
k, delay calibration	0.11	0.11	0.50	0.50	0.40	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.96	0.26	0.19	0.87	1.12	1.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.11	0.20	0.35	0.34	0.61
d, Delay for Lane Group [s/veh]	45.72	35.88	5.06	6.39	3.52	5.52
Lane Group LOS	D	D	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.90	0.40	1.12	2.09	0.79	4.67
50th-Percentile Queue Length [ft/ln]	97.42	10.07	28.07	52.32	19.81	116.63
95th-Percentile Queue Length [veh/ln]	7.01	0.72	2.02	3.77	1.43	8.21
95th-Percentile Queue Length [ft/ln]	175.35	18.12	50.52	94.18	35.65	205.18

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	45.72	35.88	5.06	6.39	3.52	5.52
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.66		5.63		5.12	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.63					
Intersection LOS	A					
Intersection V/C	0.577					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.436	3.010	2.625
Crosswalk LOS	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	1133	1333
d_b, Bicycle Delay [s]	25.69	8.45	5.00
I_b,int, Bicycle LOS Score for Intersection	1.560	2.296	3.431
Bicycle LOS	A	B	C

Sequence

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



Intersection Level Of Service Report
Intersection 103: Cherry Valley Blvd at East Project Dwy

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.190

Intersection Setup

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↷			⊥			⊥		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00			30.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	208	0	0	536	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	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	101	0	0	251	0
Site-Generated Trips [veh/h]	0	0	128	0	0	0	0	18	148	0	219	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	128	0	0	0	0	352	148	0	1070	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9500	0.9200	0.9500	0.9500	0.9500	0.9200	0.9200	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]	0	0	35	0	0	0	0	93	40	0	282	0
Total Analysis Volume [veh/h]	0	0	139	0	0	0	0	371	161	0	1126	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	11.06	0.00	0.00	12.67	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	17.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.06				12.67		0.00		0.00			
Approach LOS	B				B		A		A			
d_I, Intersection Delay [s/veh]	0.86											
Intersection LOS	B											

Beaumont Summit Station

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Scenario 8 OY 2027 CUM WP PM

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2/4/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	SB Right	3.382	631.2	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.052	377.3	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	3.290	1,417.6	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.621	77.2	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.252	92.2	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.084	49.9	E
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.682	34.5	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.015	12.8	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.006	13.3	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	NB Left	0.379	10.3	B
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	WB Right	0.875	67.2	E
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.709	134.4	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	2.243	1,057.6	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	2.065	592.9	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Thru	1.235	125.5	F
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	1.863	389.0	F
101	Cherry Valley Blvd at West Project Dwy	Signalized	HCM 6th Edition	WB Left	0.593	6.5	A
	Cherry Valley Blvd at Middle		HCM 6th				

102	Cherry Valley Blvd at Middle Project Dwy	Signalized	HCM 6th Edition	NB Left	0.461	11.4	B
103	Cherry Valley Blvd at East Project Dwy	Two-way stop	HCM 6th Edition	NB Right	0.260	14.6	B

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

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	631.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.382

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			└			┌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	288	4	542	0	393	125	24	270	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	202	0	481	0	376	373	125	481	0
Site-Generated Trips [veh/h]	0	0	0	114	0	0	0	15	0	98	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	639	4	1088	0	831	513	250	802	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	168	1	286	0	219	135	66	211	0
Total Analysis Volume [veh/h]	0	0	0	673	4	1145	0	875	540	263	844	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1822	1415	1107
Degree of Utilization, x		3.38	1.75	1.45

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		164.56	82.34	51.36
95th-Percentile Queue Length [ft]		4113.91	2058.38	1283.88
Approach Delay [s/veh]	0.00	1090.90	355.72	226.63
Approach LOS	A	F	F	F
Intersection Delay [s/veh]	631.18			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	377.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.052

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	181	4	22	0	0	0	304	378	0	0	119	255
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	481	0	202	0	0	0	373	202	0	0	125	60
Site-Generated Trips [veh/h]	0	0	64	0	0	0	0	129	0	0	117	168
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	684	4	291	0	0	0	713	754	0	0	375	514
Peak Hour Factor	0.9500	0.9500	0.9500	1.0000	1.0000	1.0000	0.9500	0.9500	1.0000	1.0000	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]	180	1	77	0	0	0	188	198	0	0	99	135
Total Analysis Volume [veh/h]	720	4	306	0	0	0	751	794	0	0	395	541
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1030		1545	936
Degree of Utilization, x	1.99		2.05	1.13

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	69.52		104.55	26.52
95th-Percentile Queue Length [ft]	1738.03		2613.71	662.96
Approach Delay [s/veh]	467.82	0.00	490.31	91.22
Approach LOS	F	A	F	F
Intersection Delay [s/veh]	377.32			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	1,417.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.290

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	74	49	41	382	307	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	66	113	290	185	0
Site-Generated Trips [veh/h]	0	0	0	193	285	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]	83	121	159	911	814	69
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]	22	32	42	240	214	18
Total Analysis Volume [veh/h]	87	127	167	959	857	73
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	3.29	0.37	0.22	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	1417.60	1291.97	11.24	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	22.94	22.94	0.86	0.86	0.00	0.00
95th-Percentile Queue Length [ft/ln]	573.49	573.49	21.46	21.46	0.00	0.00
d_A, Approach Delay [s/veh]	1343.05		1.67		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	127.44					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	77.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.621

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	39	1	416	38	0	312
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	9	0	212	15	0	156
Site-Generated Trips [veh/h]	15	0	171	19	0	139
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]	68	1	849	77	0	644
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]	18	0	223	20	0	169
Total Analysis Volume [veh/h]	72	1	894	81	0	678
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	0.62	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	77.21	57.23	0.00	0.00	10.03	0.00
Movement LOS	F	F	A	A	B	A
95th-Percentile Queue Length [veh/ln]	3.16	3.16	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	79.08	79.08	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	76.93		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	3.25					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	92.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.252

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	18	3	1	2	4	31	61	341	15	3	261	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	216	0	0	163	0
Site-Generated Trips [veh/h]	30	0	0	0	0	0	0	133	38	0	109	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]	50	3	1	2	4	35	68	731	55	3	564	2
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	1	0	1	1	9	18	192	14	1	148	1
Total Analysis Volume [veh/h]	53	3	1	2	4	37	72	769	58	3	594	2
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	503	549	899	703
Degree of Utilization, x	0.11	0.08	1.25	0.85

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.38	0.25	32.88	9.85
95th-Percentile Queue Length [ft]	9.51	6.34	822.04	246.25
Approach Delay [s/veh]	11.06	10.11	142.49	30.32
Approach LOS	B	B	F	D
Intersection Delay [s/veh]	92.19			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	49.9
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.084

Intersection Setup

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+r			+r		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	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	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	33	19	6	12	17	18	21	303	25	10	217	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	35	0	0	0	0	0	0	181	35	0	128	0
Site-Generated Trips [veh/h]	47	0	0	0	0	0	0	77	56	0	62	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]	119	21	7	13	19	20	24	597	119	11	433	9
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]	31	6	2	3	5	5	6	157	31	3	114	2
Total Analysis Volume [veh/h]	125	22	7	14	20	21	25	628	125	12	456	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	510	500	653	686	582	657
Degree of Utilization, x	0.30	0.11	1.08	0.18	0.80	0.01

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.26	0.37	19.12	0.66	7.93	0.04
95th-Percentile Queue Length [ft]	31.58	9.20	478.08	16.55	198.32	1.04
Approach Delay [s/veh]	13.09	11.08	72.59		29.15	
Approach LOS	B	B	F		D	
Intersection Delay [s/veh]	49.87					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	34.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	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	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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	132	254	26	16	228	54	60	87	174	15	59	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	128	86	0	0	147	0	0	0	181	0	0	0
Site-Generated Trips [veh/h]	32	0	0	0	0	15	19	19	39	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	370	29	18	402	75	86	116	415	17	81	11
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]	81	97	8	5	106	20	23	31	109	4	21	3
Total Analysis Volume [veh/h]	324	389	31	19	423	79	91	122	437	18	85	12
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	21	35	0	9	23	0	23	37	0	9	23	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	44	44	2	28	28	6	27	27	2	23
g / C, Green / Cycle	0.19	0.48	0.48	0.02	0.32	0.32	0.07	0.30	0.30	0.02	0.25
(v / s)_i Volume / Saturation Flow Rate	0.18	0.20	0.02	0.01	0.22	0.05	0.05	0.06	0.27	0.01	0.05
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1859
c, Capacity [veh/h]	342	918	780	39	600	510	122	564	479	37	465
d1, Uniform Delay [s]	36.06	15.11	12.25	43.54	27.09	22.15	41.23	23.78	30.51	43.59	26.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.22	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.49	1.43	0.10	9.12	6.81	0.65	8.83	0.19	12.76	9.26	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.95	0.42	0.04	0.49	0.70	0.15	0.75	0.22	0.91	0.48	0.21
d, Delay for Lane Group [s/veh]	49.55	16.55	12.35	52.66	33.91	22.79	50.06	23.97	43.27	52.85	26.91
Lane Group LOS	D	B	B	D	C	C	D	C	D	D	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.79	4.82	0.31	0.51	8.75	1.25	2.22	1.89	10.23	0.48	1.60
50th-Percentile Queue Length [ft/ln]	194.67	120.58	7.72	12.72	218.64	31.33	55.38	47.17	255.81	12.02	40.09
95th-Percentile Queue Length [veh/ln]	12.36	8.42	0.56	0.92	13.60	2.26	3.99	3.40	15.48	0.87	2.89
95th-Percentile Queue Length [ft/ln]	309.08	210.62	13.89	22.90	339.89	56.39	99.68	84.90	386.96	21.64	72.16

Movement, Approach, & Intersection Results

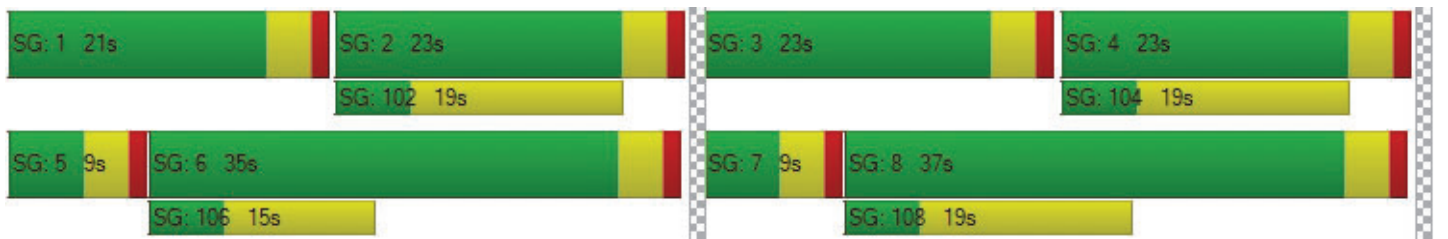
d_M, Delay for Movement [s/veh]	49.55	16.55	12.35	52.66	33.91	22.79	50.06	23.97	43.27	52.85	26.91	26.91
Movement LOS	D	B	B	D	C	C	D	C	D	D	C	C
d_A, Approach Delay [s/veh]	30.74			32.90			40.60			30.97		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	34.47											
Intersection LOS	C											
Intersection V/C	0.682											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.792	2.421	2.502	2.066
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	689	422	733	422
d_b, Bicycle Delay [s]	19.34	28.01	18.05	28.01
I_b,int, Bicycle LOS Score for Intersection	2.787	2.419	2.632	1.749
Bicycle LOS	C	B	B	A

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	3	2	5	18	5	18	24	95	1	3	108	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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	19	0	0	0	0	0	0	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	2	6	39	6	20	27	106	1	3	121	39
Peak Hour Factor	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430	0.7430
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	2	13	2	7	9	36	0	1	41	13
Total Analysis Volume [veh/h]	4	3	8	52	8	27	36	143	1	4	163	52
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	0.01	0.01	0.09	0.02	0.03	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.38	12.31	8.78	12.16	12.84	9.74	7.70	0.00	0.00	7.49	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.47	0.47	0.47	0.08	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.62	1.62	1.62	11.65	11.65	11.65	2.03	0.00	0.00	0.21	0.00	0.00
d_A, Approach Delay [s/veh]	10.18			11.47			1.54			0.14		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	2.91											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	1	1	9	13	2	7	4	113	2	5	125	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
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	38	0	0	0	19	0	0	15	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	1	1	10	53	2	8	4	146	2	6	155	51
Peak Hour Factor	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530	0.7530
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	3	18	1	3	1	48	1	2	51	17
Total Analysis Volume [veh/h]	1	1	13	70	3	11	5	194	3	8	206	68
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.13	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	11.19	12.67	8.89	12.46	13.31	10.06	7.78	0.00	0.00	7.61	0.00	0.00
Movement LOS	B	B	A	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.50	0.50	0.50	0.01	0.00	0.00	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.34	1.34	1.34	12.46	12.46	12.46	0.29	0.00	0.00	0.43	0.00	0.00
d_A, Approach Delay [s/veh]	9.29			12.18			0.19			0.22		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	2.16											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	63	27	67	72	71	129
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	62	0	38	75	0	30
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	30	113	156	80	174
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]	35	8	30	41	21	46
Total Analysis Volume [veh/h]	140	32	119	164	84	183
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	568	702	746	619	677
Degree of Utilization, x	0.25	0.05	0.38	0.14	0.27

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.96	0.14	1.78	0.47	1.09
95th-Percentile Queue Length [ft]	24.07	3.58	44.50	11.71	27.30
Approach Delay [s/veh]	10.53		10.75	9.81	
Approach LOS	B		B	A	
Intersection Delay [s/veh]	10.35				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	67.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.875

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇈			⇈⇐			⇈⇈⇈			⇈⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	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]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	50	280	74	113	290	13	27	71	93	60	43	106
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	214	0	181	328	0	0	0	0	0	0	309
Site-Generated Trips [veh/h]	15	32	0	0	39	0	0	19	19	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	560	83	308	692	15	30	99	123	67	63	428
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]	19	147	22	81	182	4	8	26	32	18	17	113
Total Analysis Volume [veh/h]	75	589	87	324	728	16	32	104	129	71	66	451
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	34	0	19	41	0	9	23	0	14	28	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	30	15	40	3	24	24	5	26
g / C, Green / Cycle	0.05	0.33	0.17	0.45	0.03	0.27	0.27	0.05	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.36	0.18	0.39	0.02	0.05	0.08	0.04	0.31
s, saturation flow rate [veh/h]	1810	1858	1810	1893	1810	1900	1615	1810	1647
c, Capacity [veh/h]	97	622	302	847	56	512	435	93	478
d1, Uniform Delay [s]	42.02	29.94	37.50	22.63	43.03	25.40	26.10	42.15	31.95
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.41
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.94	62.05	47.04	12.49	9.00	0.19	0.38	12.17	61.50
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	1.09	1.07	0.88	0.57	0.20	0.30	0.76	1.08
d, Delay for Lane Group [s/veh]	53.96	91.98	84.54	35.13	52.03	25.60	26.47	54.32	93.44
Lane Group LOS	D	F	F	D	D	C	C	D	F
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.91	23.16	10.11	15.24	0.82	1.67	2.14	1.82	17.84
50th-Percentile Queue Length [ft/ln]	47.82	578.90	252.69	380.92	20.50	41.69	53.38	45.51	446.05
95th-Percentile Queue Length [veh/ln]	3.44	32.79	15.84	21.64	1.48	3.00	3.84	3.28	25.99
95th-Percentile Queue Length [ft/ln]	86.08	819.77	396.10	540.96	36.90	75.03	96.08	81.92	649.72

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.96	91.98	91.98	84.54	35.13	35.13	52.03	25.60	26.47	54.32	93.44	93.44
Movement LOS	D	F	F	F	D	D	D	C	C	D	F	F
d_A, Approach Delay [s/veh]	88.19			50.12			29.22			88.72		
Approach LOS	F			D			C			F		
d_I, Intersection Delay [s/veh]	67.24											
Intersection LOS	E											
Intersection V/C	0.875											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersection	2.678	3.101	2.270	2.491
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	822	422	533
d_b, Bicycle Delay [s]	20.00	15.61	28.01	24.20
l_b,int, Bicycle LOS Score for Intersection	2.799	3.322	1.997	2.530
Bicycle LOS	C	C	A	B

Sequence




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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	134.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.709

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	200	42	50	311	255	245
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	357	454	0
Site-Generated Trips [veh/h]	0	0	0	15	19	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]	224	47	56	720	759	274
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]	59	12	15	189	200	72
Total Analysis Volume [veh/h]	236	49	59	758	799	288
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	453	417	758	536	536	584
Degree of Utilization, x	0.63	0.14	1.71	0.68	0.68	0.62

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	4.24	0.49	45.54	5.08	5.08	4.25
95th-Percentile Queue Length [ft]	105.94	12.23	1138.58	126.93	126.93	106.16
Approach Delay [s/veh]	23.50	324.04		21.00		
Approach LOS	C	F		C		
Intersection Delay [s/veh]	134.43					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	1,057.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.243

Intersection Setup

Name	I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	520	8	142	0	265	223	158	377	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	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.1200	1.1200	1.1200	1.0000	1.1200	1.1200	1.1200	1.1200	1.0000
In-Process Volume [veh/h]	0	0	0	853	0	324	0	328	122	579	436	0
Site-Generated Trips [veh/h]	0	0	0	0	34	0	0	15	0	56	19	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]	0	0	0	1435	43	483	0	640	372	812	877	0
Peak Hour Factor	1.0000	1.0000	1.0000	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500	0.9500	0.9500	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	378	11	127	0	168	98	214	231	0
Total Analysis Volume [veh/h]	0	0	0	1511	45	508	0	674	392	855	923	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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0	
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-	
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0	
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0	
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	
Split [s]	0	0	0	0	45	0	0	25	0	20	45	0	
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0	
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0	
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Rest In Walk					No			No			No		
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		1.17	0.60	0.47	0.49
s, saturation flow rate [veh/h]		1759	1784	1810	1900
c, Capacity [veh/h]		355	594	601	1348
d1, Uniform Delay [s]		35.93	30.01	30.06	7.38
k, delay calibration		0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2175.67	363.71	200.11	2.84
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		5.82	1.79	1.42	0.68
d, Delay for Lane Group [s/veh]		2211.60	393.71	230.17	10.22
Lane Group LOS		F	F	F	B
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		221.17	71.53	45.19	7.66
50th-Percentile Queue Length [ft/ln]		5529.15	1788.33	1129.65	191.58
95th-Percentile Queue Length [veh/ln]		333.52	112.15	68.34	12.20
95th-Percentile Queue Length [ft/ln]		8337.95	2803.83	1708.43	305.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	2211.60	2211.60	2211.60	0.00	393.71	393.71	230.17	10.22	0.00
Movement LOS				F	F	F		F	F	F	B	
d_A, Approach Delay [s/veh]	0.00			2211.60			393.71			115.99		
Approach LOS	A			F			F			F		
d_I, Intersection Delay [s/veh]	1057.60											
Intersection LOS	F											
Intersection V/C	2.243											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	911	467	911
d_b, Bicycle Delay [s]	45.00	13.34	26.45	13.34
I_b,int, Bicycle LOS Score for Intersection	4.132	4.965	3.319	4.493
Bicycle LOS	D	E	C	E

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	592.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.065

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy					
Approach	Northbound						Southbound			Eastbound			Westbound		
Lane Configuration	+									↶			↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00			
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	0	0	1			
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00			
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0			
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Speed [mph]	65.00			30.00			30.00			30.00					
Grade [%]	0.00			0.00			0.00			0.00					
Curb Present	No						No			No					
Crosswalk	Yes			No			No			No					

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	241	7	246	0	0	0	116	668	0	0	294	333
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.0000	1.0000	1.0000	1.1200	1.1200	1.0000	1.0000	1.1200	1.1200
In-Process Volume [veh/h]	324	0	853	0	0	0	213	950	0	0	691	590
Site-Generated Trips [veh/h]	0	0	47	0	0	0	0	15	0	0	75	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]	594	8	1176	0	0	0	343	1713	0	0	1095	963
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	1.0000	1.0000	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]	156	2	309	0	0	0	90	451	0	0	288	253
Total Analysis Volume [veh/h]	625	8	1238	0	0	0	361	1803	0	0	1153	1014
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 in		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing mi		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	49	0	0	0	0	12	41	0	0	29	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	20	54	30	30
g / C, Green / Cycle	0.31	0.22	0.60	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	1.12	0.20	0.95	0.61	0.63
s, saturation flow rate [veh/h]	1676	1810	1900	1900	1615
c, Capacity [veh/h]	523	401	1139	633	538
d1, Uniform Delay [s]	30.97	34.06	18.03	30.00	30.00
k, delay calibration	0.50	0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1165.71	10.28	266.74	375.60	404.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	3.58	0.90	1.58	1.82	1.88
d, Delay for Lane Group [s/veh]	1196.68	44.34	284.77	405.60	434.79
Lane Group LOS	F	D	F	F	F
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	178.92	8.61	104.57	79.15	71.65
50th-Percentile Queue Length [ft/ln]	4473.05	215.20	2614.16	1978.87	1791.14
95th-Percentile Queue Length [veh/ln]	282.58	13.42	162.45	123.76	113.46
95th-Percentile Queue Length [ft/ln]	7064.59	335.50	4061.21	3093.88	2836.57

Movement, Approach, & Intersection Results

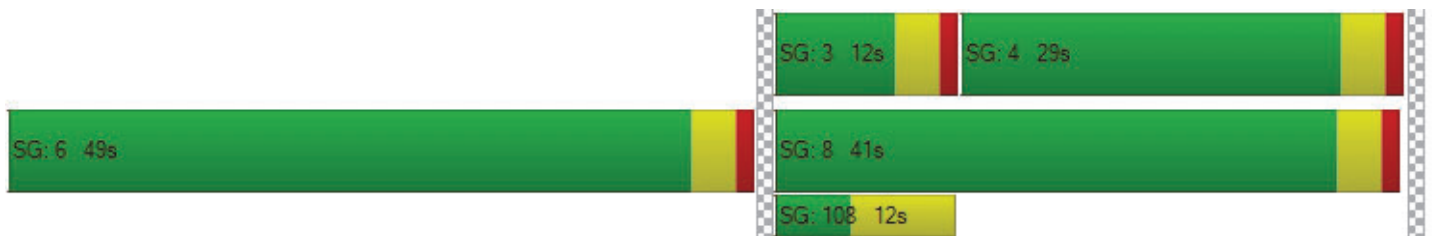
d_M, Delay for Movement [s/veh]	1196.68	1196.68	1196.68	0.00	0.00	0.00	44.34	284.77	0.00	0.00	405.60	434.79
Movement LOS	F	F	F				D	F			F	F
d_A, Approach Delay [s/veh]	1196.68			0.00			244.66			419.26		
Approach LOS	F			A			F			F		
d_I, Intersection Delay [s/veh]	592.87											
Intersection LOS	F											
Intersection V/C	2.065											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	3.693	0.000	0.000	0.000
Crosswalk LOS	D	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	0	822	556
d_b, Bicycle Delay [s]	11.25	45.00	15.61	23.47
I_b,int, Bicycle LOS Score for Intersection	4.647	4.132	5.130	5.135
Bicycle LOS	E	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	125.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.235

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	100	141	193	662	457	133
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	1214	712	0
Site-Generated Trips [veh/h]	0	75	62	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]	112	233	278	1955	1224	149
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]	29	61	73	514	322	39
Total Analysis Volume [veh/h]	118	245	293	2058	1288	157
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	37	67	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	17	66	46	46
g / C, Green / Cycle	0.17	0.17	0.19	0.74	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.16	1.08	0.36	0.10
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	315	281	338	1400	1829	817
d1, Uniform Delay [s]	32.83	36.17	35.51	11.84	17.08	12.18
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]	0.74	8.17	6.73	215.40	2.30	0.52
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	0.37	0.87	0.87	1.47	0.70	0.19
d, Delay for Lane Group [s/veh]	33.56	44.34	42.24	227.24	19.38	12.71
Lane Group LOS	C	D	D	F	B	B
Critical Lane Group	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.28	5.70	6.50	99.79	9.36	1.65
50th-Percentile Queue Length [ft/ln]	56.95	142.58	162.43	2494.73	234.11	41.14
95th-Percentile Queue Length [veh/ln]	4.10	9.62	10.68	153.32	14.38	2.96
95th-Percentile Queue Length [ft/ln]	102.52	240.49	266.94	3832.90	359.58	74.05

Movement, Approach, & Intersection Results

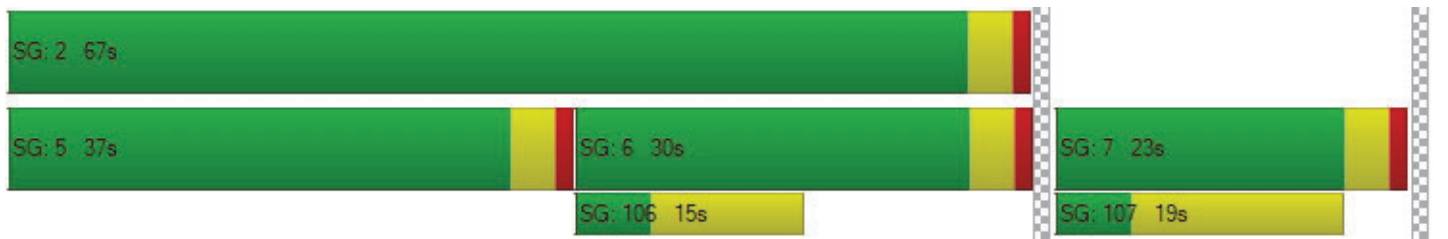
d_M, Delay for Movement [s/veh]	33.56	44.34	42.24	227.24	19.38	12.71
Movement LOS	C	D	D	F	B	B
d_A, Approach Delay [s/veh]	40.84		204.19		18.65	
Approach LOS	D		F		B	
d_I, Intersection Delay [s/veh]	125.47					
Intersection LOS	F					
Intersection V/C	1.235					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.250	3.553	0.000
Crosswalk LOS	B	D	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	578
d_b, Bicycle Delay [s]	28.01	4.05	22.76
I_b,int, Bicycle LOS Score for Intersection	1.560	5.439	2.752
Bicycle LOS	A	F	C

Sequence

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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	389.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.863

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
	85	338	59	89	229	171	227	391	77	93	382	85
Base Volume Input [veh/h]	85	338	59	89	229	171	227	391	77	93	382	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	51	1177	336	30	22	37	633	0	690	418	204
Site-Generated Trips [veh/h]	0	32	0	19	39	0	0	0	0	0	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	462	1243	455	325	214	291	1071	86	794	846	314
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]	25	122	327	120	86	56	77	282	23	209	223	83
Total Analysis Volume [veh/h]	100	486	1308	479	342	225	306	1127	91	836	891	331
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 in	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	31	0	13	30	0	15	26	0	20	31	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	27	27	9	30	30	11	22	22	16	27	27
g / C, Green / Cycle	0.07	0.30	0.30	0.10	0.33	0.33	0.12	0.24	0.24	0.18	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.06	0.13	0.81	0.26	0.16	0.16	0.17	0.32	0.33	0.46	0.32	0.35
s, saturation flow rate [veh/h]	1810	3618	1615	1810	1900	1651	1810	1900	1851	1810	1900	1734
c, Capacity [veh/h]	132	1085	485	181	622	540	221	464	452	322	570	520
d1, Uniform Delay [s]	40.95	25.47	31.50	40.50	24.24	24.24	39.50	34.00	34.00	37.00	31.50	31.50
k, delay calibration	0.11	0.50	0.50	0.30	0.50	0.50	0.11	0.43	0.44	0.50	0.43	0.49
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.63	1.34	770.72	750.66	2.72	3.13	178.74	157.89	163.08	728.42	55.64	97.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.76	0.45	2.70	2.65	0.49	0.49	1.38	1.32	1.33	2.60	1.07	1.17
d, Delay for Lane Group [s/veh]	49.58	26.81	802.22	791.16	26.96	27.37	218.24	191.89	197.08	765.42	87.14	128.55
Lane Group LOS	D	C	F	F	C	C	F	F	F	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.42	4.18	113.53	41.58	5.33	4.69	15.61	29.79	29.67	71.92	20.53	24.72
50th-Percentile Queue Length [ft/ln]	60.47	104.43	2838.20	1039.61	133.14	117.34	390.29	744.72	741.74	1797.91	513.18	618.01
95th-Percentile Queue Length [veh/ln]	4.35	7.52	180.83	64.81	9.11	8.25	24.92	44.76	44.74	112.18	29.21	36.18
95th-Percentile Queue Length [ft/ln]	108.85	187.97	4520.87	1620.35	227.75	206.17	622.88	1118.91	1118.49	2804.51	730.16	904.51

Movement, Approach, & Intersection Results

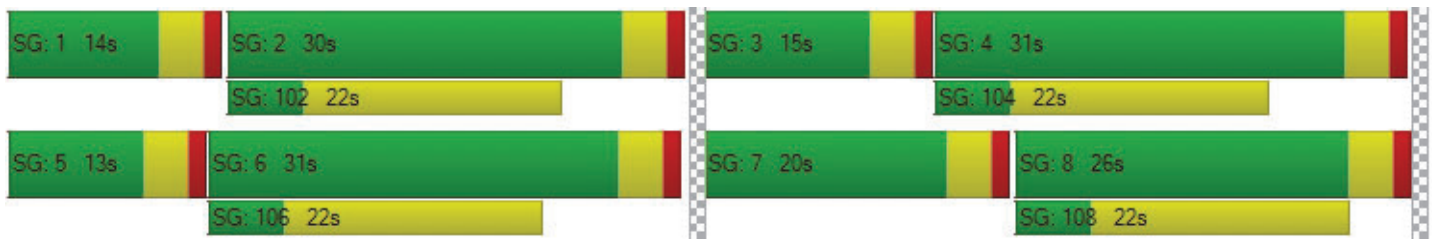
d_M, Delay for Movement [s/veh]	49.58	26.81	802.22	791.16	27.01	27.37	218.24	194.25	197.08	765.42	100.16	128.55
Movement LOS	D	C	F	F	C	C	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	563.51			377.02			199.23			374.97		
Approach LOS	F			F			F			F		
d_I, Intersection Delay [s/veh]	388.99											
Intersection LOS	F											
Intersection V/C	1.863											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.140	2.865	3.103	3.432
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	578	489	600
d_b, Bicycle Delay [s]	22.05	22.76	25.69	22.05
I_b,int, Bicycle LOS Score for Intersection	3.122	2.423	2.817	3.257
Bicycle LOS	C	B	C	C

Sequence




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



Intersection Level Of Service Report
Intersection 101: Cherry Valley Blvd at West Project Dwy

Control Type:	Signalized	Delay (sec / veh):	6.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.593

Intersection Setup

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

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	456	0	0	369
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	290	0	0	185
Site-Generated Trips [veh/h]	66	0	167	26	4	219
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]	66	0	968	26	4	817
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]	17	0	255	7	1	215
Total Analysis Volume [veh/h]	69	0	1019	27	4	860
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	19	0	62	0	9	71
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	7	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	C	C	L	C
C, Cycle Length [s]	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	73	0	77
g / C, Green / Cycle	0.05	0.81	0.01	0.86
(v / s)_i Volume / Saturation Flow Rate	0.04	0.55	0.00	0.45
s, saturation flow rate [veh/h]	1810	1891	1810	1900
c, Capacity [veh/h]	91	1533	10	1635
d1, Uniform Delay [s]	42.17	3.62	44.59	1.60
k, delay calibration	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.81	2.48	22.30	1.21
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	0.75	0.68	0.39	0.53
d, Delay for Lane Group [s/veh]	53.99	6.10	66.89	2.81
Lane Group LOS	D	A	E	A
Critical Lane Group	Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.80	5.36	0.15	1.48
50th-Percentile Queue Length [ft/ln]	44.91	134.06	3.79	37.05
95th-Percentile Queue Length [veh/ln]	3.23	9.16	0.27	2.67
95th-Percentile Queue Length [ft/ln]	80.84	229.01	6.83	66.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.99	53.99	6.10	6.10	66.89	2.81
Movement LOS	D	D	A	A	E	A
d_A, Approach Delay [s/veh]	53.99		6.10		3.11	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	6.46					
Intersection LOS	A					
Intersection V/C	0.593					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.765	2.679	2.592
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	1289	1489
d_b, Bicycle Delay [s]	31.25	5.69	2.94
I_b,int, Bicycle LOS Score for Intersection	1.673	3.286	2.985
Bicycle LOS	A	C	C

Sequence

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



Intersection Level Of Service Report
Intersection 102: Cherry Valley Blvd at Middle Project Dwy

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.461

Intersection Setup

Name	Cherry Valley Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
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	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	456	0	0	369
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	290	0	0	185
Site-Generated Trips [veh/h]	219	66	125	42	150	4
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]	219	66	926	42	150	602
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]	58	17	244	11	39	158
Total Analysis Volume [veh/h]	231	69	975	44	158	634
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 in	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	ProtPerm	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	26	0	55	0	9	64
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	17	0	10	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00
g_i, Effective Green Time [s]	14	14	59	59	68	68
g / C, Green / Cycle	0.15	0.15	0.66	0.66	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.13	0.04	0.27	0.03	0.23	0.33
s, saturation flow rate [veh/h]	1810	1615	3618	1615	688	1900
c, Capacity [veh/h]	277	247	2384	1064	565	1440
d1, Uniform Delay [s]	37.00	33.72	7.16	5.38	4.05	3.95
k, delay calibration	0.11	0.11	0.50	0.50	0.22	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.49	0.61	0.52	0.07	0.55	0.98
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	0.83	0.28	0.41	0.04	0.28	0.44
d, Delay for Lane Group [s/veh]	43.49	34.33	7.68	5.45	4.60	4.93
Lane Group LOS	D	C	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.35	1.36	3.16	0.22	0.63	3.38
50th-Percentile Queue Length [ft/ln]	133.69	34.04	79.10	5.61	15.76	84.62
95th-Percentile Queue Length [veh/ln]	9.14	2.45	5.70	0.40	1.14	6.09
95th-Percentile Queue Length [ft/ln]	228.50	61.26	142.39	10.09	28.38	152.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.49	34.33	7.68	5.45	4.60	4.93
Movement LOS	D	C	A	A	A	A
d_A, Approach Delay [s/veh]	41.38		7.58		4.87	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	11.37					
Intersection LOS	B					
Intersection V/C	0.461					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.258	2.975	2.659
Crosswalk LOS	B	C	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	1133	1333
d_b, Bicycle Delay [s]	25.69	8.45	5.00
I_b,int, Bicycle LOS Score for Intersection	1.560	2.400	2.866
Bicycle LOS	A	B	C

Sequence

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



Intersection Level Of Service Report
Intersection 103: Cherry Valley Blvd at East Project Dwy

Control Type:	Two-way stop	Delay (sec / veh):	14.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.260

Intersection Setup

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	↶			↷			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00			30.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	0	0	0	0	0	0	0	456	0	0	369	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200	1.1200
In-Process Volume [veh/h]	0	0	0	0	0	0	0	290	0	0	185	0
Site-Generated Trips [veh/h]	0	0	124	0	0	0	0	66	125	0	154	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	124	0	0	0	0	867	125	0	752	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]	0	0	33	0	0	0	0	228	33	0	198	0
Total Analysis Volume [veh/h]	0	0	131	0	0	0	0	913	132	0	792	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.26	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	14.62	0.00	0.00	10.91	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	25.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.62				10.91		0.00		0.00			
Approach LOS	B				B		A		A			
d_I, Intersection Delay [s/veh]	0.97											
Intersection LOS	B											

Beaumont Summit Station

Vistro File: \\...\\Cherry Valley Base AM.vistro

Scenario 5 HY AM

Report File: \\...\\7 HY AM.pdf

1/31/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.029	319.9	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Left	1.982	275.3	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	0.682	172.0	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.908	84.0	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	1.094	53.4	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	0.961	32.2	D
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	EB Left	0.509	29.4	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Left	0.020	13.3	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	NB Thru	0.017	10.7	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.278	8.8	A
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	EB Left	0.719	36.8	D
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.429	92.9	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	1.631	376.6	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Right	1.583	409.9	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Left	0.799	25.6	C
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Left	1.172	203.6	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For

all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	319.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.029

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	221	0	503	0	1080	535	203	317	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	221	0	503	0	1080	535	203	317	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	58	0	132	0	284	141	53	83	0
Total Analysis Volume [veh/h]	0	0	0	233	0	529	0	1137	563	214	334	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		762	1700	756
Degree of Utilization, x		1.33	2.03	0.72

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		32.62	113.40	6.35
95th-Percentile Queue Length [ft]		815.39	2835.04	158.82
Approach Delay [s/veh]	0.00	181.61	478.77	19.25
Approach LOS	A	F	F	C
Intersection Delay [s/veh]	319.88			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	275.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.982

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Base Volume Input [veh/h]	252	5	224	0	0	0	1074	327	0	0	238
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	252	5	224	0	0	0	1074	327	0	0	238	733
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	66	1	59	0	0	0	283	86	0	0	63	193
Total Analysis Volume [veh/h]	265	5	236	0	0	0	1131	344	0	0	251	772
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	528		1475	1023
Degree of Utilization, x	0.96		1.98	1.20

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.43		97.05	33.14
95th-Percentile Queue Length [ft]	310.79		2426.13	828.59
Approach Delay [s/veh]	55.18	0.00	459.25	119.03
Approach LOS	F	A	F	F
Intersection Delay [s/veh]	275.33			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	172.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	T		↑		↑	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	53	129	123	451	786	173
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	53	129	123	451	786	173
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]	14	34	32	119	207	46
Total Analysis Volume [veh/h]	56	136	129	475	827	182
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	0.68	0.41	0.19	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	171.97	138.95	11.36	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	9.56	9.56	0.68	0.68	0.00	0.00
95th-Percentile Queue Length [ft/ln]	238.89	238.89	16.94	16.94	0.00	0.00
d_A, Approach Delay [s/veh]	148.58		2.43		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	16.62					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	84.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.908

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	T		T		T	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	194	0	304	42	0	757
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	194	0	304	42	0	757
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]	51	0	80	11	0	199
Total Analysis Volume [veh/h]	204	0	320	44	0	797
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	0.91	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	83.97	73.04	0.00	0.00	7.99	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	7.56	7.56	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	188.88	188.88	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	83.97		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	12.55					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	53.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.094

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	65	2	4	0	5	110	31	366	13	3	707	4
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	2	4	0	5	110	31	366	13	3	707	4
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	17	1	1	0	1	29	8	96	3	1	186	1
Total Analysis Volume [veh/h]	68	2	4	0	5	116	33	385	14	3	744	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	502	571	653	751
Degree of Utilization, x	0.15	0.21	0.66	1.09

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.51	0.80	4.98	21.28
95th-Percentile Queue Length [ft]	12.84	19.90	124.55	532.09
Approach Delay [s/veh]	11.41	11.00	18.67	84.36
Approach LOS	B	B	C	F
Intersection Delay [s/veh]	53.41			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	32.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.961

Intersection Setup

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach												
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	43	20	4	6	27	58	26	210	72	3	600	1
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	43	20	4	6	27	58	26	210	72	3	600	1
Peak Hour Factor	0.940	0.940	0.940	0.950	0.940	0.950	0.950	0.950	0.940	0.940	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	11	5	1	2	7	15	7	55	19	1	158	0
Total Analysis Volume [veh/h]	46	21	4	6	29	61	27	221	77	3	632	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	535	582	618	710	662	760
Degree of Utilization, x	0.13	0.16	0.40	0.11	0.96	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.45	0.59	1.93	0.36	13.89	0.00
95th-Percentile Queue Length [ft]	11.37	14.67	48.35	9.08	347.16	0.10
Approach Delay [s/veh]	10.74	10.40	11.44		48.52	
Approach LOS	B	B	B		E	
Intersection Delay [s/veh]	32.22					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	278	353	33	13	295	56	46	118	161	38	268	13
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	278	353	33	13	295	56	46	118	161	38	268	13
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	73	93	9	3	78	15	12	31	42	10	71	3
Total Analysis Volume [veh/h]	293	372	35	14	311	59	48	124	169	40	282	14
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	40	0	12	23	0	11	27	0	11	27	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	53	53	2	38	38	4	17	17	3	16
g / C, Green / Cycle	0.18	0.59	0.59	0.02	0.42	0.42	0.04	0.18	0.18	0.04	0.18
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.02	0.01	0.16	0.04	0.03	0.07	0.10	0.02	0.16
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1884
c, Capacity [veh/h]	335	1111	944	32	792	674	71	350	298	65	340
d1, Uniform Delay [s]	35.66	9.65	7.94	43.77	18.28	15.87	42.65	32.03	33.44	42.78	35.84
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.20	0.81	0.07	9.33	1.46	0.26	10.46	0.61	1.70	9.21	6.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.33	0.04	0.44	0.39	0.09	0.67	0.35	0.57	0.62	0.87
d, Delay for Lane Group [s/veh]	42.85	10.47	8.01	53.10	19.74	16.13	53.11	32.64	35.14	52.00	42.67
Lane Group LOS	D	B	A	D	B	B	D	C	D	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.47	3.29	0.25	0.39	4.58	0.75	1.23	2.32	3.36	1.02	6.67
50th-Percentile Queue Length [ft/ln]	161.7	82.20	6.35	9.63	114.4	18.72	30.68	58.05	84.02	25.39	166.71
95th-Percentile Queue Length [veh/ln]	10.64	5.92	0.46	0.69	8.09	1.35	2.21	4.18	6.05	1.83	10.90
95th-Percentile Queue Length [ft/ln]	265.9	147.9	11.44	17.33	202.1	33.69	55.23	104.5	151.2	45.70	272.59

Movement, Approach, & Intersection Results

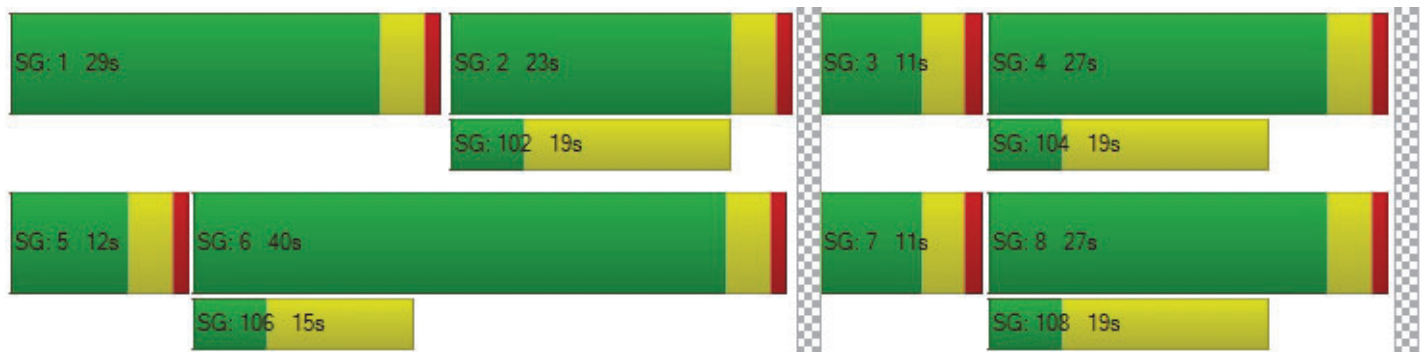
d_M, Delay for Movement [s/veh]	42.85	10.47	8.01	53.10	19.74	16.13	53.11	32.64	35.14	52.00	42.67	42.67
Movement LOS	D	B	A	D	B	B	D	C	D	D	D	D
d_A, Approach Delay [s/veh]	23.90			20.40			36.76			43.78		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	29.42											
Intersection LOS	C											
Intersection V/C	0.509											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
l_p,int, Pedestrian LOS Score for Intersection	2.628	2.365	2.449	2.162
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	422	511	511
d_b, Bicycle Delay [s]	16.20	28.01	24.94	24.94
l_b,int, Bicycle LOS Score for Intersection	2.715	2.193	2.122	2.114
Bicycle LOS	B	B	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.020

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	135	27	9	24	9	66	73	0	12	54	6
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	135	27	9	24	9	66	73	0	12	54	6
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	36	7	2	6	2	17	19	0	3	14	2
Total Analysis Volume [veh/h]	0	142	28	9	25	9	69	77	0	13	57	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	0.00	0.24	0.03	0.02	0.04	0.01	0.04	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	13.16	13.34	10.63	13.35	11.64	8.91	7.43	0.00	0.00	7.37	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.10	1.10	1.10	0.23	0.23	0.23	0.14	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	27.47	27.47	27.47	5.74	5.74	5.74	3.49	0.00	0.00	0.64	0.00	0.00
d_A, Approach Delay [s/veh]	12.89			11.42			3.51			1.26		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	7.57											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.017

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	10	4	17	0	8	5	119	0	1	71	49
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	10	4	17	0	8	5	119	0	1	71	49
Peak Hour Factor	0.950	0.950	0.959	0.959	0.950	0.950	0.950	0.959	0.950	0.959	0.959	0.959
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	3	1	4	0	2	1	31	0	0	19	13
Total Analysis Volume [veh/h]	0	11	4	18	0	8	5	124	0	1	74	51
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.81	10.69	8.72	9.90	10.55	8.76	7.45	0.00	0.00	7.44	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.10	0.10	0.10	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.61	1.61	1.61	2.46	2.46	2.46	0.26	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	10.17			9.55			0.29			0.06		
Approach LOS	B			A			A			A		
d_I, Intersection Delay [s/veh]	1.51											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.278

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	46	74	119	66	29	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	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]	46	74	119	66	29	71
Peak Hour Factor	0.8440	0.9500	0.8440	0.8440	0.9500	0.8440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	19	35	20	8	21
Total Analysis Volume [veh/h]	55	78	141	78	31	84
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	622	785	788	651	716
Degree of Utilization, x	0.09	0.10	0.28	0.05	0.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.29	0.33	1.14	0.15	0.40
95th-Percentile Queue Length [ft]	7.25	8.25	28.44	3.75	9.93
Approach Delay [s/veh]	8.32		9.32	8.43	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.82				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	36.8
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	77	506	28	344	384	35	4	47	55	80	103	247
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	77	506	28	344	384	35	4	47	55	80	103	247
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	133	7	91	101	9	1	12	14	21	27	65
Total Analysis Volume [veh/h]	81	533	29	362	404	37	4	49	58	84	108	260
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	23	0	28	32	0	9	23	0	16	30	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	32	20	46	1	17	17	5	22
g / C, Green / Cycle	0.06	0.35	0.22	0.52	0.01	0.19	0.19	0.06	0.24
(v / s)_i Volume / Saturation Flow Rate	0.04	0.30	0.20	0.24	0.00	0.03	0.04	0.05	0.22
s, saturation flow rate [veh/h]	1810	1883	1810	1872	1810	1900	1615	1810	1689
c, Capacity [veh/h]	108	665	401	964	11	354	301	111	408
d1, Uniform Delay [s]	41.66	26.82	34.10	13.84	44.55	30.58	30.90	41.60	33.11
k, delay calibration	0.11	0.50	0.16	0.50	0.11	0.11	0.11	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.95	12.49	10.62	1.56	19.00	0.18	0.31	10.17	12.20
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.84	0.90	0.46	0.36	0.14	0.19	0.76	0.90
d, Delay for Lane Group [s/veh]	51.60	39.31	44.71	15.40	63.55	30.76	31.21	51.77	45.31
Lane Group LOS	D	D	D	B	E	C	C	D	D
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.01	12.57	8.27	5.21	0.14	0.87	1.05	2.09	8.73
50th-Percentile Queue Length [ft/ln]	50.25	314.36	206.86	130.18	3.61	21.81	26.22	52.18	218.37
95th-Percentile Queue Length [veh/ln]	3.62	18.39	12.99	8.95	0.26	1.57	1.89	3.76	13.58
95th-Percentile Queue Length [ft/ln]	90.46	459.74	324.79	223.74	6.49	39.26	47.19	93.92	339.54

Movement, Approach, & Intersection Results

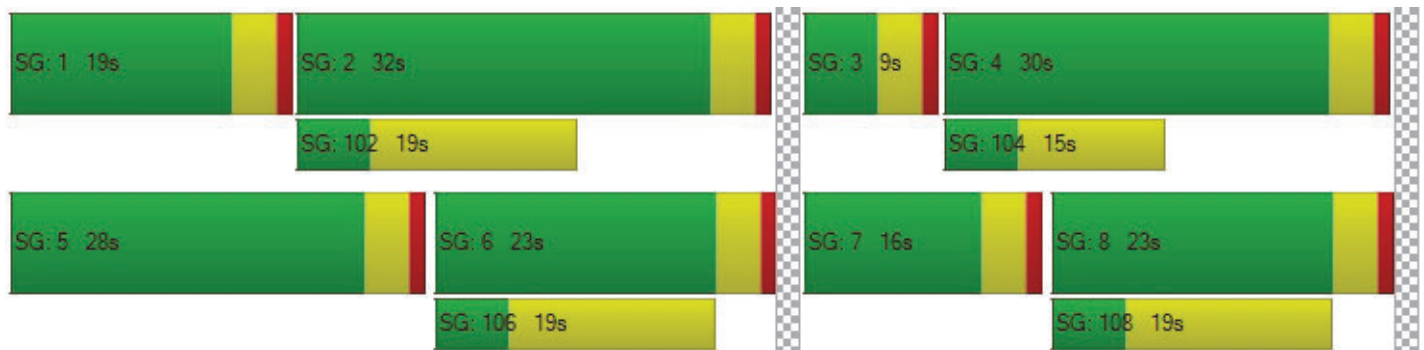
d_M, Delay for Movement [s/veh]	51.60	39.31	39.31	44.71	15.40	15.40	63.55	30.76	31.21	51.77	45.31	45.31
Movement LOS	D	D	D	D	B	B	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	40.86			28.62			32.18			46.51		
Approach LOS	D			C			C			D		
d_I, Intersection Delay [s/veh]	36.76											
Intersection LOS	D											
Intersection V/C	0.719											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.519	2.808	2.242	2.422
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	622	422	578
d_b, Bicycle Delay [s]	28.01	21.36	28.01	22.76
I_b,int, Bicycle LOS Score for Intersection	2.621	2.885	1.743	2.305
Bicycle LOS	B	C	A	B

Sequence




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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	92.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.429

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	318	105	53	560	625	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	318	105	53	560	625	178
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]	84	28	14	147	164	47
Total Analysis Volume [veh/h]	335	111	56	589	658	187
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	466	389	589	476	476	508
Degree of Utilization, x	0.96	0.14	1.43	0.59	0.59	0.55

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.78	0.50	29.57	3.76	3.76	3.34
95th-Percentile Queue Length [ft]	294.45	12.48	739.29	94.04	94.04	83.57
Approach Delay [s/veh]	59.88	211.35		19.84		
Approach LOS	F	F		C		
Intersection Delay [s/veh]	92.87					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	376.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.631

Intersection Setup

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	540	8	236	0	618	461	888	589	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	0	0	0	540	8	236	0	618	461	888	589	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	142	2	62	0	163	121	234	155	0
Total Analysis Volume [veh/h]	0	0	0	568	8	248	0	651	485	935	620	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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	27	0	0	34	0	29	63	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		0.47	0.64	0.52	0.33
s, saturation flow rate [veh/h]		1747	1767	1810	1900
c, Capacity [veh/h]		352	589	600	1348
d1, Uniform Delay [s]		35.93	30.00	30.07	5.64
k, delay calibration		0.50	0.50	0.50	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		611.69	424.22	259.01	0.25
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		2.34	1.93	1.56	0.46
d, Delay for Lane Group [s/veh]		647.62	454.22	289.08	5.88
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		66.68	80.78	54.98	3.48
50th-Percentile Queue Length [ft/ln]		1666.93	2019.41	1374.43	86.90
95th-Percentile Queue Length [veh/ln]		104.77	127.57	84.50	6.26
95th-Percentile Queue Length [ft/ln]		2619.27	3189.23	2112.44	156.41

Movement, Approach, & Intersection Results

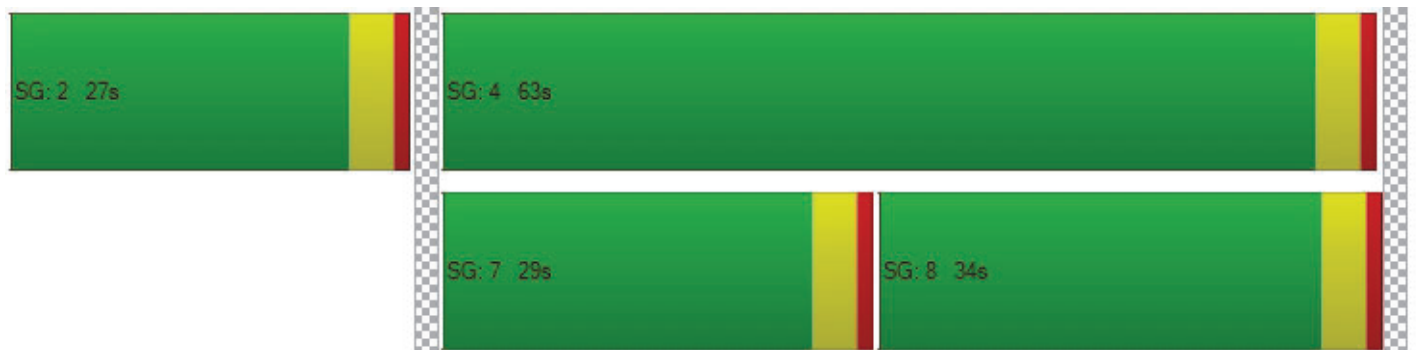
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	647.6	647.6	647.6	0.00	454.2	454.2	289.0	5.88	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			647.62				454.22		176.17		
Approach LOS	A			F				F		F		
d_I, Intersection Delay [s/veh]	376.55											
Intersection LOS	F											
Intersection V/C	1.631											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	511	667	1311
d_b, Bicycle Delay [s]	45.00	24.94	20.00	5.34
I_b,int, Bicycle LOS Score for Intersection	4.132	2.919	3.434	4.125
Bicycle LOS	D	C	C	D

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	409.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.583

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
	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]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	235	1	430	0	0	0	455	692	0	0	1026	1381
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	235	1	430	0	0	0	455	692	0	0	1026	1381
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	62	0	113	0	0	0	120	182	0	0	270	363
Total Analysis Volume [veh/h]	247	1	453	0	0	0	479	728	0	0	1080	1454
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi	Permi	Permi	Permi
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	0	0	0	17	67	0	0	50	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	26	60	30	30
g / C, Green / Cycle	0.25	0.29	0.66	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.42	0.26	0.38	0.57	0.90
s, saturation flow rate [veh/h]	1679	1810	1900	1900	1615
c, Capacity [veh/h]	417	515	1259	634	539
d1, Uniform Delay [s]	33.82	31.31	8.30	29.99	29.99
k, delay calibration	0.50	0.30	0.13	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	316.70	17.72	0.52	323.70	770.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.68	0.93	0.58	1.70	2.70
d, Delay for Lane Group [s/veh]	350.52	49.03	8.81	353.69	800.05
Lane Group LOS	F	D	A	F	F
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	44.64	12.29	6.70	70.08	126.35
50th-Percentile Queue Length [ft/ln]	1116.06	307.27	167.56	1751.96	3158.71
95th-Percentile Queue Length [veh/ln]	69.75	18.04	10.95	108.70	202.21
95th-Percentile Queue Length [ft/ln]	1743.79	451.01	273.70	2717.61	5055.24

Movement, Approach, & Intersection Results

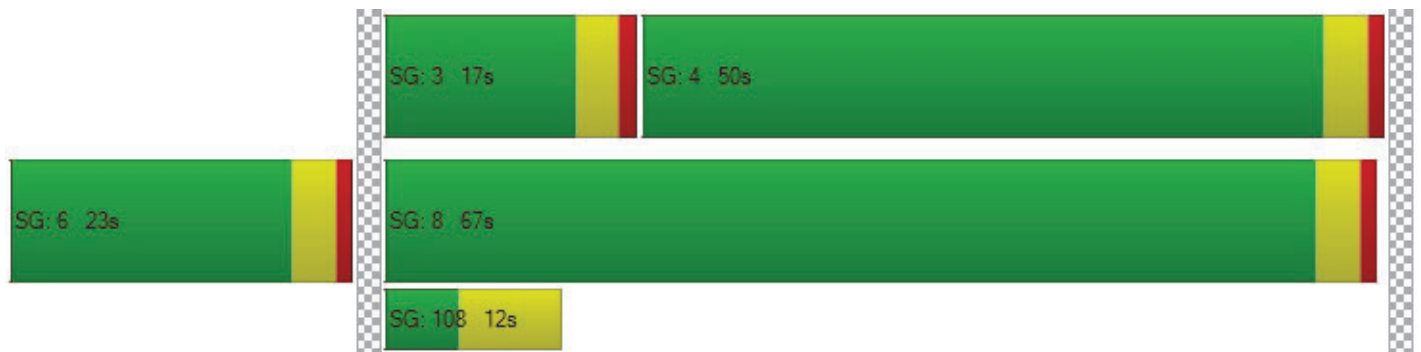
d_M, Delay for Movement [s/veh]	350.5	350.5	350.5	0.00	0.00	0.00	49.03	8.81	0.00	0.00	353.6	800.0
Movement LOS	F	F	F				D	A			F	F
d_A, Approach Delay [s/veh]	350.52			0.00			24.78			609.81		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	409.92											
Intersection LOS	F											
Intersection V/C	1.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.457	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	0	1400	1022
d_b, Bicycle Delay [s]	28.01	45.00	4.05	10.76
I_b,int, Bicycle LOS Score for Intersection	2.716	4.132	3.551	5.741
Bicycle LOS	B	D	D	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.799

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pwky	
Base Volume Input [veh/h]	133	269	156	685	1833	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	269	156	685	1833	65
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]	35	71	41	180	482	17
Total Analysis Volume [veh/h]	140	283	164	721	1929	68
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	13	67	54	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	9	64	51	51
g / C, Green / Cycle	0.20	0.20	0.10	0.72	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.08	0.18	0.09	0.38	0.53	0.04
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	356	318	181	1357	2062	921
d1, Uniform Delay [s]	31.47	35.21	40.08	5.91	17.83	8.69
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]	0.71	8.52	15.26	1.49	9.53	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.89	0.91	0.53	0.94	0.07
d, Delay for Lane Group [s/veh]	32.18	43.73	55.35	7.41	27.36	8.84
Lane Group LOS	C	D	E	A	C	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.65	6.58	4.18	4.70	17.54	0.55
50th-Percentile Queue Length [ft/ln]	66.19	164.53	104.55	117.43	438.61	13.72
95th-Percentile Queue Length [veh/ln]	4.77	10.79	7.53	8.25	24.41	0.99
95th-Percentile Queue Length [ft/ln]	119.14	269.71	188.19	206.29	610.35	24.70

Movement, Approach, & Intersection Results

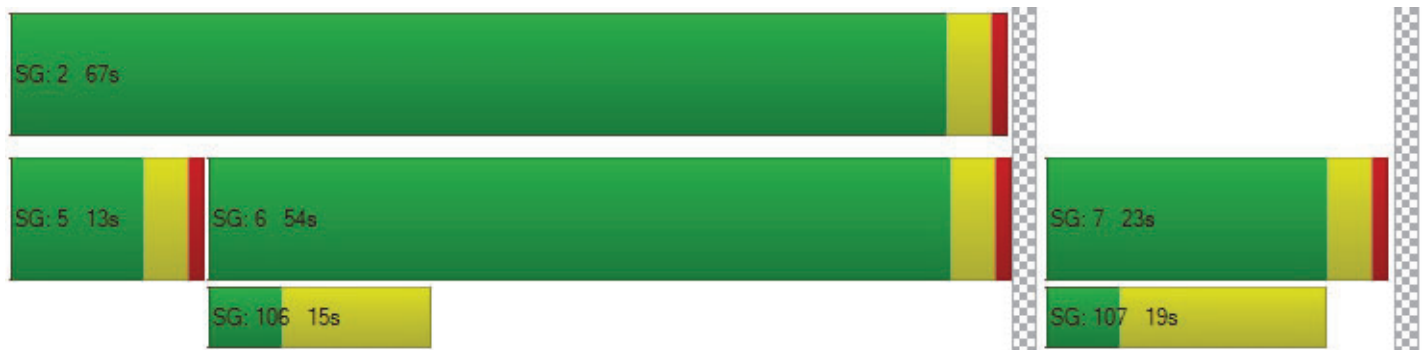
d_M, Delay for Movement [s/veh]	32.18	43.73	55.35	7.41	27.36	8.84
Movement LOS	C	D	E	A	C	A
d_A, Approach Delay [s/veh]	39.91		16.29		26.73	
Approach LOS	D		B		C	
d_I, Intersection Delay [s/veh]	25.62					
Intersection LOS	C					
Intersection V/C	0.799					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.190	3.265	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	1111
d_b, Bicycle Delay [s]	28.01	4.05	8.89
I_b,int, Bicycle LOS Score for Intersection	1.560	3.020	3.207
Bicycle LOS	A	C	C

Sequence

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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	203.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.172

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	105	286	417	131	349	384	215	456	131	1125	1013	352
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	105	286	417	131	349	384	215	456	131	1125	1013	352
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	28	75	110	34	92	101	57	120	34	296	267	93
Total Analysis Volume [veh/h]	111	301	439	138	367	404	226	480	138	1184	1066	371
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	26	0	9	26	0	19	26	0	29	36	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	22	22	5	22	22	13	22	22	25	34	34
g / C, Green / Cycle	0.06	0.25	0.25	0.06	0.25	0.25	0.14	0.24	0.24	0.28	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.06	0.16	0.27	0.08	0.19	0.25	0.12	0.17	0.17	0.65	0.38	0.41
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1756	1810	1900	1741
c, Capacity [veh/h]	101	468	397	101	468	397	262	461	426	503	713	654
d1, Uniform Delay [s]	42.50	30.39	33.93	42.50	31.70	33.93	37.59	31.05	31.05	32.50	28.10	28.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50	0.46	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	73.15	6.68	76.47	180.9	12.44	49.37	8.12	1.90	2.06	616.1	34.01	65.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.10	0.64	1.10	1.37	0.78	1.02	0.86	0.70	0.70	2.36	1.01	1.10
d, Delay for Lane Group [s/veh]	115.6	37.07	110.4	223.4	44.14	83.29	45.71	32.95	33.12	648.6	62.11	93.41
Lane Group LOS	F	D	F	F	D	F	D	C	C	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.20	6.42	16.63	7.21	8.68	13.64	5.19	6.17	5.73	96.43	21.00	24.93
50th-Percentile Queue Length [ft/ln]	105.0	160.5	415.7	180.2	216.9	340.9	129.8	154.2	143.2	2410.	524.9	623.2
95th-Percentile Queue Length [veh/ln]	7.56	10.58	24.65	12.60	13.51	19.88	8.93	10.24	9.66	152.3	28.66	35.31
95th-Percentile Queue Length [ft/ln]	189.0	264.4	616.2	315.0	337.7	497.0	223.2	256.1	241.4	3809.	716.4	882.6

Movement, Approach, & Intersection Results

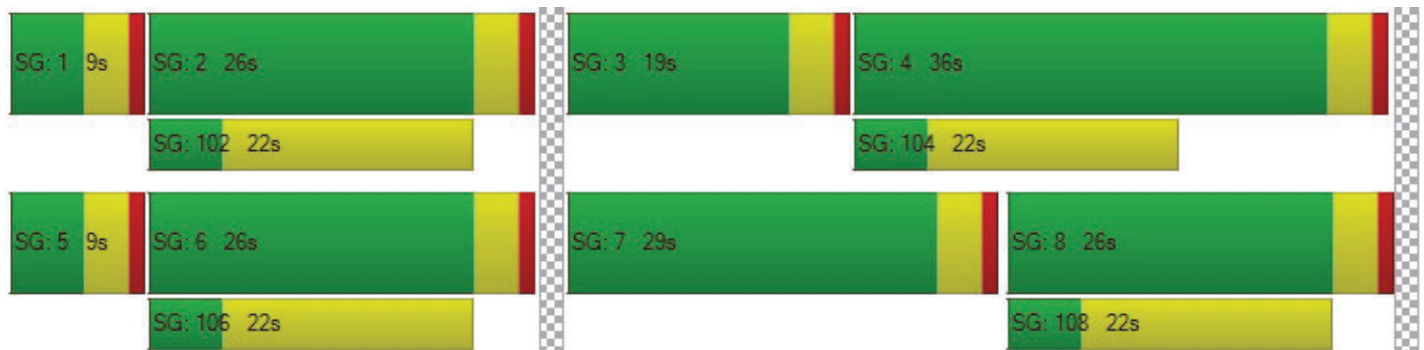
d_M, Delay for Movement [s/veh]	115.6	37.07	110.4	223.4	44.14	83.29	45.71	33.00	33.12	648.6	72.32	93.41
Movement LOS	F	D	F	F	D	F	D	C	C	F	E	F
d_A, Approach Delay [s/veh]	85.14		88.76		36.43		335.65					
Approach LOS	F		F		D		F					
d_I, Intersection Delay [s/veh]	203.57											
Intersection LOS	F											
Intersection V/C	1.172											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.962	2.771	3.011	3.138
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	489	711
d_b, Bicycle Delay [s]	25.69	25.69	25.69	18.69
I_b,int, Bicycle LOS Score for Intersection	2.262	2.310	2.256	3.722
Bicycle LOS	B	B	B	D

Sequence

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



Beaumont Summit Station

Vistro File: \\...\\Cherry Valley Base PM.vistro

Scenario 5 HY PM

Report File: \\...\\7 HY PM.pdf

1/31/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	SB Right	3.192	577.9	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.028	354.5	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	2.150	759.7	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	0.764	87.6	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.423	138.6	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.210	78.0	F
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.661	32.9	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	NB Left	0.082	15.2	C
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.006	12.1	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.322	9.5	A
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	NB Thru	0.887	71.0	E
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.906	158.5	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	2.203	1,037.2	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	2.026	566.0	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Thru	1.186	105.3	F
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	1.878	393.8	F

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For

all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	577.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.192

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	546	7	1088	0	816	513	152	783	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	546	7	1088	0	816	513	152	783	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	144	2	286	0	215	135	40	206	0
Total Analysis Volume [veh/h]	0	0	0	575	7	1145	0	859	540	160	824	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1727	1399	984
Degree of Utilization, x		3.19	1.73	1.29

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		152.49	80.36	37.45
95th-Percentile Queue Length [ft]		3812.33	2008.99	936.22
Approach Delay [s/veh]	0.00	1005.68	346.49	156.29
Approach LOS	A	F	F	F
Intersection Delay [s/veh]	577.94			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	354.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.028

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+						+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Base Volume Input [veh/h]	684	9	227	0	0	0	713	752	0	0	258
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	684	9	227	0	0	0	713	752	0	0	258	448
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	180	2	60	0	0	0	188	198	0	0	68	118
Total Analysis Volume [veh/h]	720	9	239	0	0	0	751	792	0	0	272	472
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	968		1543	836
Degree of Utilization, x	1.84		2.03	0.89

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	61.32		103.35	11.90
95th-Percentile Queue Length [ft]	1533.01		2583.63	297.62
Approach Delay [s/veh]	404.33	0.00	479.27	30.85
Approach LOS	F	A	F	D
Intersection Delay [s/veh]	354.49			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	759.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.150

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	T		↑		↑	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	114	121	159	818	529	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	121	159	818	529	132
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]	30	32	42	215	139	35
Total Analysis Volume [veh/h]	120	127	167	861	557	139
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	2.15	0.26	0.18	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	759.71	702.58	9.85	0.00	0.00	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	22.23	22.23	0.67	0.67	0.00	0.00
95th-Percentile Queue Length [ft/ln]	555.87	555.87	16.75	16.75	0.00	0.00
d_A, Approach Delay [s/veh]	730.33		1.60		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	92.36					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	87.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.764

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	100	3	795	86	0	579
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	3	795	86	0	579
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]	26	1	209	23	0	152
Total Analysis Volume [veh/h]	105	3	837	91	0	609
Pedestrian Volume [ped/h]	0	0	0	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	0.76	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	87.58	71.73	0.00	0.00	9.83	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	4.68	4.68	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	116.99	116.99	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	87.14		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	5.72					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	138.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.423

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	30	6	4	6	9	37	77	852	28	13	600	6
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	30	6	4	6	9	37	77	852	28	13	600	6
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	8	2	1	2	2	10	20	224	7	3	158	2
Total Analysis Volume [veh/h]	32	6	4	6	9	39	81	897	29	14	632	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	498	539	1007	705
Degree of Utilization, x	0.08	0.10	1.42	0.93

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.27	0.33	45.70	12.68
95th-Percentile Queue Length [ft]	6.87	8.30	1142.38	317.08
Approach Delay [s/veh]	10.89	10.42	214.34	40.36
Approach LOS	B	B	F	E
Intersection Delay [s/veh]	138.56			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	78.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.210

Intersection Setup

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach												
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	72	21	8	13	19	21	24	690	63	11	498	9
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	72	21	8	13	19	21	24	690	63	11	498	9
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	19	6	2	3	5	6	6	182	17	3	131	2
Total Analysis Volume [veh/h]	76	22	8	14	20	22	25	726	66	12	524	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	504	508	751	709	611	695
Degree of Utilization, x	0.21	0.11	1.21	0.09	0.88	0.01

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.79	0.37	26.78	0.31	10.23	0.04
95th-Percentile Queue Length [ft]	19.65	9.25	669.46	7.66	255.81	0.98
Approach Delay [s/veh]	12.03	10.98	119.23		36.01	
Approach LOS	B	B	F		E	
Intersection Delay [s/veh]	78.03					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	32.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.661

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	276	370	73	26	402	60	75	272	376	55	213	22
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	276	370	73	26	402	60	75	272	376	55	213	22
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	73	97	19	7	106	16	20	72	99	14	56	6
Total Analysis Volume [veh/h]	291	389	77	27	423	63	79	286	396	58	224	23
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	36	0	9	23	0	19	36	0	9	26	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	43	43	2	29	29	5	25	25	4	23
g / C, Green / Cycle	0.18	0.48	0.48	0.03	0.33	0.33	0.06	0.27	0.27	0.04	0.26
(v / s)_i Volume / Saturation Flow Rate	0.16	0.20	0.05	0.01	0.22	0.04	0.04	0.15	0.25	0.03	0.13
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1869
c, Capacity [veh/h]	327	908	772	50	617	525	105	521	442	77	483
d1, Uniform Delay [s]	35.99	15.43	12.88	43.18	26.39	21.35	41.73	27.92	31.43	42.60	28.52
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.21	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.22	1.48	0.26	8.68	6.10	0.47	10.10	0.91	11.61	13.49	0.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.43	0.10	0.54	0.69	0.12	0.75	0.55	0.90	0.75	0.51
d, Delay for Lane Group [s/veh]	44.21	16.91	13.14	51.87	32.49	21.82	51.83	28.83	43.04	56.09	29.36
Lane Group LOS	D	B	B	D	C	C	D	C	D	E	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.53	4.90	0.80	0.70	8.53	0.97	1.97	5.12	9.20	1.52	4.44
50th-Percentile Queue Length [ft/ln]	163.3	122.4	20.09	17.55	213.3	24.26	49.16	127.9	229.9	38.09	110.89
95th-Percentile Queue Length [veh/ln]	10.73	8.53	1.45	1.26	13.33	1.75	3.54	8.83	14.17	2.74	7.89
95th-Percentile Queue Length [ft/ln]	268.1	213.1	36.15	31.59	333.1	43.67	88.49	220.7	354.3	68.57	197.24

Movement, Approach, & Intersection Results

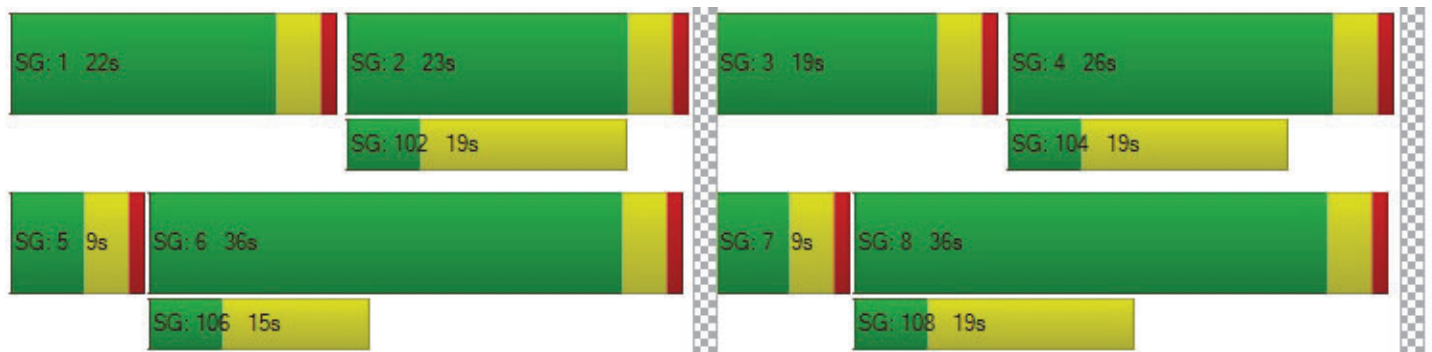
d_M, Delay for Movement [s/veh]	44.21	16.91	13.14	51.87	32.49	21.82	51.83	28.83	43.04	56.09	29.36	29.36
Movement LOS	D	B	B	D	C	C	D	C	D	E	C	C
d_A, Approach Delay [s/veh]	27.02		32.20			38.61			34.44			
Approach LOS	C		C			D			C			
d_I, Intersection Delay [s/veh]	32.90											
Intersection LOS	C											
Intersection V/C	0.661											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.796	2.418	2.568	2.243
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	711	422	711	489
d_b, Bicycle Delay [s]	18.69	28.01	18.69	25.69
I_b,int, Bicycle LOS Score for Intersection	2.809	2.406	2.815	2.063
Bicycle LOS	C	B	C	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	15.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.082

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			Yes		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	32	30	35	20	65	20	55	106	25	42	121	26
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	30	35	20	65	20	55	106	25	42	121	26
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	8	8	9	5	17	5	14	28	7	11	32	7
Total Analysis Volume [veh/h]	34	32	37	21	68	21	58	112	26	44	127	27
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	0.08	0.07	0.04	0.05	0.15	0.02	0.04	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	15.18	14.50	10.20	14.92	14.93	10.67	7.61	0.00	0.00	7.55	0.00	0.00
Movement LOS	C	B	B	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.69	0.69	0.69	0.82	0.82	0.82	0.13	0.00	0.00	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.34	17.34	17.34	20.57	20.57	20.57	3.15	0.00	0.00	2.33	0.00	0.00
d_A, Approach Delay [s/veh]	13.18			14.11			2.25			1.68		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	6.07											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
	1	2	10	24	3	22	11	153	2	6	169	32
Base Volume Input [veh/h]	1	2	10	24	3	22	11	153	2	6	169	32
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	1	2	10	24	3	22	11	153	2	6	169	32
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	1	3	6	1	6	3	40	1	2	44	8
Total Analysis Volume [veh/h]	1	2	11	25	3	23	12	161	2	6	178	34
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.04	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.97	11.90	8.79	11.32	12.07	9.24	7.65	0.00	0.00	7.53	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.23	0.23	0.23	0.03	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.28	1.28	1.28	5.75	5.75	5.75	0.66	0.00	0.00	0.32	0.00	0.00
d_A, Approach Delay [s/veh]	9.39			10.42			0.52			0.21		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	1.75											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.322

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	71	30	153	81	80	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	71	30	153	81	80	169
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]	19	8	40	21	21	44
Total Analysis Volume [veh/h]	75	32	161	85	84	178
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	581	720	763	651	715
Degree of Utilization, x	0.13	0.04	0.32	0.13	0.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.44	0.14	1.40	0.44	0.98
95th-Percentile Queue Length [ft]	11.05	3.48	34.90	11.06	24.49
Approach Delay [s/veh]	9.25		9.94	9.29	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	9.54				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	71.0
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.887

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	62	528	114	308	653	23	43	129	104	70	67	428
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	62	528	114	308	653	23	43	129	104	70	67	428
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	139	30	81	172	6	11	34	27	18	18	113
Total Analysis Volume [veh/h]	65	556	120	324	687	24	45	136	109	74	71	451
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	33	0	19	34	0	9	24	0	14	29	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	29	15	40	3	25	25	5	27
g / C, Green / Cycle	0.05	0.32	0.17	0.44	0.04	0.28	0.28	0.05	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.37	0.18	0.38	0.02	0.07	0.07	0.04	0.32
s, saturation flow rate [veh/h]	1810	1842	1810	1889	1810	1900	1615	1810	1649
c, Capacity [veh/h]	87	597	302	835	68	528	449	97	484
d1, Uniform Delay [s]	42.28	30.42	37.50	22.45	42.72	25.28	25.17	42.00	31.78
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.41
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.74	79.19	47.04	10.63	10.25	0.26	0.28	11.42	59.83
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.74	1.13	1.07	0.85	0.66	0.26	0.24	0.76	1.08
d, Delay for Lane Group [s/veh]	54.02	109.61	84.54	33.08	52.98	25.53	25.45	53.42	91.61
Lane Group LOS	D	F	F	C	D	C	C	D	F
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.67	25.11	10.11	14.04	1.15	2.19	1.75	1.88	17.86
50th-Percentile Queue Length [ft/ln]	41.63	627.85	252.69	350.97	28.77	54.73	43.79	46.93	446.46
95th-Percentile Queue Length [veh/ln]	3.00	36.06	15.84	20.18	2.07	3.94	3.15	3.38	25.95
95th-Percentile Queue Length [ft/ln]	74.94	901.49	396.10	504.59	51.79	98.52	78.83	84.47	648.68

Movement, Approach, & Intersection Results

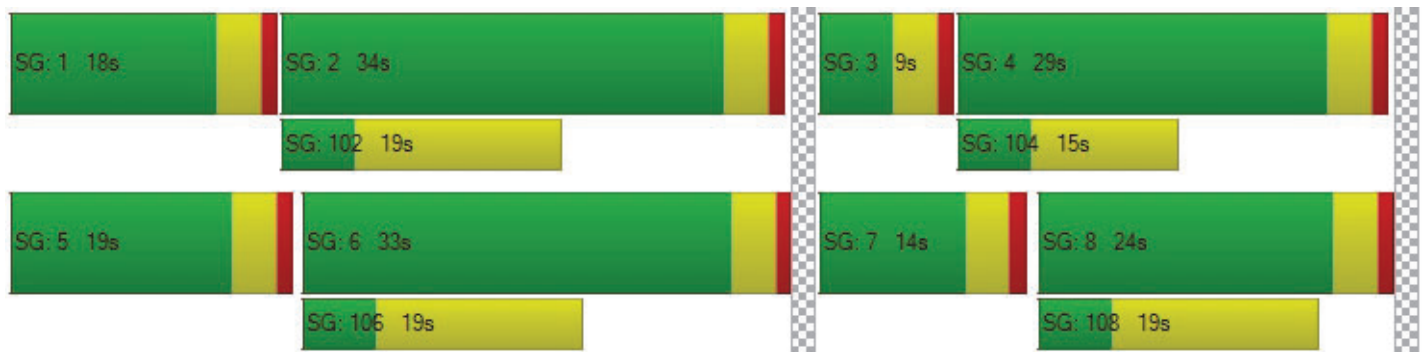
d_M, Delay for Movement [s/veh]	54.02	109.6	109.6	84.54	33.08	33.08	52.98	25.53	25.45	53.42	91.61	91.61
Movement LOS	D	F	F	F	C	C	D	C	C	D	F	F
d_A, Approach Delay [s/veh]	104.73			49.19			29.76			86.87		
Approach LOS	F			D			C			F		
d_I, Intersection Delay [s/veh]	70.97											
Intersection LOS	E											
Intersection V/C	0.887											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.656	3.072	2.279	2.515
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	644	667	444	556
d_b, Bicycle Delay [s]	20.67	20.00	27.22	23.47
I_b,int, Bicycle LOS Score for Intersection	2.782	3.267	2.038	2.543
Bicycle LOS	C	C	B	B

Sequence


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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	158.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.906

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	224	188	219	705	740	283
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	224	188	219	705	740	283
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]	59	49	58	186	195	74
Total Analysis Volume [veh/h]	236	198	231	742	779	298
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	439	369	742	465	465	503
Degree of Utilization, x	0.99	0.63	1.91	0.77	0.77	0.71

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.47	4.08	49.68	6.73	6.73	5.68
95th-Percentile Queue Length [ft]	311.81	101.98	1241.95	168.21	168.21	141.88
Approach Delay [s/veh]	69.34	340.60		29.93		
Approach LOS	F	F		D		
Intersection Delay [s/veh]	158.51					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	1,037.2
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.203

Intersection Setup

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			┌			└		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	1435	9	483	0	661	372	756	858	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	0	0	0	1435	9	483	0	661	372	756	858	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	378	2	127	0	174	98	199	226	0
Total Analysis Volume [veh/h]	0	0	0	1511	9	508	0	696	392	796	903	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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	45	0	0	25	0	20	45	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		1.15	0.61	0.44	0.48
s, saturation flow rate [veh/h]		1757	1786	1810	1900
c, Capacity [veh/h]		355	595	600	1347
d1, Uniform Delay [s]		35.91	30.01	30.08	7.25
k, delay calibration		0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2128.79	379.18	158.29	2.64
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		5.72	1.83	1.33	0.67
d, Delay for Lane Group [s/veh]		2164.71	409.18	188.37	9.90
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		216.65	74.18	38.16	7.32
50th-Percentile Queue Length [ft/ln]		5416.29	1854.50	954.09	183.11
95th-Percentile Queue Length [veh/ln]		326.98	116.52	56.89	11.76
95th-Percentile Queue Length [ft/ln]		8174.56	2913.07	1422.35	294.07

Movement, Approach, & Intersection Results

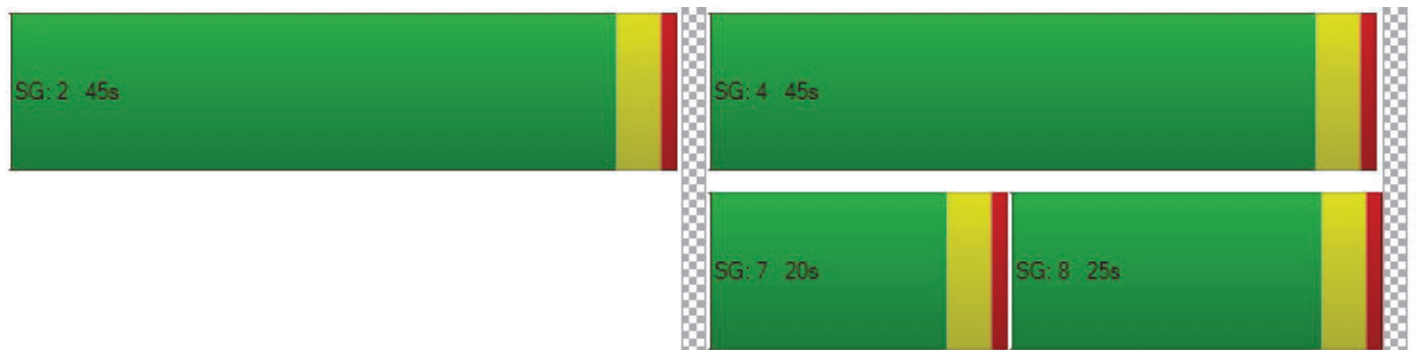
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	2164.	2164.	2164.	0.00	409.1	409.1	188.3	9.90	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			2164.71				409.18		93.51		
Approach LOS	A			F				F		F		
d_I, Intersection Delay [s/veh]	1037.19											
Intersection LOS	F											
Intersection V/C	2.203											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	911	467	911
d_b, Bicycle Delay [s]	45.00	13.34	26.45	13.34
I_b,int, Bicycle LOS Score for Intersection	4.132	4.906	3.355	4.363
Bicycle LOS	D	E	C	E

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	566.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.026

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
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]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	594	8	1129	0	0	0	343	1698	0	0	1020	963
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	594	8	1129	0	0	0	343	1698	0	0	1020	963
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	156	2	297	0	0	0	90	447	0	0	268	253
Total Analysis Volume [veh/h]	625	8	1188	0	0	0	361	1787	0	0	1074	1014
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi	Permi	Permi	Permi
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	49	0	0	0	0	12	41	0	0	29	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	20	54	30	30
g / C, Green / Cycle	0.31	0.22	0.60	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	1.09	0.20	0.94	0.57	0.63
s, saturation flow rate [veh/h]	1678	1810	1900	1900	1615
c, Capacity [veh/h]	523	401	1139	633	538
d1, Uniform Delay [s]	30.97	34.06	18.03	30.00	30.00
k, delay calibration	0.50	0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1121.06	10.28	260.48	320.04	404.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	3.48	0.90	1.57	1.70	1.88
d, Delay for Lane Group [s/veh]	1152.03	44.34	278.51	350.04	434.79
Lane Group LOS	F	D	F	F	F
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	172.62	8.61	102.59	69.38	71.65
50th-Percentile Queue Length [ft/ln]	4315.53	215.20	2564.66	1734.55	1791.14
95th-Percentile Queue Length [veh/ln]	272.92	13.42	159.01	107.56	113.46
95th-Percentile Queue Length [ft/ln]	6822.88	335.50	3975.28	2688.91	2836.57

Movement, Approach, & Intersection Results

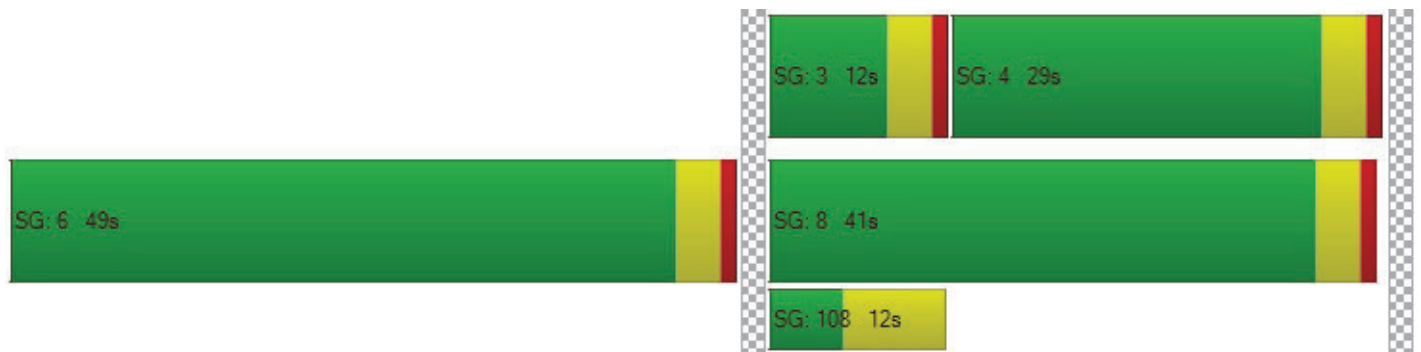
d_M, Delay for Movement [s/veh]	1152.	1152.	1152.	0.00	0.00	0.00	44.34	278.5	0.00	0.00	350.0	434.7
Movement LOS	F	F	F				D	F			F	F
d_A, Approach Delay [s/veh]	1152.03			0.00			239.15			391.20		
Approach LOS	F			A			F			F		
d_I, Intersection Delay [s/veh]	566.02											
Intersection LOS	F											
Intersection V/C	2.026											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	3.640	0.000	0.000	0.000
Crosswalk LOS	D	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	0	822	556
d_b, Bicycle Delay [s]	11.25	45.00	15.61	23.47
I_b,int, Bicycle LOS Score for Intersection	4.564	4.132	5.104	5.005
Bicycle LOS	E	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	105.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.186

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pwky	
Base Volume Input [veh/h]	112	158	216	1955	1224	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	158	216	1955	1224	149
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]	29	42	57	514	322	39
Total Analysis Volume [veh/h]	118	166	227	2058	1288	157
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	37	67	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	11	13	71	53	53
g / C, Green / Cycle	0.13	0.13	0.15	0.78	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.07	0.10	0.13	1.08	0.36	0.10
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	230	206	271	1489	2134	953
d1, Uniform Delay [s]	36.66	38.19	37.22	9.73	11.76	8.39
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]	1.76	7.29	6.85	176.18	1.28	0.37
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	0.51	0.81	0.84	1.38	0.60	0.16
d, Delay for Lane Group [s/veh]	38.41	45.49	44.07	185.91	13.03	8.76
Lane Group LOS	D	D	D	F	B	A
Critical Lane Group	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.47	3.88	5.11	85.53	7.06	1.26
50th-Percentile Queue Length [ft/ln]	61.85	96.96	127.76	2138.18	176.40	31.50
95th-Percentile Queue Length [veh/ln]	4.45	6.98	8.82	129.18	11.41	2.27
95th-Percentile Queue Length [ft/ln]	111.34	174.52	220.45	3229.53	285.31	56.69

Movement, Approach, & Intersection Results

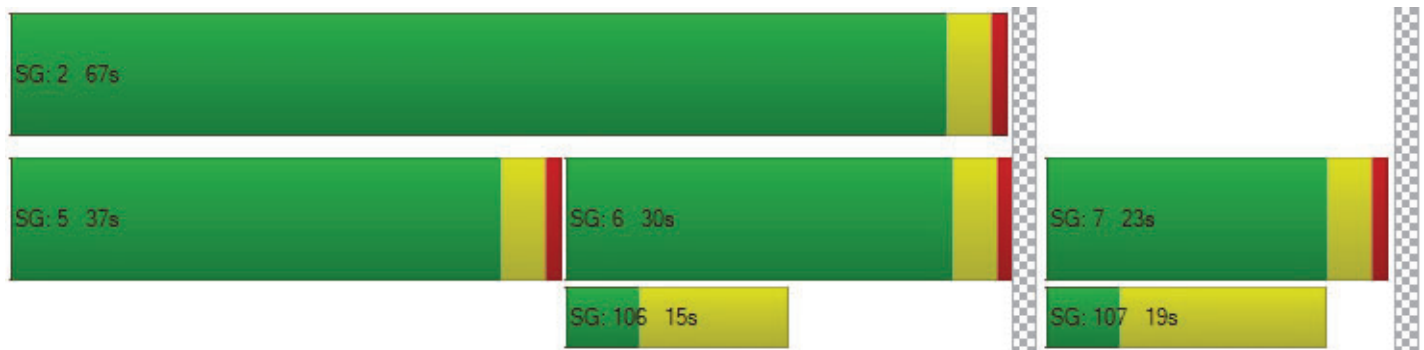
d_M, Delay for Movement [s/veh]	38.41	45.49	44.07	185.91	13.03	8.76
Movement LOS	D	D	D	F	B	A
d_A, Approach Delay [s/veh]	42.55		171.82		12.57	
Approach LOS	D		F		B	
d_I, Intersection Delay [s/veh]	105.35					
Intersection LOS	F					
Intersection V/C	1.186					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.195	3.500	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	578
d_b, Bicycle Delay [s]	28.01	4.05	22.76
I_b,int, Bicycle LOS Score for Intersection	1.560	5.330	2.752
Bicycle LOS	A	F	C

Sequence

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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	393.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.878

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	172	452	1243	436	318	319	412	1071	157	794	846	299
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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]	172	452	1243	436	318	319	412	1071	157	794	846	299
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	45	119	327	115	84	84	108	282	41	209	223	79
Total Analysis Volume [veh/h]	181	476	1308	459	335	336	434	1127	165	836	891	315
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	31	0	13	29	0	17	26	0	20	29	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	27	27	9	25	25	13	22	22	16	25	25
g / C, Green / Cycle	0.12	0.30	0.30	0.10	0.28	0.28	0.14	0.24	0.24	0.18	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.10	0.25	0.81	0.25	0.18	0.21	0.24	0.34	0.35	0.46	0.32	0.35
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1817	1810	1900	1740
c, Capacity [veh/h]	216	570	485	181	533	453	261	464	444	322	528	483
d1, Uniform Delay [s]	38.76	29.42	31.50	40.50	28.29	29.42	38.50	34.00	34.00	37.00	32.50	32.50
k, delay calibration	0.11	0.50	0.50	0.28	0.50	0.50	0.24	0.47	0.49	0.50	0.42	0.48
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	13.53	770.7	700.3	5.54	10.48	305.4	193.5	210.7	728.4	81.93	127.3
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.84	2.70	2.54	0.63	0.74	1.66	1.40	1.44	2.60	1.14	1.25
d, Delay for Lane Group [s/veh]	47.02	42.95	802.2	740.8	33.83	39.90	343.9	227.5	244.7	765.4	114.4	159.8
Lane Group LOS	D	D	F	F	C	D	F	F	F	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.25	11.14	113.5	39.06	6.78	7.53	27.62	34.39	35.02	71.92	22.93	27.09
50th-Percentile Queue Length [ft/ln]	106.3	278.4	2838.	976.4	169.3	188.2	690.5	859.6	875.4	1797.	573.3	677.2
95th-Percentile Queue Length [veh/ln]	7.64	16.61	180.8	61.08	11.04	12.03	43.47	52.09	53.43	112.1	33.31	40.31
95th-Percentile Queue Length [ft/ln]	190.9	415.2	4520.	1526.	276.1	300.7	1086.	1302.	1335.	2804.	832.6	1007.

Movement, Approach, & Intersection Results

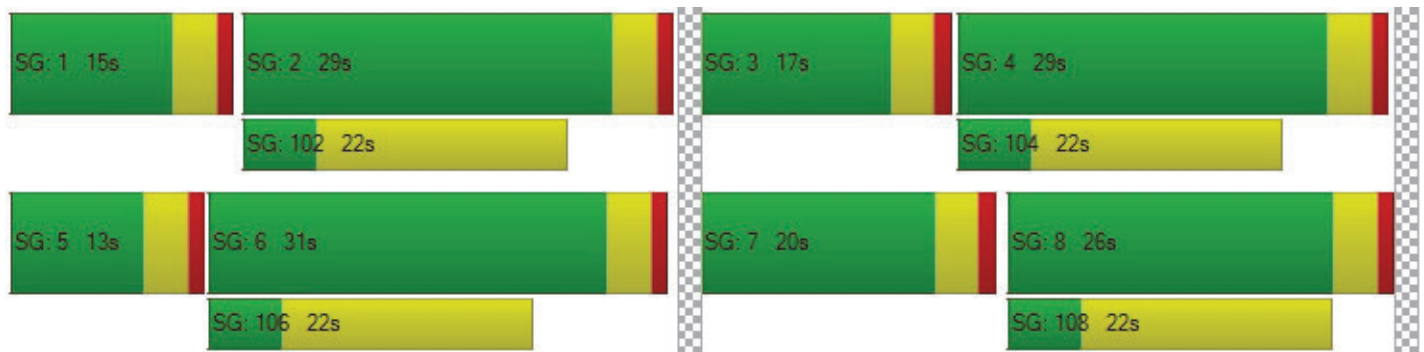
d_M, Delay for Movement [s/veh]	47.02	42.95	802.2	740.8	33.83	39.90	343.9	234.7	244.7	765.4	129.1	159.8
Movement LOS	D	D	F	F	C	D	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	548.73			322.84			263.19			394.35		
Approach LOS	F			F			F			F		
d_I, Intersection Delay [s/veh]	393.79											
Intersection LOS	F											
Intersection V/C	1.878											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.160	2.914	3.218	3.424
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	556	489	556
d_b, Bicycle Delay [s]	22.05	23.47	25.69	23.47
I_b,int, Bicycle LOS Score for Intersection	3.181	2.492	2.984	3.244
Bicycle LOS	C	B	C	C

Sequence

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



Beaumont Summit Station

Vistro File: \\...\\Cherry Valley Base AM.vistro

Scenario 6 HY WP AM

Report File: \\...\\8 HY WP AM.pdf

1/31/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.095	410.8	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Left	2.448	429.0	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	3.271	1,560.8	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	1.653	380.7	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	1.471	141.4	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	WB Thru	1.202	72.5	F
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	EB Left	0.556	30.9	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Left	0.056	13.9	B
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	NB Thru	0.019	11.4	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.442	10.8	B
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	EB Left	0.755	41.2	D
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.494	102.8	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	1.688	401.8	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Right	1.625	429.1	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Left	0.886	44.6	D
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	WB Left	1.180	205.1	F
101	Cherry Valley Blvd at West Project Dwy	Signalized	HCM 6th Edition	WB Left	0.635	5.7	A
	Cherry Valley Blvd at Middle		HCM 6th				

102	Cherry Valley Blvd at Middle Project Dwy	Signalized	HCM 5th Edition	NB Left	0.638	8.9	A
103	Cherry Valley Blvd at East Project Dwy	Two-way stop	HCM 6th Edition	NB Right	0.217	12.2	B

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

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	410.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.095

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	221	0	503	0	1080	535	203	317	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	318	0	0	0	22	0	53	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]	0	0	0	539	0	503	0	1102	535	256	332	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	142	0	132	0	290	141	67	87	0
Total Analysis Volume [veh/h]	0	0	0	567	0	529	0	1160	563	269	349	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1096	1723	755
Degree of Utilization, x		2.01	2.09	0.82

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		74.22	118.04	8.92
95th-Percentile Queue Length [ft]		1855.50	2951.09	222.96
Approach Delay [s/veh]	0.00	474.77	508.36	25.50
Approach LOS	A	F	F	D
Intersection Delay [s/veh]	410.83			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	429.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.448

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	+						+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	252	5	224	0	0	0	1074	327	0	0	238	733
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	219	0	0	0	0	340	0	0	68	101
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	252	5	443	0	0	0	1074	667	0	0	306	834
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	66	1	117	0	0	0	283	176	0	0	81	219
Total Analysis Volume [veh/h]	265	5	466	0	0	0	1131	702	0	0	322	878
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	736		1833	1200
Degree of Utilization, x	1.37		2.45	1.42

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	32.98		140.41	52.59
95th-Percentile Queue Length [ft]	824.41		3510.33	1314.85
Approach Delay [s/veh]	196.00	0.00	667.31	207.76
Approach LOS	F	A	F	F
Intersection Delay [s/veh]	428.96			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	1,560.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.271

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	T		↑		↑	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	53	129	123	451	786	173
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	559	169	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]	53	129	123	1010	955	173
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]	14	34	32	266	251	46
Total Analysis Volume [veh/h]	56	136	129	1063	1005	182
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	3.27	0.52	0.22	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	1560.75	1364.25	12.71	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	21.08	21.08	0.82	0.82	0.00	0.00
95th-Percentile Queue Length [ft/ln]	527.06	527.06	20.46	20.46	0.00	0.00
d_A, Approach Delay [s/veh]	1421.57		1.38		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	106.80					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	380.7
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.653

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	194	0	304	42	0	757
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	131	15	0	197
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]	216	0	435	57	0	954
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]	57	0	114	15	0	251
Total Analysis Volume [veh/h]	227	0	458	60	0	1004
Pedestrian Volume [ped/h]	0	0	0	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	1.65	0.00	0.00	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	380.67	360.63	0.00	0.00	8.40	0.00
Movement LOS	F	F	A	A	A	A
95th-Percentile Queue Length [veh/ln]	16.40	16.40	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	409.92	409.92	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	380.67		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	49.41					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	141.4
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.471

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	65	2	4	0	5	110	31	366	13	3	707	4
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	0	0	0	0	0	0	101	30	0	153	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]	109	2	4	0	5	110	31	467	43	3	860	4
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	29	1	1	0	1	29	8	123	11	1	226	1
Total Analysis Volume [veh/h]	115	2	4	0	5	116	33	492	45	3	905	4
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	473	519	622	912
Degree of Utilization, x	0.26	0.23	0.92	1.47

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.01	0.89	11.74	44.22
95th-Percentile Queue Length [ft]	25.23	22.37	293.56	1105.45
Approach Delay [s/veh]	13.22	12.02	42.42	237.41
Approach LOS	B	B	E	F
Intersection Delay [s/veh]	141.39			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	72.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.202

Intersection Setup

Name				Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name				Nancy Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	43	20	4	6	27	58	26	210	72	3	600	1
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	65	0	0	0	0	0	0	60	41	0	88	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]	108	20	4	6	27	58	26	270	113	3	688	1
Peak Hour Factor	0.940	0.940	0.940	0.950	0.940	0.950	0.950	0.950	0.940	0.940	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	29	5	1	2	7	15	7	71	30	1	181	0
Total Analysis Volume [veh/h]	115	21	4	6	29	61	27	284	120	3	724	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	515	539	583	663	727	687
Degree of Utilization, x	0.27	0.18	0.53	0.18	1.20	0.00

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.10	0.64	3.14	0.66	25.84	0.00
95th-Percentile Queue Length [ft]	27.38	16.05	78.54	16.43	645.90	0.11
Approach Delay [s/veh]	12.59	11.11	13.94		126.72	
Approach LOS	B	B	B		F	
Intersection Delay [s/veh]	72.46					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	30.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.556

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	278	353	33	13	295	56	46	118	161	38	268	13
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	44	0	0	0	0	22	15	15	30	0	22	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]	322	353	33	13	295	78	61	133	191	38	290	13
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	85	93	9	3	78	21	16	35	50	10	76	3
Total Analysis Volume [veh/h]	339	372	35	14	311	82	64	140	201	40	305	14
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	29	40	0	12	23	0	11	27	0	11	27	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	51	51	2	34	34	4	18	18	3	17
g / C, Green / Cycle	0.21	0.57	0.57	0.02	0.37	0.37	0.05	0.20	0.20	0.04	0.19
(v / s)_i Volume / Saturation Flow Rate	0.19	0.20	0.02	0.01	0.16	0.05	0.04	0.07	0.12	0.02	0.17
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1885
c, Capacity [veh/h]	380	1076	914	32	710	604	84	385	328	65	363
d1, Uniform Delay [s]	34.58	10.54	8.66	43.77	21.10	18.59	42.44	30.87	32.66	42.78	35.33
k, delay calibration	0.13	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.65	0.88	0.08	9.33	1.96	0.47	13.48	0.57	1.87	9.21	6.93
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.35	0.04	0.44	0.44	0.14	0.77	0.36	0.61	0.62	0.88
d, Delay for Lane Group [s/veh]	43.23	11.42	8.74	53.10	23.06	19.06	55.92	31.45	34.53	52.00	42.25
Lane Group LOS	D	B	A	D	C	B	E	C	C	D	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.57	3.52	0.27	0.39	5.05	1.16	1.67	2.57	3.98	1.02	7.17
50th-Percentile Queue Length [ft/ln]	189.3	87.91	6.79	9.63	126.1	29.03	41.85	64.23	99.47	25.39	179.25
95th-Percentile Queue Length [veh/ln]	12.09	6.33	0.49	0.69	8.73	2.09	3.01	4.62	7.16	1.83	11.56
95th-Percentile Queue Length [ft/ln]	302.1	158.2	12.22	17.33	218.2	52.25	75.32	115.6	179.0	45.70	289.03

Movement, Approach, & Intersection Results

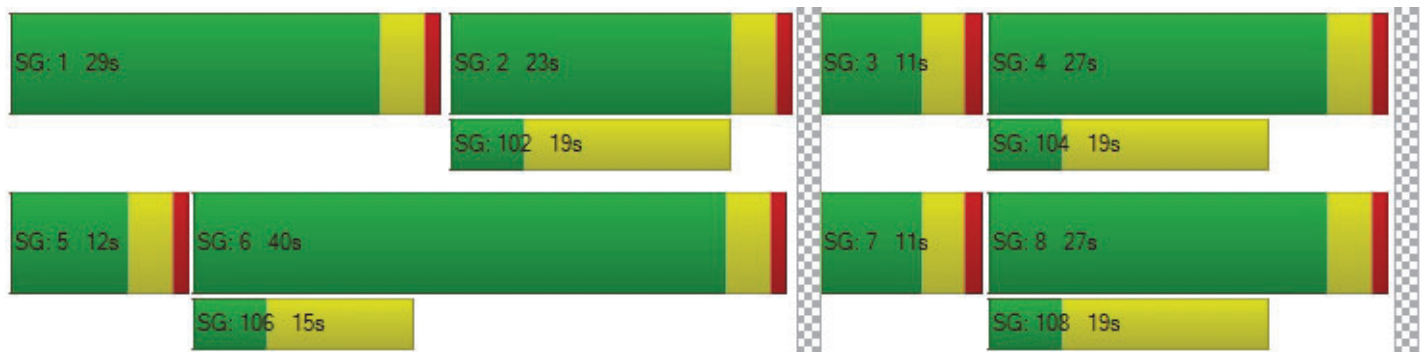
d_M, Delay for Movement [s/veh]	43.23	11.42	8.74	53.10	23.06	19.06	55.92	31.45	34.53	52.00	42.25	42.25
Movement LOS	D	B	A	D	C	B	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	25.75			23.29			36.84			43.34		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	30.86											
Intersection LOS	C											
Intersection V/C	0.556											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.660	2.376	2.500	2.179
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	422	511	511
d_b, Bicycle Delay [s]	16.20	28.01	24.94	24.94
I_b,int, Bicycle LOS Score for Intersection	2.791	2.231	2.228	2.152
Bicycle LOS	C	B	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	135	27	9	24	9	66	73	0	12	54	6
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	15	0	0	0	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	135	27	24	24	9	66	73	0	12	54	28
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	36	7	6	6	2	17	19	0	3	14	7
Total Analysis Volume [veh/h]	0	142	28	25	25	9	69	77	0	13	57	29
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.25	0.03	0.06	0.04	0.01	0.05	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	13.31	13.67	10.77	13.91	12.08	9.32	7.48	0.00	0.00	7.37	0.00	0.00
Movement LOS	B	B	B	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.14	1.14	1.14	0.36	0.36	0.36	0.14	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	28.48	28.48	28.48	9.09	9.09	9.09	3.56	0.00	0.00	0.64	0.00	0.00
d_A, Approach Delay [s/veh]	13.19			12.44			3.53			0.97		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	7.57											
Intersection LOS	B											

**Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave**

Control Type:	Two-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			TTL			TTL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	0	10	4	17	0	8	5	119	0	1	71	49
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	30	0	0	0	15	0	0	22	44
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	10	4	47	0	8	5	134	0	1	93	93
Peak Hour Factor	0.950	0.950	0.959	0.959	0.950	0.950	0.950	0.959	0.950	0.959	0.959	0.959
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	3	1	12	0	2	1	35	0	0	24	24
Total Analysis Volume [veh/h]	0	11	4	49	0	8	5	140	0	1	97	97
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.07	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.05	11.36	8.79	10.63	11.28	9.23	7.60	0.00	0.00	7.47	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.07	0.26	0.26	0.26	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.77	1.77	1.77	6.44	6.44	6.44	0.27	0.00	0.00	0.05	0.00	0.00
d_A, Approach Delay [s/veh]	10.67			10.44			0.26			0.04		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	1.94											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.442

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	46	74	119	66	29	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	87	0	30	56	0	44
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	74	149	122	29	115
Peak Hour Factor	0.8440	0.9500	0.8440	0.8440	0.9500	0.8440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	19	44	36	8	34
Total Analysis Volume [veh/h]	158	78	177	145	31	136
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	578	717	728	596	651
Degree of Utilization, x	0.27	0.11	0.44	0.05	0.21

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.10	0.36	2.27	0.16	0.78
95th-Percentile Queue Length [ft]	27.62	9.11	56.85	4.10	19.58
Approach Delay [s/veh]	10.29		11.80	9.57	
Approach LOS	B		B	A	
Intersection Delay [s/veh]	10.79				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	41.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.755

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	77	506	28	344	384	35	4	47	55	80	103	247
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	44	0	0	30	0	0	15	15	0	22	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]	99	550	28	344	414	35	4	62	70	80	125	247
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	26	145	7	91	109	9	1	16	18	21	33	65
Total Analysis Volume [veh/h]	104	579	29	362	436	37	4	65	74	84	132	260
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	19	23	0	28	32	0	9	23	0	16	30	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
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
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	31	20	44	1	18	18	5	23
g / C, Green / Cycle	0.07	0.34	0.22	0.49	0.01	0.20	0.20	0.06	0.25
(v / s)_i Volume / Saturation Flow Rate	0.06	0.32	0.20	0.25	0.00	0.03	0.05	0.05	0.23
s, saturation flow rate [veh/h]	1810	1884	1810	1874	1810	1900	1615	1810	1701
c, Capacity [veh/h]	136	643	401	914	11	377	321	111	431
d1, Uniform Delay [s]	40.86	28.85	34.10	15.80	44.55	29.92	30.29	41.60	32.58
k, delay calibration	0.11	0.50	0.16	0.50	0.11	0.11	0.11	0.11	0.22
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.72	24.46	10.62	2.09	19.00	0.21	0.36	10.17	13.61
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.95	0.90	0.52	0.36	0.17	0.23	0.76	0.91
d, Delay for Lane Group [s/veh]	49.58	53.31	44.71	17.90	63.55	30.14	30.65	51.77	46.19
Lane Group LOS	D	D	D	B	E	C	C	D	D
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.51	16.15	8.27	6.22	0.14	1.15	1.33	2.09	9.44
50th-Percentile Queue Length [ft/ln]	62.84	403.69	206.86	155.54	3.61	28.65	33.18	52.18	235.90
95th-Percentile Queue Length [veh/ln]	4.52	22.74	12.99	10.31	0.26	2.06	2.39	3.76	14.47
95th-Percentile Queue Length [ft/ln]	113.11	568.44	324.79	257.80	6.49	51.58	59.72	93.92	361.84

Movement, Approach, & Intersection Results

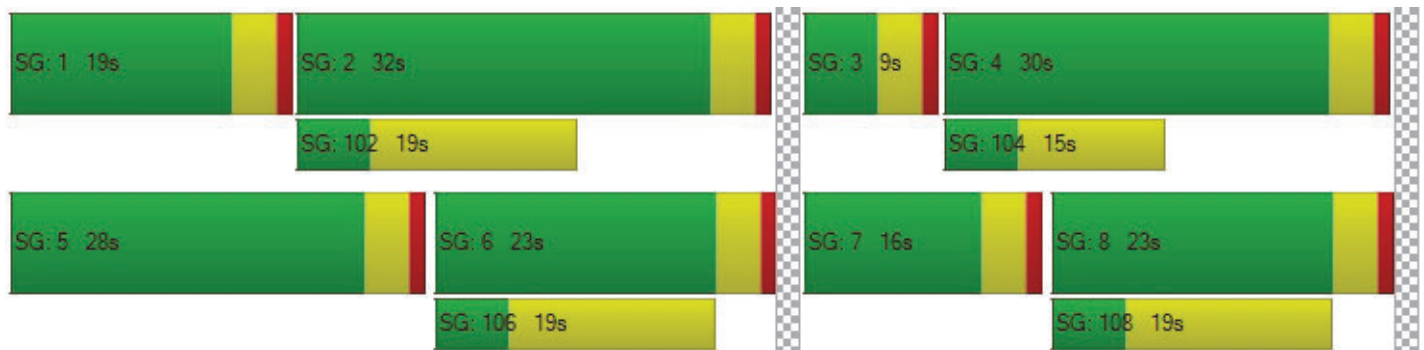
d_M, Delay for Movement [s/veh]	49.58	53.31	53.31	44.71	17.90	17.90	63.55	30.14	30.65	51.77	46.19	46.19
Movement LOS	D	D	D	D	B	B	E	C	C	D	D	D
d_A, Approach Delay [s/veh]	52.76		29.52		31.34		47.17					
Approach LOS	D		C		C		D					
d_I, Intersection Delay [s/veh]	41.16											
Intersection LOS	D											
Intersection V/C	0.755											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.557	2.851	2.268	2.435
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	622	422	578
d_b, Bicycle Delay [s]	28.01	21.36	28.01	22.76
I_b,int, Bicycle LOS Score for Intersection	2.734	2.937	1.796	2.345
Bicycle LOS	B	C	A	B

Sequence

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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	102.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.494

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	T		↵			
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	318	105	53	560	625	178
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	22	15	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]	318	105	53	582	640	178
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]	84	28	14	153	168	47
Total Analysis Volume [veh/h]	335	111	56	613	674	187
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	464	387	613	476	476	507
Degree of Utilization, x	0.96	0.14	1.49	0.60	0.60	0.57

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	11.86	0.50	32.42	3.91	3.91	3.48
95th-Percentile Queue Length [ft]	296.53	12.54	810.45	97.82	97.82	87.02
Approach Delay [s/veh]	60.66	237.18		20.31		
Approach LOS	F	F		C		
Intersection Delay [s/veh]	102.84					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	401.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.688

Intersection Setup

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	540	8	236	0	618	461	888	589	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	37	0	0	22	0	41	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	540	45	236	0	640	461	929	604	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	142	12	62	0	168	121	244	159	0
Total Analysis Volume [veh/h]	0	0	0	568	47	248	0	674	485	978	636	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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	27	0	0	34	0	29	63	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		0.49	0.66	0.54	0.33
s, saturation flow rate [veh/h]		1753	1769	1810	1900
c, Capacity [veh/h]		353	590	600	1348
d1, Uniform Delay [s]		35.93	30.00	30.07	5.71
k, delay calibration		0.50	0.50	0.50	0.11
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		657.51	440.44	290.58	0.26
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		2.44	1.97	1.63	0.47
d, Delay for Lane Group [s/veh]		693.44	470.44	320.65	5.96
Lane Group LOS		F	F	F	A
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		71.40	83.55	60.25	3.61
50th-Percentile Queue Length [ft/ln]		1785.02	2088.64	1506.28	90.27
95th-Percentile Queue Length [veh/ln]		112.07	132.12	93.24	6.50
95th-Percentile Queue Length [ft/ln]		2801.76	3302.93	2331.04	162.49

Movement, Approach, & Intersection Results

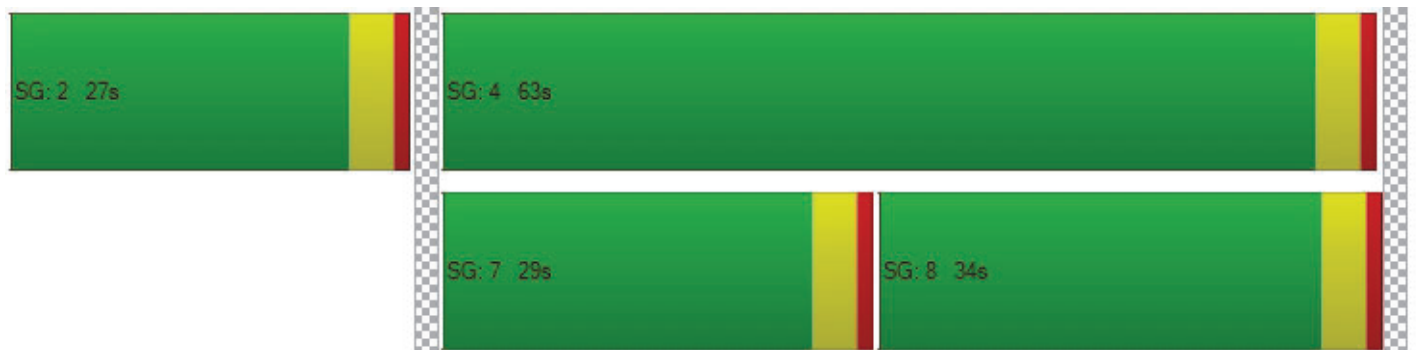
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	693.4	693.4	693.4	0.00	470.4	470.4	320.6	5.96	0.00
Movement LOS				F	F	F		F	F	F	A	
d_A, Approach Delay [s/veh]	0.00			693.44			470.44			196.65		
Approach LOS	A			F			F			F		
d_I, Intersection Delay [s/veh]	401.83											
Intersection LOS	F											
Intersection V/C	1.688											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	511	667	1311
d_b, Bicycle Delay [s]	45.00	24.94	20.00	5.34
I_b,int, Bicycle LOS Score for Intersection	4.132	2.984	3.472	4.223
Bicycle LOS	D	C	C	D

Sequence




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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	429.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.625

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
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]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	235	1	430	0	0	0	455	692	0	0	1026	1381
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	65	0	0	0	0	22	0	0	56	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]	235	1	495	0	0	0	455	714	0	0	1082	1381
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	62	0	130	0	0	0	120	188	0	0	285	363
Total Analysis Volume [veh/h]	247	1	521	0	0	0	479	752	0	0	1139	1454
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi	Permi	Permi	Permi
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	23	0	0	0	0	17	67	0	0	50	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	26	60	30	30
g / C, Green / Cycle	0.25	0.29	0.66	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.46	0.26	0.40	0.60	0.90
s, saturation flow rate [veh/h]	1673	1810	1900	1900	1615
c, Capacity [veh/h]	416	515	1259	634	539
d1, Uniform Delay [s]	33.82	31.31	8.47	29.99	29.99
k, delay calibration	0.50	0.30	0.15	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	391.88	17.72	0.62	365.16	770.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.85	0.93	0.60	1.80	2.70
d, Delay for Lane Group [s/veh]	425.70	49.03	9.09	395.15	800.05
Lane Group LOS	F	D	A	F	F
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	53.16	12.29	7.09	77.38	126.35
50th-Percentile Queue Length [ft/ln]	1329.12	307.27	177.33	1934.40	3158.71
95th-Percentile Queue Length [veh/ln]	83.64	18.04	11.46	120.80	202.21
95th-Percentile Queue Length [ft/ln]	2091.12	451.01	286.52	3020.08	5055.24

Movement, Approach, & Intersection Results

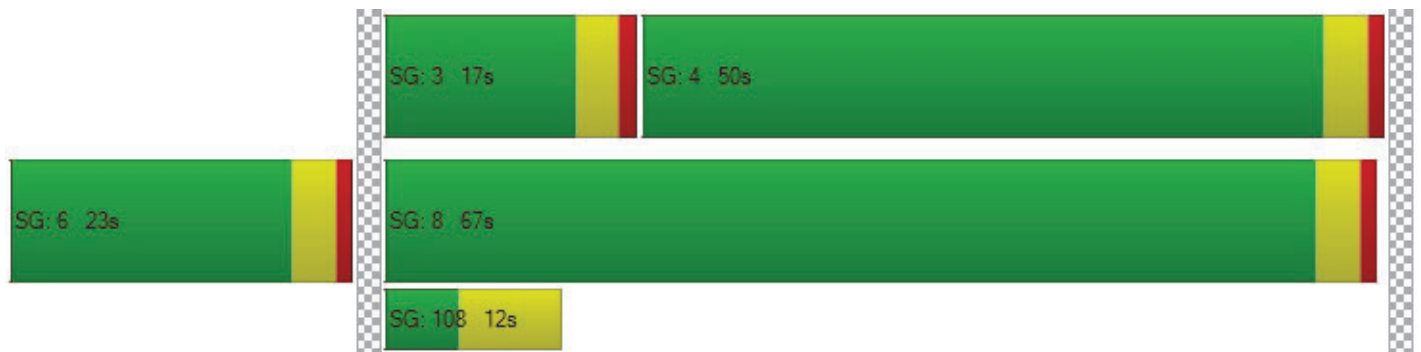
d_M, Delay for Movement [s/veh]	425.7	425.7	425.7	0.00	0.00	0.00	49.03	9.09	0.00	0.00	395.1	800.0
Movement LOS	F	F	F				D	A			F	F
d_A, Approach Delay [s/veh]	425.70			0.00			24.63			622.19		
Approach LOS	F			A			C			F		
d_I, Intersection Delay [s/veh]	429.14											
Intersection LOS	F											
Intersection V/C	1.625											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.529	0.000	0.000	0.000
Crosswalk LOS	B	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	0	1400	1022
d_b, Bicycle Delay [s]	28.01	45.00	4.05	10.76
I_b,int, Bicycle LOS Score for Intersection	2.828	4.132	3.591	5.838
Bicycle LOS	C	D	D	F

Sequence




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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	44.6
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.886

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pwky	
Base Volume Input [veh/h]	133	269	156	685	1833	65
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	56	87	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]	133	325	243	685	1833	65
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]	35	86	64	180	482	17
Total Analysis Volume [veh/h]	140	342	256	721	1929	68
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	13	67	54	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	9	63	50	50
g / C, Green / Cycle	0.21	0.21	0.10	0.70	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.08	0.21	0.14	0.38	0.53	0.04
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	382	341	181	1330	2010	897
d1, Uniform Delay [s]	30.35	35.50	40.50	6.53	19.04	9.28
k, delay calibration	0.11	0.18	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	30.24	193.70	1.59	12.60	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.37	1.00	1.41	0.54	0.96	0.08
d, Delay for Lane Group [s/veh]	30.94	65.74	234.20	8.12	31.65	9.44
Lane Group LOS	C	F	F	A	C	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.58	10.04	13.54	5.16	19.11	0.58
50th-Percentile Queue Length [ft/ln]	64.57	251.07	338.58	128.99	477.77	14.42
95th-Percentile Queue Length [veh/ln]	4.65	15.26	21.99	8.88	26.28	1.04
95th-Percentile Queue Length [ft/ln]	116.23	381.62	549.78	222.12	657.00	25.95

Movement, Approach, & Intersection Results

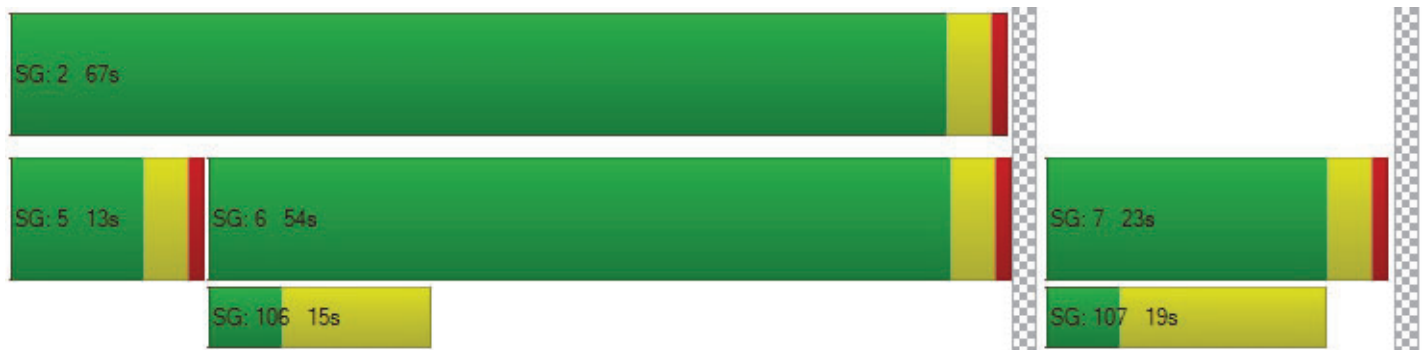
d_M, Delay for Movement [s/veh]	30.94	65.74	234.20	8.12	31.65	9.44
Movement LOS	C	F	F	A	C	A
d_A, Approach Delay [s/veh]	55.63		67.36		30.89	
Approach LOS	E		E		C	
d_I, Intersection Delay [s/veh]	44.65					
Intersection LOS	D					
Intersection V/C	0.886					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.247	3.320	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	1111
d_b, Bicycle Delay [s]	28.01	4.05	8.89
I_b,int, Bicycle LOS Score for Intersection	1.560	3.172	3.207
Bicycle LOS	A	C	C

Sequence

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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	205.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.180

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	105	286	417	131	349	384	215	456	131	1125	1013	352
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	44	0	15	30	0	0	0	0	0	0	22
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	105	330	417	146	379	384	215	456	131	1125	1013	374
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	28	87	110	38	100	101	57	120	34	296	267	98
Total Analysis Volume [veh/h]	111	347	439	154	399	404	226	480	138	1184	1066	394
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	9	26	0	9	26	0	19	26	0	29	36	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	22	22	5	22	22	13	22	22	25	34	34
g / C, Green / Cycle	0.06	0.25	0.25	0.06	0.25	0.25	0.14	0.24	0.24	0.28	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.06	0.18	0.27	0.09	0.21	0.25	0.12	0.17	0.17	0.65	0.38	0.42
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1756	1810	1900	1735
c, Capacity [veh/h]	101	468	397	101	468	397	262	461	426	503	713	651
d1, Uniform Delay [s]	42.50	31.29	33.93	42.50	32.37	33.93	37.59	31.05	31.05	32.50	28.10	28.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.11	0.50	0.47	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]	73.15	10.18	76.47	250.0	17.66	49.37	8.12	1.90	2.06	616.1	38.69	73.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	1.10	0.74	1.10	1.53	0.85	1.02	0.86	0.70	0.70	2.36	1.02	1.12
d, Delay for Lane Group [s/veh]	115.6	41.47	110.4	292.5	50.04	83.29	45.71	32.95	33.12	648.6	66.79	101.3
Lane Group LOS	F	D	F	F	D	F	D	C	C	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.20	7.91	16.63	9.14	10.14	13.64	5.19	6.17	5.73	96.43	21.93	26.28
50th-Percentile Queue Length [ft/ln]	105.0	197.8	415.7	228.4	253.4	340.9	129.8	154.2	143.2	2410.	548.1	657.0
95th-Percentile Queue Length [veh/ln]	7.56	12.53	24.65	15.66	15.36	19.88	8.93	10.24	9.66	152.3	30.09	37.45
95th-Percentile Queue Length [ft/ln]	189.0	313.2	616.2	391.3	383.9	497.0	223.2	256.1	241.4	3809.	752.2	936.1

Movement, Approach, & Intersection Results

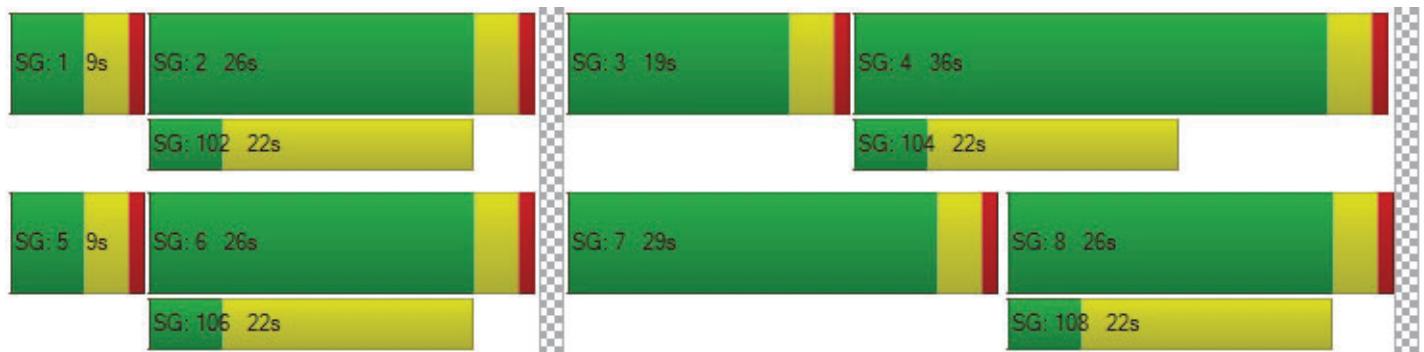
d_M, Delay for Movement [s/veh]	115.6	41.47	110.4	292.5	50.04	83.29	45.71	33.00	33.12	648.6	77.70	101.3
Movement LOS	F	D	F	F	D	F	D	C	C	F	E	F
d_A, Approach Delay [s/veh]	84.38			103.10			36.43			336.90		
Approach LOS	F			F			D			F		
d_I, Intersection Delay [s/veh]	205.14											
Intersection LOS	F											
Intersection V/C	1.180											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.982	2.802	3.011	3.147
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	489	711
d_b, Bicycle Delay [s]	25.69	25.69	25.69	18.69
I_b,int, Bicycle LOS Score for Intersection	2.300	2.349	2.256	3.741
Bicycle LOS	B	B	B	D

Sequence

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



Intersection Level Of Service Report
Intersection 101: Cherry Valley Blvd at West Project Dwy

Control Type:	Signalized	Delay (sec / veh):	5.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.635

Intersection Setup

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

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	504	0	0	959
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]	17	0	503	57	9	152
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]	17	0	1007	57	9	1111
Peak Hour Factor	0.9200	0.9200	0.9500	0.9200	0.9200	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	265	15	2	292
Total Analysis Volume [veh/h]	18	0	1060	62	10	1169
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	20	0	39	0	31	70
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	7	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	C	C	L	C
C, Cycle Length [s]	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	75	1	80
g / C, Green / Cycle	0.02	0.83	0.01	0.89
(v / s)_i Volume / Saturation Flow Rate	0.01	0.61	0.01	0.63
s, saturation flow rate [veh/h]	1781	1852	1781	1870
c, Capacity [veh/h]	37	1542	24	1665
d1, Uniform Delay [s]	43.59	3.20	44.05	1.44
k, delay calibration	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.60	3.05	11.24	2.50
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	0.49	0.73	0.42	0.70
d, Delay for Lane Group [s/veh]	53.19	6.25	55.29	3.94
Lane Group LOS	D	A	E	A
Critical Lane Group	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.49	4.95	0.29	1.16
50th-Percentile Queue Length [ft/ln]	12.28	123.80	7.34	28.92
95th-Percentile Queue Length [veh/ln]	0.88	8.60	0.53	2.08
95th-Percentile Queue Length [ft/ln]	22.11	215.03	13.22	52.06

Movement, Approach, & Intersection Results

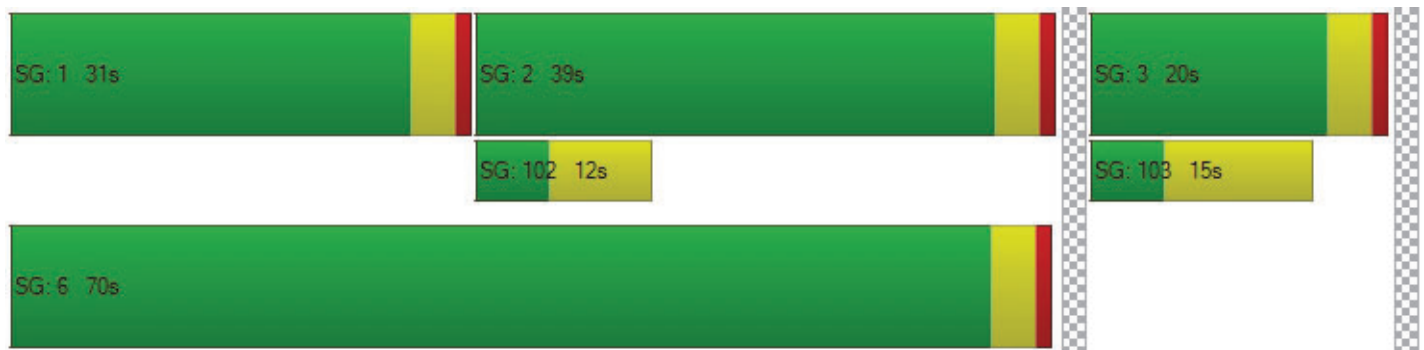
d_M, Delay for Movement [s/veh]	53.19	53.19	6.25	6.25	55.29	3.94
Movement LOS	D	D	A	A	E	A
d_A, Approach Delay [s/veh]	53.19		6.25		4.38	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	5.66					
Intersection LOS	A					
Intersection V/C	0.635					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.760	2.842	2.678
Crosswalk LOS	A	C	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	356	778	1467
d_b, Bicycle Delay [s]	30.42	16.81	3.20
I_b,int, Bicycle LOS Score for Intersection	1.589	3.411	3.505
Bicycle LOS	A	C	D

Sequence




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



Intersection Level Of Service Report
Intersection 102: Cherry Valley Blvd at Middle Project Dwy

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.638

Intersection Setup

Name	Cherry Valley Blvd		Cherry Valley Blvd			
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	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	504	0	0	959
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]	152	18	148	355	211	9
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]	152	18	652	355	211	968
Peak Hour Factor	0.9200	0.9200	0.9500	0.9200	0.9200	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	5	172	96	57	255
Total Analysis Volume [veh/h]	165	20	686	386	229	1019
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	ProtPerm	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	27	0	21	0	42	63
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	17	0	10	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00
g_i, Effective Green Time [s]	10	10	62	62	72	72
g / C, Green / Cycle	0.12	0.12	0.69	0.69	0.80	0.80
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.19	0.24	0.35	0.54
s, saturation flow rate [veh/h]	1781	1589	3560	1589	656	1870
c, Capacity [veh/h]	205	183	2462	1099	596	1488
d1, Uniform Delay [s]	38.83	35.68	5.30	5.65	2.73	4.12
k, delay calibration	0.11	0.11	0.50	0.50	0.33	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.20	0.26	0.28	0.88	1.24	2.58
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.11	0.28	0.35	0.38	0.68
d, Delay for Lane Group [s/veh]	46.02	35.94	5.58	6.54	3.98	6.70
Lane Group LOS	D	D	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.91	0.40	1.65	2.14	0.79	6.03
50th-Percentile Queue Length [ft/ln]	97.72	10.07	41.32	53.43	19.71	150.65
95th-Percentile Queue Length [veh/ln]	7.04	0.73	2.97	3.85	1.42	10.05
95th-Percentile Queue Length [ft/ln]	175.89	18.13	74.37	96.17	35.47	251.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.02	35.94	5.58	6.54	3.98	6.70
Movement LOS	D	D	A	A	A	A
d_A, Approach Delay [s/veh]	44.93		5.93		6.20	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.94					
Intersection LOS	A					
Intersection V/C	0.638					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.435	3.141	2.682
Crosswalk LOS	B	C	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	511	378	1311
d_b, Bicycle Delay [s]	24.94	29.61	5.34
I_b,int, Bicycle LOS Score for Intersection	1.560	2.444	3.619
Bicycle LOS	A	B	D

Sequence

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



Intersection Level Of Service Report
Intersection 103: Cherry Valley Blvd at East Project Dwy

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.217

Intersection Setup

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Approach												
Lane Configuration	↶			↷			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.0
Speed [mph]	30.00			30.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	0	0	0	0	0	0	504	0	0	959	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	128	0	0	0	0	18	148	0	219	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	128	0	0	0	0	522	148	0	1178	0
Peak Hour Factor	0.920	0.920	0.920	0.950	0.920	0.950	0.950	0.950	0.920	0.920	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	35	0	0	0	0	137	40	0	310	0
Total Analysis Volume [veh/h]	0	0	139	0	0	0	0	549	161	0	1240	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	12.16	0.00	0.00	13.36	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			B			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	20.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.16		13.36		0.00		0.00					
Approach LOS	B		B		A		A					
d_I, Intersection Delay [s/veh]	0.81											
Intersection LOS	B											

Beaumont Summit Station

Vistro File: \\...\\Cherry Valley Base PM.vistro

Scenario 6 HY WP PM

Report File: \\...\\8 HY WP PM.pdf

1/31/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	I-10 EB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	SB Right	3.432	643.3	F
2	I-10 WB Ramps at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	2.225	422.0	F
3	Calimesa Blvd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	SB Left	6.883	3,150.6	F
4	Hannon Rd at Cherry Valley Blvd	Two-way stop	HCM 6th Edition	NB Left	1.419	334.0	F
5	Union St at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.733	235.1	F
6	Nancy Ave at Cherry Valley Blvd	All-way stop	HCM 6th Edition	EB Thru	1.414	127.3	F
7	Beaumont Ave at Cherry Valley Blvd	Signalized	HCM 6th Edition	WB Left	0.704	35.0	C
8	Hannon Rd at Brookside Ave	Two-way stop	HCM 6th Edition	SB Left	0.092	15.7	C
9	Union St at Brookside Ave	Two-way stop	HCM 6th Edition	SB Thru	0.006	13.1	B
10	Oak View Dr at Brookside Ave	All-way stop	HCM 6th Edition	EB Thru	0.505	11.6	B
11	Beaumont Ave at Brookside Ave	Signalized	HCM 6th Edition	NB Thru	0.913	79.7	E
12	Desert Lawn Dr at Oak Valley Pkwy	All-way stop	HCM 6th Edition	EB Thru	1.956	166.8	F
13	I-10 SB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	SB Left	2.263	1,058.5	F
14	I-10 NB Ramps at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	2.065	592.9	F
15	Oak View Dr at Oak Valley Pkwy	Signalized	HCM 6th Edition	EB Thru	1.235	125.5	F
16	Beaumont Ave at Oak Valley Pkwy	Signalized	HCM 6th Edition	NB Right	1.889	395.8	F
101	Cherry Valley Blvd at West Project Dwy	Signalized	HCM 6th Edition	WB Left	0.666	7.6	A
	Cherry Valley Blvd at Middle		HCM 6th				

102	Cherry Valley Blvd at Middle Project Dwy	Signalized	HCM 6th Edition	NB Left	0.496	11.4	B
103	Cherry Valley Blvd at East Project Dwy	Two-way stop	HCM 6th Edition	NB Right	0.288	16.1	C

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

Intersection Level Of Service Report
Intersection 1: I-10 EB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	643.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	3.432

Intersection Setup

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration				+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	1	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			65.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 EB Ramps			I-10 EB Ramps			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	0	0	0	546	7	1088	0	816	513	152	783	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	114	0	0	0	15	0	98	19	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	660	7	1088	0	831	513	250	802	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	174	2	286	0	219	135	66	211	0
Total Analysis Volume [veh/h]	0	0	0	695	7	1145	0	875	540	263	844	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]		1847	1415	1107
Degree of Utilization, x		3.43	1.75	1.45

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]		167.72	82.34	51.36
95th-Percentile Queue Length [ft]		4193.10	2058.38	1283.88
Approach Delay [s/veh]	0.00	1113.23	355.72	226.63
Approach LOS	A	F	F	F
Intersection Delay [s/veh]	643.25			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 2: I-10 WB Ramps at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	422.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.225

Intersection Setup

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	⊕						⊖			⊖		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	65.00			30.00			35.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	I-10 WB Ramps						Cherry Valley Blvd			Cherry Valley Blvd		
	Base Volume Input [veh/h]	684	9	227	0	0	0	713	752	0	0	258
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	2.00	2.00	2.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	64	0	0	0	0	129	0	0	117	168
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	684	9	291	0	0	0	713	881	0	0	375	616
Peak Hour Factor	0.950	0.950	0.950	1.000	1.000	1.000	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	180	2	77	0	0	0	188	232	0	0	99	162
Total Analysis Volume [veh/h]	720	9	306	0	0	0	751	927	0	0	395	648
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	1035		1678	1043
Degree of Utilization, x	2.00		2.23	1.25

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	70.13		120.69	36.69
95th-Percentile Queue Length [ft]	1753.17		3017.35	917.34
Approach Delay [s/veh]	472.13	0.00	567.56	138.13
Approach LOS	F	A	F	F
Intersection Delay [s/veh]	422.02			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 3: Calimesa Blvd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	3,150.6
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	6.883

Intersection Setup

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	T		↑		↑	
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]	50.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Calimesa Blvd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	114	121	159	818	529	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	193	285	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	121	159	1011	814	132
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]	30	32	42	266	214	35
Total Analysis Volume [veh/h]	120	127	167	1064	857	139
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	6.88	0.39	0.24	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	3150.65	2955.14	11.71	0.00	0.00	0.00
Movement LOS	F	F	B	A	A	A
95th-Percentile Queue Length [veh/ln]	29.74	29.74	0.92	0.92	0.00	0.00
95th-Percentile Queue Length [ft/ln]	743.55	743.55	23.07	23.07	0.00	0.00
d_A, Approach Delay [s/veh]	3050.12		1.59		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	305.31					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 4: Hannon Rd at Cherry Valley Blvd

Control Type:	Two-way stop	Delay (sec / veh):	334.0
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.419

Intersection Setup

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration	T		T		T	
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]	35.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Hannon Rd		Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	100	3	795	86	0	579
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	171	19	0	139
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]	115	3	966	105	0	718
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]	30	1	254	28	0	189
Total Analysis Volume [veh/h]	121	3	1017	111	0	756
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	1.42	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	334.01	305.11	0.00	0.00	10.74	0.00
Movement LOS	F	F	A	A	B	A
95th-Percentile Queue Length [veh/ln]	9.54	9.54	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	238.45	238.45	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	333.32		0.00		0.00	
Approach LOS	F		A		A	
d_I, Intersection Delay [s/veh]	20.58					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 5: Union St at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	235.1
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.733

Intersection Setup

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	30	6	4	6	9	37	77	852	28	13	600	6
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	30	0	0	0	0	0	0	133	38	0	109	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]	60	6	4	6	9	37	77	985	66	13	709	6
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	16	2	1	2	2	10	20	259	17	3	187	2
Total Analysis Volume [veh/h]	63	6	4	6	9	39	81	1037	69	14	746	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	487	517	1187	766
Degree of Utilization, x	0.15	0.10	1.73	1.12

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.52	0.35	69.17	22.95
95th-Percentile Queue Length [ft]	13.09	8.69	1729.30	573.84
Approach Delay [s/veh]	11.69	10.77	349.91	94.31
Approach LOS	B	B	F	F
Intersection Delay [s/veh]	235.10			
Intersection LOS	F			

Intersection Level Of Service Report
Intersection 6: Nancy Ave at Cherry Valley Blvd

Control Type:	All-way stop	Delay (sec / veh):	127.3
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.414

Intersection Setup

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Approach	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Lane Configuration	+			+			+ +			+ +		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Northbound			Nancy Ave Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
Base Volume Input [veh/h]	72	21	8	13	19	21	24	690	63	11	498	9
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	0	0	0	0	0	77	56	0	62	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]	119	21	8	13	19	21	24	767	119	11	560	9
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	31	6	2	3	5	6	6	202	31	3	147	2
Total Analysis Volume [veh/h]	125	22	8	14	20	22	25	807	125	12	589	9
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	489	476	832	666	601	650
Degree of Utilization, x	0.32	0.12	1.41	0.19	1.04	0.01

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.35	0.40	38.54	0.69	16.66	0.04
95th-Percentile Queue Length [ft]	33.74	9.92	963.40	17.15	416.39	1.05
Approach Delay [s/veh]	13.75	11.56	187.27		72.79	
Approach LOS	B	B	F		F	
Intersection Delay [s/veh]	127.33					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 7: Beaumont Ave at Cherry Valley Blvd

Control Type:	Signalized	Delay (sec / veh):	35.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	50.00			35.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Cherry Valley Blvd			Cherry Valley Blvd		
Base Volume Input [veh/h]	276	370	73	26	402	60	75	272	376	55	213	22
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	0	0	0	0	15	19	19	39	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	308	370	73	26	402	75	94	291	415	55	228	22
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	81	97	19	7	106	20	25	77	109	14	60	6
Total Analysis Volume [veh/h]	324	389	77	27	423	79	99	306	437	58	240	23
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	22	36	0	9	23	0	19	36	0	9	26	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	14	0	0	14	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	R	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	41	41	2	26	26	6	27	27	4	24
g / C, Green / Cycle	0.20	0.45	0.45	0.03	0.28	0.28	0.07	0.30	0.30	0.04	0.27
(v / s)_i Volume / Saturation Flow Rate	0.18	0.20	0.05	0.01	0.22	0.05	0.05	0.16	0.27	0.03	0.14
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1871
c, Capacity [veh/h]	357	862	733	50	539	458	130	567	482	77	504
d1, Uniform Delay [s]	35.30	16.89	14.11	43.18	29.69	24.27	41.02	26.42	30.39	42.60	27.96
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.26	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.95	1.71	0.29	8.68	10.91	0.82	8.92	0.80	14.19	13.49	0.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.45	0.11	0.54	0.78	0.17	0.76	0.54	0.91	0.75	0.52
d, Delay for Lane Group [s/veh]	44.25	18.60	14.40	51.87	40.60	25.08	49.94	27.22	44.58	56.09	28.80
Lane Group LOS	D	B	B	D	D	C	D	C	D	E	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.31	5.23	0.86	0.70	9.68	1.33	2.40	5.31	10.41	1.52	4.68
50th-Percentile Queue Length [ft/ln]	182.7	130.7	21.39	17.55	242.0	33.31	60.10	132.7	260.2	38.09	117.09
95th-Percentile Queue Length [veh/ln]	11.74	8.98	1.54	1.26	14.79	2.40	4.33	9.09	15.70	2.74	8.23
95th-Percentile Queue Length [ft/ln]	293.5	224.5	38.51	31.59	369.6	59.96	108.1	227.1	392.5	68.57	205.82

Movement, Approach, & Intersection Results

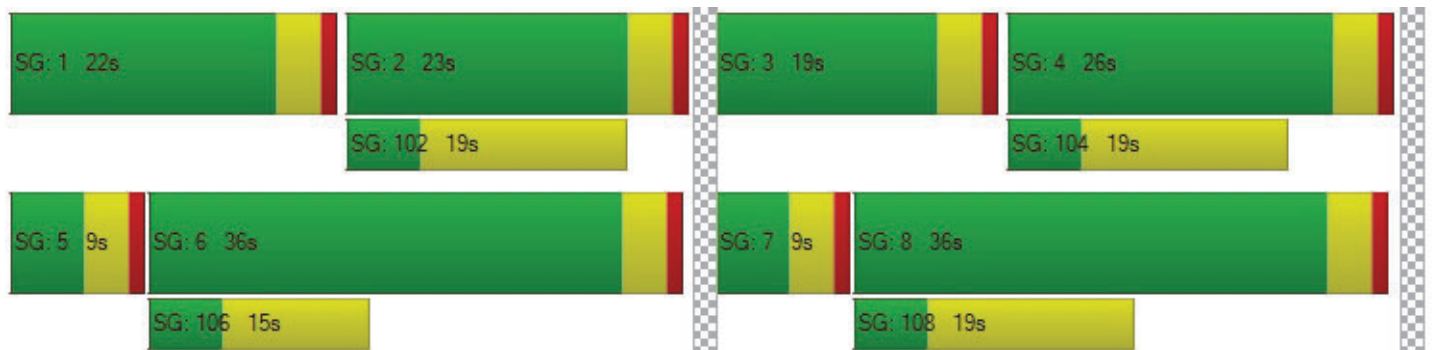
d_M, Delay for Movement [s/veh]	44.25	18.60	14.40	51.87	40.60	25.08	49.94	27.22	44.58	56.09	28.80	28.80
Movement LOS	D	B	B	D	D	C	D	C	D	E	C	C
d_A, Approach Delay [s/veh]	28.71		38.86		38.90		33.73					
Approach LOS	C		D		D		C					
d_I, Intersection Delay [s/veh]	34.98											
Intersection LOS	C											
Intersection V/C	0.704											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.826	2.428	2.615	2.258
Crosswalk LOS	C	B	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	711	422	711	489
d_b, Bicycle Delay [s]	18.69	28.01	18.69	25.69
I_b,int, Bicycle LOS Score for Intersection	2.863	2.432	2.949	2.089
Bicycle LOS	C	B	C	B

Sequence

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



Intersection Level Of Service Report
Intersection 8: Hannon Rd at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Hannon Rd			Hannon Rd			Brookside Ave			Brookside Ave		
Base Volume Input [veh/h]	32	30	35	20	65	20	55	106	25	42	121	26
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	19	0	0	0	0	0	0	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	30	35	39	65	20	55	106	25	42	121	41
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	8	8	9	10	17	5	14	28	7	11	32	11
Total Analysis Volume [veh/h]	34	32	37	41	68	21	58	112	26	44	127	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.07	0.04	0.09	0.15	0.02	0.04	0.00	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	15.23	14.70	10.23	15.70	15.67	11.37	7.64	0.00	0.00	7.55	0.00	0.00
Movement LOS	C	B	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.70	0.70	0.70	1.06	1.06	1.06	0.13	0.00	0.00	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	17.53	17.53	17.53	26.48	26.48	26.48	3.19	0.00	0.00	2.33	0.00	0.00
d_A, Approach Delay [s/veh]	13.27			14.99			2.26			1.55		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	6.36											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 9: Union St at Brookside Ave

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Union St			Union St			Brookside Ave			Brookside 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]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	35.00			35.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Union St			Union St			Brookside Ave			Brookside Ave		
	1	2	10	24	3	22	11	153	2	6	169	32
Base Volume Input [veh/h]	1	2	10	24	3	22	11	153	2	6	169	32
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	38	0	0	0	19	0	0	15	30
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	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]	1	2	10	62	3	22	11	172	2	6	184	62
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	1	3	16	1	6	3	45	1	2	48	16
Total Analysis Volume [veh/h]	1	2	11	65	3	23	12	181	2	6	194	65
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.11	0.01	0.03	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.26	12.52	8.85	12.33	13.13	9.97	7.76	0.00	0.00	7.57	0.00	0.00
Movement LOS	B	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.05	0.51	0.51	0.51	0.03	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.33	1.33	1.33	12.73	12.73	12.73	0.69	0.00	0.00	0.32	0.00	0.00
d_A, Approach Delay [s/veh]	9.55			11.76			0.48			0.17		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	2.38											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 10: Oak View Dr at Brookside Ave

Control Type:	All-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.505

Intersection Setup

Name	Oak View Dr		Brookside Ave		Brookside Ave	
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	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Oak View Dr		Brookside Ave		Brookside Ave	
Base Volume Input [veh/h]	71	30	153	81	80	169
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	62	0	38	75	0	30
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	133	30	191	156	80	199
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]	35	8	50	41	21	52
Total Analysis Volume [veh/h]	140	32	201	164	84	209
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	544	665	723	605	661
Degree of Utilization, x	0.26	0.05	0.50	0.14	0.32

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.02	0.15	2.87	0.48	1.36
95th-Percentile Queue Length [ft]	25.50	3.78	71.85	12.01	33.90
Approach Delay [s/veh]	11.00		12.95	10.35	
Approach LOS	B		B	B	
Intersection Delay [s/veh]	11.63				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 11: Beaumont Ave at Brookside Ave

Control Type:	Signalized	Delay (sec / veh):	79.7
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.913

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			50.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Brookside Ave			Brookside Ave		
	62	528	114	308	653	23	43	129	104	70	67	428
Base Volume Input [veh/h]	62	528	114	308	653	23	43	129	104	70	67	428
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	32	0	0	39	0	0	19	19	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
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	77	560	114	308	692	23	43	148	123	70	82	428
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	20	147	30	81	182	6	11	39	32	18	22	113
Total Analysis Volume [veh/h]	81	589	120	324	728	24	45	156	129	74	86	451
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	18	33	0	19	34	0	9	24	0	14	29	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	14	0	0	14	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	L	C	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	29	15	39	3	25	25	5	27
g / C, Green / Cycle	0.06	0.32	0.17	0.43	0.04	0.28	0.28	0.05	0.29
(v / s)_i Volume / Saturation Flow Rate	0.04	0.38	0.18	0.40	0.02	0.08	0.08	0.04	0.32
s, saturation flow rate [veh/h]	1810	1845	1810	1889	1810	1900	1615	1810	1655
c, Capacity [veh/h]	108	598	302	815	68	528	449	97	486
d1, Uniform Delay [s]	41.67	30.42	37.50	24.19	42.72	25.57	25.51	42.00	31.78
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.11	0.11	0.11	0.43
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.09	99.98	47.04	17.60	10.25	0.31	0.35	11.42	69.75
d3, Initial Queue Delay [s]	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
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	1.19	1.07	0.92	0.66	0.30	0.29	0.76	1.10
d, Delay for Lane Group [s/veh]	51.77	130.41	84.54	41.80	52.98	25.88	25.86	53.42	101.53
Lane Group LOS	D	F	F	D	D	C	C	D	F
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.01	28.60	10.11	17.01	1.15	2.54	2.10	1.88	19.26
50th-Percentile Queue Length [ft/ln]	50.34	715.04	252.69	425.35	28.77	63.55	52.58	46.93	481.60
95th-Percentile Queue Length [veh/ln]	3.62	41.52	15.84	23.78	2.07	4.58	3.79	3.38	28.10
95th-Percentile Queue Length [ft/ln]	90.62	1037.90	396.10	594.46	51.79	114.3	94.64	84.47	702.52

Movement, Approach, & Intersection Results

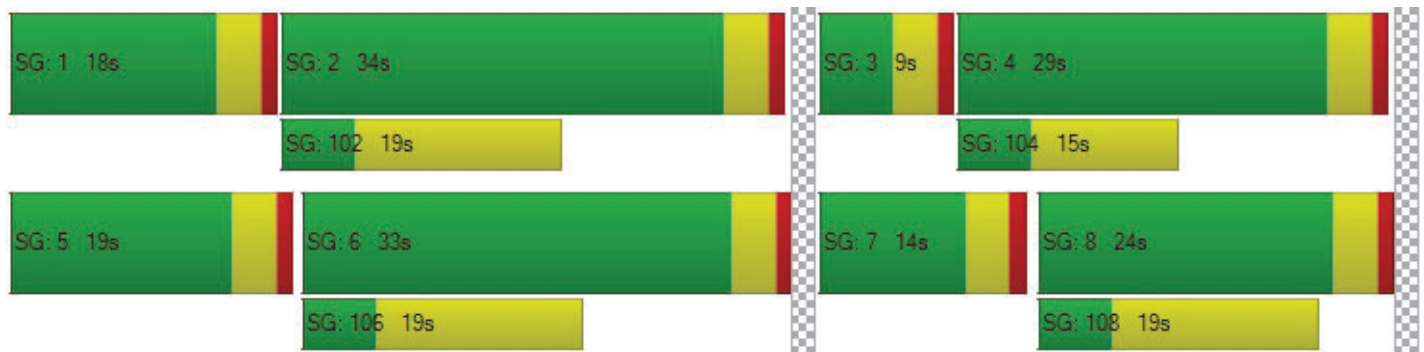
d_M, Delay for Movement [s/veh]	51.77	130.4	130.4	84.54	41.80	41.80	52.98	25.88	25.86	53.42	101.5	101.5
Movement LOS	D	F	F	F	D	D	D	C	C	D	F	F
d_A, Approach Delay [s/veh]	122.34			54.67			29.56			95.70		
Approach LOS	F			D			C			F		
d_I, Intersection Delay [s/veh]	79.69											
Intersection LOS	E											
Intersection V/C	0.913											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.692	3.112	2.302	2.526
Crosswalk LOS	B	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	644	667	444	556
d_b, Bicycle Delay [s]	20.67	20.00	27.22	23.47
I_b,int, Bicycle LOS Score for Intersection	2.863	3.335	2.104	2.568
Bicycle LOS	C	C	B	B

Sequence



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



Intersection Level Of Service Report
Intersection 12: Desert Lawn Dr at Oak Valley Pkwy

Control Type:	All-way stop	Delay (sec / veh):	166.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.956

Intersection Setup

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Desert Lawn Dr		Oak Valley Pkwy		Oak Valley Pkwy	
Base Volume Input [veh/h]	224	188	219	705	740	283
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	15	19	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]	224	188	219	720	759	283
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]	59	49	58	189	200	74
Total Analysis Volume [veh/h]	236	198	231	758	799	298
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	437	367	758	465	465	503
Degree of Utilization, x	0.99	0.63	1.96	0.79	0.79	0.73

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	12.57	4.11	51.81	7.05	7.05	5.96
95th-Percentile Queue Length [ft]	314.16	102.86	1295.13	176.32	176.32	148.98
Approach Delay [s/veh]	70.34	359.52		31.24		
Approach LOS	F	F		D		
Intersection Delay [s/veh]	166.81					
Intersection LOS	F					

Intersection Level Of Service Report
Intersection 13: I-10 SB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	1,058.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.263

Intersection Setup

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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			65.00			50.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			No			No			No		

Volumes

Name				I-10 SB Ramps			Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	0	0	0	1435	9	483	0	661	372	756	858	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	2.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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	34	0	0	15	0	56	19	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]	0	0	0	1435	43	483	0	676	372	812	877	0
Peak Hour Factor	1.000	1.000	1.000	0.950	0.950	0.950	1.000	0.950	0.950	0.950	0.950	1.000
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	0	378	11	127	0	178	98	214	231	0
Total Analysis Volume [veh/h]	0	0	0	1511	45	508	0	712	392	855	923	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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi
Signal Group	0	0	0	0	2	0	0	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	Lead	-	-
Minimum Green [s]	0	0	0	0	10	0	0	10	0	5	10	0
Maximum Green [s]	0	0	0	0	30	0	0	30	0	30	30	0
Amber [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	0	0	0	45	0	0	25	0	20	45	0
Vehicle Extension [s]	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	0	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	0	10	0	0	10	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk					No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0
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		C	C	L	C
C, Cycle Length [s]		90	90	90	90
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		18	30	30	64
g / C, Green / Cycle		0.20	0.33	0.33	0.71
(v / s)_i Volume / Saturation Flow Rate		1.17	0.62	0.47	0.49
s, saturation flow rate [veh/h]		1759	1788	1810	1900
c, Capacity [veh/h]		355	596	601	1348
d1, Uniform Delay [s]		35.93	30.01	30.06	7.38
k, delay calibration		0.50	0.50	0.50	0.50
l, Upstream Filtering Factor		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		2175.79	390.43	200.11	2.84
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		5.82	1.85	1.42	0.68
d, Delay for Lane Group [s/veh]		2211.72	420.44	230.17	10.22
Lane Group LOS		F	F	F	B
Critical Lane Group		Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]		221.17	76.11	45.19	7.66
50th-Percentile Queue Length [ft/ln]		5529.19	1902.71	1129.65	191.58
95th-Percentile Queue Length [veh/ln]		333.52	119.70	68.34	12.20
95th-Percentile Queue Length [ft/ln]		8337.99	2992.58	1708.43	305.08

Movement, Approach, & Intersection Results

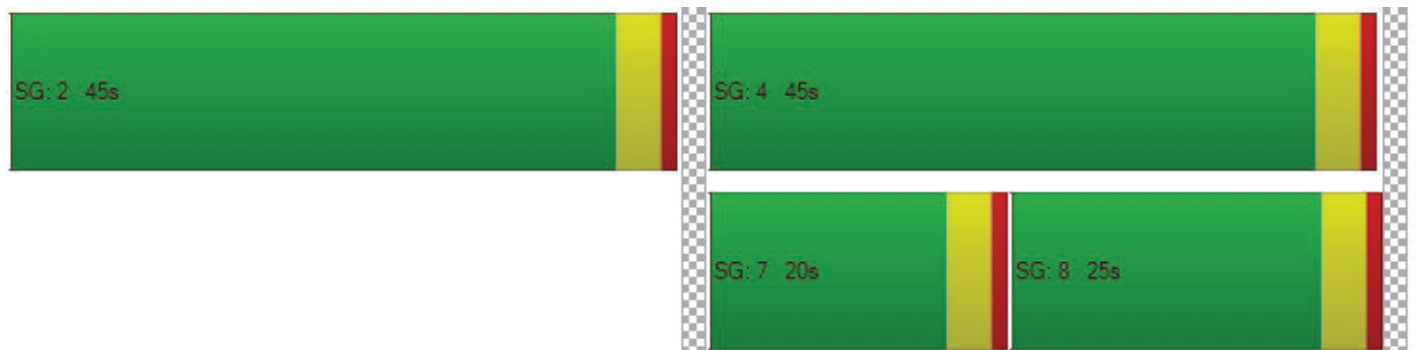
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	2211.	2211.	2211.	0.00	420.4	420.4	230.1	10.22	0.00
Movement LOS				F	F	F		F	F	F	B	
d_A, Approach Delay [s/veh]	0.00			2211.72			420.44			115.99		
Approach LOS	A			F			F			F		
d_I, Intersection Delay [s/veh]	1058.51											
Intersection LOS	F											
Intersection V/C	2.263											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	911	467	911
d_b, Bicycle Delay [s]	45.00	13.34	26.45	13.34
I_b,int, Bicycle LOS Score for Intersection	4.132	4.965	3.381	4.493
Bicycle LOS	D	E	C	E

Sequence

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



Intersection Level Of Service Report
Intersection 14: I-10 NB Ramps at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	592.9
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	2.065

Intersection Setup

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
	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]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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]	65.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			No			No			No		

Volumes

Name	I-10 NB Ramps						Oak Valley Pkwy			Oak Valley Pkwy		
Base Volume Input [veh/h]	594	8	1129	0	0	0	343	1698	0	0	1020	963
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	47	0	0	0	0	15	0	0	75	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]	594	8	1176	0	0	0	343	1713	0	0	1095	963
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	1.000	1.000	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	156	2	309	0	0	0	90	451	0	0	288	253
Total Analysis Volume [veh/h]	625	8	1238	0	0	0	361	1803	0	0	1153	1014
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Permi	Permi	Permi	Permi	Permi	Permi	Protec	Permi	Permi	Permi	Permi	Permi
Signal Group	0	6	0	0	0	0	3	8	0	0	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	5	10	0	0	10	0
Maximum Green [s]	0	30	0	0	0	0	30	30	0	0	30	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	49	0	0	0	0	12	41	0	0	29	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	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	7	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	0.0	2.0	0.0
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	C	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	28	20	54	30	30
g / C, Green / Cycle	0.31	0.22	0.60	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	1.12	0.20	0.95	0.61	0.63
s, saturation flow rate [veh/h]	1676	1810	1900	1900	1615
c, Capacity [veh/h]	523	401	1139	633	538
d1, Uniform Delay [s]	30.97	34.06	18.03	30.00	30.00
k, delay calibration	0.50	0.16	0.50	0.50	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1165.71	10.28	266.74	375.60	404.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	3.58	0.90	1.58	1.82	1.88
d, Delay for Lane Group [s/veh]	1196.68	44.34	284.77	405.60	434.79
Lane Group LOS	F	D	F	F	F
Critical Lane Group	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	178.92	8.61	104.57	79.15	71.65
50th-Percentile Queue Length [ft/ln]	4473.05	215.20	2614.16	1978.87	1791.14
95th-Percentile Queue Length [veh/ln]	282.58	13.42	162.45	123.76	113.46
95th-Percentile Queue Length [ft/ln]	7064.59	335.50	4061.21	3093.88	2836.57

Movement, Approach, & Intersection Results

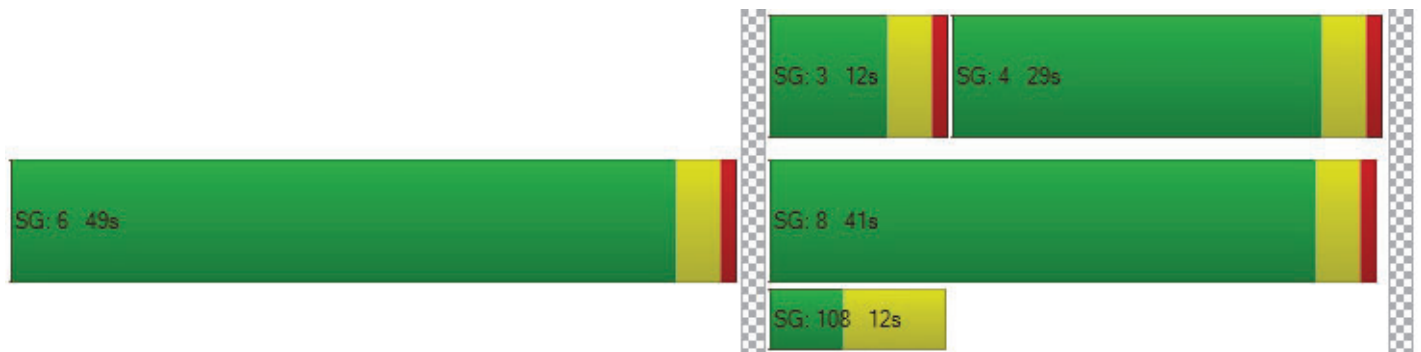
d_M, Delay for Movement [s/veh]	1196.	1196.	1196.	0.00	0.00	0.00	44.34	284.7	0.00	0.00	405.6	434.7
Movement LOS	F	F	F				D	F			F	F
d_A, Approach Delay [s/veh]	1196.68			0.00			244.66			419.26		
Approach LOS	F			A			F			F		
d_I, Intersection Delay [s/veh]	592.87											
Intersection LOS	F											
Intersection V/C	2.065											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersection	3.693	0.000	0.000	0.000
Crosswalk LOS	D	F	F	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1000	0	822	556
d_b, Bicycle Delay [s]	11.25	45.00	15.61	23.47
I_b,int, Bicycle LOS Score for Intersection	4.647	4.132	5.130	5.135
Bicycle LOS	E	D	F	F

Sequence

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



Intersection Level Of Service Report
Intersection 15: Oak View Dr at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	125.5
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.235

Intersection Setup

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pkwy	
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	1	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	35.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Oak View Dr		Oak Valley Pkwy		Oak Valley Pwky	
Base Volume Input [veh/h]	112	158	216	1955	1224	149
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	75	62	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]	112	233	278	1955	1224	149
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]	29	61	73	514	322	39
Total Analysis Volume [veh/h]	118	245	293	2058	1288	157
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Protected	Permissive	Permissive	Permissive
Signal Group	7	0	5	2	6	0
Auxiliary Signal Groups						
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	5	0	5	10	10	0
Maximum Green [s]	30	0	30	30	30	0
Amber [s]	3.0	0.0	3.0	3.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	1.0	0.0
Split [s]	23	0	37	67	30	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	14	0	0	10	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	0.0
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
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	L	C	C	R
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	17	66	46	46
g / C, Green / Cycle	0.17	0.17	0.19	0.74	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.07	0.15	0.16	1.08	0.36	0.10
s, saturation flow rate [veh/h]	1810	1615	1810	1900	3618	1615
c, Capacity [veh/h]	315	281	338	1400	1829	817
d1, Uniform Delay [s]	32.83	36.17	35.51	11.84	17.08	12.18
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.74	8.17	6.73	215.40	2.30	0.52
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	0.37	0.87	0.87	1.47	0.70	0.19
d, Delay for Lane Group [s/veh]	33.56	44.34	42.24	227.24	19.38	12.71
Lane Group LOS	C	D	D	F	B	B
Critical Lane Group	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.28	5.70	6.50	99.79	9.36	1.65
50th-Percentile Queue Length [ft/ln]	56.95	142.58	162.43	2494.73	234.11	41.14
95th-Percentile Queue Length [veh/ln]	4.10	9.62	10.68	153.32	14.38	2.96
95th-Percentile Queue Length [ft/ln]	102.52	240.49	266.94	3832.90	359.58	74.05

Movement, Approach, & Intersection Results

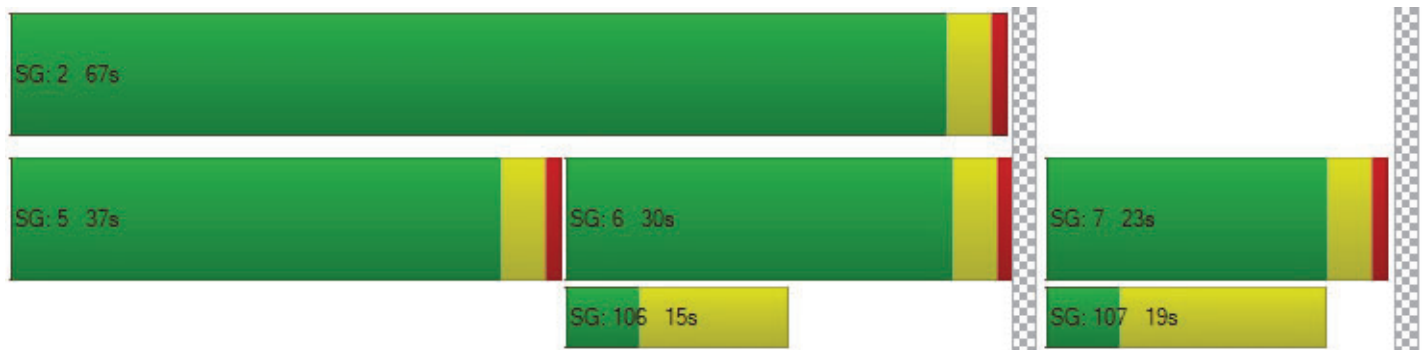
d_M, Delay for Movement [s/veh]	33.56	44.34	42.24	227.24	19.38	12.71
Movement LOS	C	D	D	F	B	B
d_A, Approach Delay [s/veh]	40.84		204.19		18.65	
Approach LOS	D		F		B	
d_I, Intersection Delay [s/veh]	125.47					
Intersection LOS	F					
Intersection V/C	1.235					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.250	3.553	0.000
Crosswalk LOS	B	D	F
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	1400	578
d_b, Bicycle Delay [s]	28.01	4.05	22.76
I_b,int, Bicycle LOS Score for Intersection	1.560	5.439	2.752
Bicycle LOS	A	F	C

Sequence

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



Intersection Level Of Service Report
Intersection 16: Beaumont Ave at Oak Valley Pkwy

Control Type:	Signalized	Delay (sec / veh):	395.8
Analysis Method:	HCM 6th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.889

Intersection Setup

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pkwy			Oak Valley Pkwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T T			T T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	1	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			45.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Beaumont Ave			Beaumont Ave			Oak Valley Pwky			Oak Valley Pwky		
Base Volume Input [veh/h]	172	452	1243	436	318	319	412	1071	157	794	846	299
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	32	0	19	39	0	0	0	0	0	0	15
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	172	484	1243	455	357	319	412	1071	157	794	846	314
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	45	127	327	120	94	84	108	282	41	209	223	83
Total Analysis Volume [veh/h]	181	509	1308	479	376	336	434	1127	165	836	891	331
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 major street [ped/h]	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi	Protec	Permi	Permi
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	15	31	0	13	29	0	17	26	0	20	29	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	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	17	0	0	17	0	0	17	0	0	17	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
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	C	L	C	C	L	C	C	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
I1_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
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	27	27	9	25	25	13	22	22	16	25	25
g / C, Green / Cycle	0.12	0.30	0.30	0.10	0.28	0.28	0.14	0.24	0.24	0.18	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.10	0.27	0.81	0.26	0.20	0.21	0.24	0.34	0.35	0.46	0.32	0.35
s, saturation flow rate [veh/h]	1810	1900	1615	1810	1900	1615	1810	1900	1817	1810	1900	1734
c, Capacity [veh/h]	216	570	485	181	533	453	261	464	444	322	528	482
d1, Uniform Delay [s]	38.76	30.12	31.50	40.50	29.05	29.42	38.50	34.00	34.00	37.00	32.50	32.50
k, delay calibration	0.11	0.50	0.50	0.30	0.50	0.50	0.24	0.47	0.49	0.50	0.43	0.49
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.26	18.92	770.7	750.6	7.66	10.48	305.4	193.5	210.7	728.4	88.10	136.2
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.89	2.70	2.65	0.71	0.74	1.66	1.40	1.44	2.60	1.16	1.27
d, Delay for Lane Group [s/veh]	47.02	49.04	802.2	791.1	36.71	39.90	343.9	227.5	244.7	765.4	120.6	168.7
Lane Group LOS	D	D	F	F	D	D	F	F	F	F	F	F
Critical Lane Group	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.25	12.84	113.5	41.58	8.00	7.53	27.62	34.39	35.02	71.92	23.84	28.19
50th-Percentile Queue Length [ft/ln]	106.3	321.0	2838.	1039.	199.9	188.2	690.5	859.6	875.4	1797.	595.9	704.8
95th-Percentile Queue Length [veh/ln]	7.64	18.72	180.8	64.81	12.64	12.03	43.47	52.09	53.43	112.1	34.70	42.09
95th-Percentile Queue Length [ft/ln]	190.9	467.9	4520.	1620.	315.8	300.7	1086.	1302.	1335.	2804.	867.4	1052.

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	47.02	49.04	802.2	791.1	36.71	39.90	343.9	234.7	244.7	765.4	135.7	168.7
Movement LOS	D	D	F	F	D	D	F	F	F	F	F	F
d_A, Approach Delay [s/veh]	541.93			341.04			263.19			396.82		
Approach LOS	F			F			F			F		
d_I, Intersection Delay [s/veh]	395.79											
Intersection LOS	F											
Intersection V/C	1.889											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	3.179	2.942	3.218	3.432
Crosswalk LOS	C	C	C	C
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	556	489	556
d_b, Bicycle Delay [s]	22.05	23.47	25.69	23.47
I_b,int, Bicycle LOS Score for Intersection	3.208	2.542	2.984	3.257
Bicycle LOS	C	B	C	C

Sequence




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



Intersection Level Of Service Report
Intersection 101: Cherry Valley Blvd at West Project Dwy

Control Type:	Signalized	Delay (sec / veh):	7.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.666

Intersection Setup

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

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	932	0	0	661
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	66	0	167	26	4	219
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]	66	0	1099	26	4	880
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]	17	0	289	7	1	232
Total Analysis Volume [veh/h]	69	0	1157	27	4	926
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	19	0	62	0	9	71
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	10	0	7	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	C	C	L	C
C, Cycle Length [s]	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	73	0	77
g / C, Green / Cycle	0.05	0.81	0.01	0.86
(v / s)_i Volume / Saturation Flow Rate	0.04	0.63	0.00	0.49
s, saturation flow rate [veh/h]	1810	1892	1810	1900
c, Capacity [veh/h]	91	1534	10	1635
d1, Uniform Delay [s]	42.17	4.32	44.59	1.71
k, delay calibration	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.81	3.83	22.30	1.43
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	0.75	0.77	0.39	0.57
d, Delay for Lane Group [s/veh]	53.99	8.15	66.89	3.13
Lane Group LOS	D	A	E	A
Critical Lane Group	Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.80	7.45	0.15	1.72
50th-Percentile Queue Length [ft/ln]	44.91	186.32	3.79	42.94
95th-Percentile Queue Length [veh/ln]	3.23	11.93	0.27	3.09
95th-Percentile Queue Length [ft/ln]	80.84	298.24	6.83	77.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.99	53.99	8.15	8.15	66.89	3.13
Movement LOS	D	D	A	A	E	A
d_A, Approach Delay [s/veh]	53.99		8.15		3.41	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	7.58					
Intersection LOS	A					
Intersection V/C	0.666					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	1.765	2.779	2.641
Crosswalk LOS	A	C	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	1289	1489
d_b, Bicycle Delay [s]	31.25	5.69	2.94
I_b,int, Bicycle LOS Score for Intersection	1.673	3.513	3.094
Bicycle LOS	A	D	C

Sequence

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



Intersection Level Of Service Report
Intersection 102: Cherry Valley Blvd at Middle Project Dwy

Control Type:	Signalized	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.496

Intersection Setup

Name	Cherry Valley Blvd		Cherry Valley Blvd			
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	1	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	1
Exit Pocket Length [ft]	0.00	0.00	0.00	100.00	0.00	100.00
Speed [mph]	30.00		55.00		30.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name			Cherry Valley Blvd		Cherry Valley Blvd	
Base Volume Input [veh/h]	0	0	932	0	0	661
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	219	66	125	42	150	4
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]	219	66	1057	42	150	665
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]	58	17	278	11	39	175
Total Analysis Volume [veh/h]	231	69	1113	44	158	700
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 major street [ped/h]	0		0		0	
v_di, Inbound Pedestrian Volume crossing major street [ped/h]	0		0		0	
v_co, Outbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ci, Inbound Pedestrian Volume crossing minor street [ped/h]	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Semi-actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	ProtPerm	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	5	0	10	0	5	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	26	0	55	0	9	64
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	17	0	10	0	0	10
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
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
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	R	L	C
C, Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
I1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
I2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00	2.00
g_i, Effective Green Time [s]	14	14	59	59	68	68
g / C, Green / Cycle	0.15	0.15	0.66	0.66	0.76	0.76
(v / s)_i Volume / Saturation Flow Rate	0.13	0.04	0.31	0.03	0.25	0.37
s, saturation flow rate [veh/h]	1810	1615	3618	1615	627	1900
c, Capacity [veh/h]	277	247	2384	1064	515	1440
d1, Uniform Delay [s]	37.00	33.72	7.55	5.38	4.65	4.17
k, delay calibration	0.11	0.11	0.50	0.50	0.27	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.49	0.61	0.66	0.07	0.84	1.18
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	0.83	0.28	0.47	0.04	0.31	0.49
d, Delay for Lane Group [s/veh]	43.49	34.33	8.21	5.45	5.49	5.35
Lane Group LOS	D	C	A	A	A	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.35	1.36	3.82	0.22	0.66	3.96
50th-Percentile Queue Length [ft/ln]	133.69	34.04	95.54	5.61	16.62	98.92
95th-Percentile Queue Length [veh/ln]	9.14	2.45	6.88	0.40	1.20	7.12
95th-Percentile Queue Length [ft/ln]	228.50	61.26	171.96	10.09	29.91	178.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.49	34.33	8.21	5.45	5.49	5.35
Movement LOS	D	C	A	A	A	A
d_A, Approach Delay [s/veh]	41.38		8.11		5.37	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	11.41					
Intersection LOS	B					
Intersection V/C	0.496					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft ² /ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft ² /ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersection	2.258	3.048	2.699
Crosswalk LOS	B	C	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	1133	1333
d_b, Bicycle Delay [s]	25.69	8.45	5.00
I_b,int, Bicycle LOS Score for Intersection	1.560	2.514	2.975
Bicycle LOS	A	B	C

Sequence

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



Intersection Level Of Service Report
Intersection 103: Cherry Valley Blvd at East Project Dwy

Control Type:	Two-way stop	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.288

Intersection Setup

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Approach												
Lane Configuration	↶			↷			↶↷			↶↷		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.0
Speed [mph]	30.00			30.00			55.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Northbound			Southbound			Cherry Valley Blvd Eastbound			Cherry Valley Blvd Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Base Volume Input [veh/h]	0	0	0	0	0	0	0	932	0	0	661	0
Base Volume Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	124	0	0	0	0	66	125	0	154	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	124	0	0	0	0	998	125	0	815	0
Peak Hour Factor	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Other Adjustment Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Total 15-Minute Volume [veh/h]	0	0	33	0	0	0	0	263	33	0	214	0
Total Analysis Volume [veh/h]	0	0	131	0	0	0	0	1051	132	0	858	0
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

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

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	16.09	0.00	0.00	11.21	0.00	0.00	0.00	0.00	0.00	0.00
Movement LOS			C			B		A	A		A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	29.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.09		11.21		0.00		0.00					
Approach LOS	C		B		A		A					
d_I, Intersection Delay [s/veh]	0.97											
Intersection LOS	C											

APPENDIX E

SBTAM MODEL PLOTS AND B-TURNS WORKSHEETS

Intersection: I-10 EB Ramps Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		307
SOUTH BOUND	LEFT	137	NORTH LEG		
	THRU	0	IN ...		503
	RIGHT	315	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	696	IN ...		1,191
	RIGHT	211	OUT ...		544
WEST BOUND	LEFT	24	EAST LEG		
	THRU	149	IN ...		239
	RIGHT	0	OUT ...		1,082
		1,532			3,865

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	137	162
	THRU	0	0
	RIGHT	315	341
EAST BOUND	LEFT	0	0
	THRU	696	920
	RIGHT	211	272
WEST BOUND	LEFT	24	35
	THRU	149	203
	RIGHT	0	0
		1,532	1,933

Intersection: I-10 EB Ramps Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		177
SOUTH BOUND	LEFT	288	NORTH LEG		
	THRU	4	IN ...		1,423
	RIGHT	542	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	393	IN ...		605
	RIGHT	125	OUT ...		1,269
WEST BOUND	LEFT	24	EAST LEG		
	THRU	270	IN ...		437
	RIGHT	0	OUT ...		1,019
		1,646			4,930

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	288	546
	THRU	4	7
	RIGHT	542	870
EAST BOUND	LEFT	0	0
	THRU	393	473
	RIGHT	125	133
WEST BOUND	LEFT	24	37
	THRU	270	400
	RIGHT	0	0
		1,646	2,465

Intersection: I-10 WB Ramps Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	91	SOUTH LEG		
	THRU	1	IN ...		409
	RIGHT	22	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		1,508
EAST BOUND	LEFT	692	WEST LEG		
	THRU	156	IN ...		1,097
	RIGHT	0	OUT ...		212
WEST BOUND	LEFT	0	EAST LEG		
	THRU	55	IN ...		766
	RIGHT	442	OUT ...		551
		1,459			4,544

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	91	179
	THRU	1	5
	RIGHT	22	224
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	692	770
	THRU	156	327
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	55	33
	RIGHT	442	733
		1,459	2,272

Intersection: I-10 WB Ramps Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	181	SOUTH LEG		
	THRU	4	IN ...		418
	RIGHT	22	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		727
EAST BOUND	LEFT	304	WEST LEG		
	THRU	378	IN ...		1,020
	RIGHT	0	OUT ...		443
WEST BOUND	LEFT	0	EAST LEG		
	THRU	119	IN ...		597
	RIGHT	255	OUT ...		865
		1,263			4,069

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	181	295
	THRU	4	9
	RIGHT	22	113
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	304	270
	THRU	378	752
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	119	148
	RIGHT	255	448
		1,263	2,035

Intersection: Calimesa Boulevard Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	42	NORTH LEG		
	THRU	0	IN ...		77
	RIGHT	25	OUT ...		296
EAST BOUND	LEFT	30	WEST LEG		
	THRU	166	IN ...		569
	RIGHT	0	OUT ...		772
WEST BOUND	LEFT	0	EAST LEG		
	THRU	478	IN ...		924
	RIGHT	58	OUT ...		504
		799			3,142

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	42	53
	THRU	0	0
	RIGHT	25	25
EAST BOUND	LEFT	30	123
	THRU	166	451
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	478	747
	RIGHT	58	173
		799	1,572

Intersection: Calimesa Boulevard Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	74	NORTH LEG		
	THRU	0	IN ...		166
	RIGHT	49	OUT ...		208
EAST BOUND	LEFT	41	WEST LEG		
	THRU	382	IN ...		888
	RIGHT	0	OUT ...		579
WEST BOUND	LEFT	0	EAST LEG		
	THRU	307	IN ...		665
	RIGHT	62	OUT ...		932
		915			3,438

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	74	114
	THRU	0	0
	RIGHT	49	53
EAST BOUND	LEFT	41	76
	THRU	382	818
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	307	526
	RIGHT	62	132
		915	1,719

Intersection: Hannon Road Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	70	SOUTH LEG		
	THRU	0	IN ...		201
	RIGHT	0	OUT ...		42
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		(21)
	RIGHT	0	OUT ...		8
EAST BOUND	LEFT	0	WEST LEG		
	THRU	176	IN ...		339
	RIGHT	13	OUT ...		951
WEST BOUND	LEFT	0	EAST LEG		
	THRU	470	IN ...		785
	RIGHT	0	OUT ...		304
		729			2,608

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	70	194
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	176	304
	RIGHT	13	42
WEST BOUND	LEFT	0	0
	THRU	470	757
	RIGHT	0	0
		729	1,296

Intersection: Hannon Road Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	39	SOUTH LEG		
	THRU	0	IN ...		104
	RIGHT	1	OUT ...		86
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		11
	RIGHT	0	OUT ...		6
EAST BOUND	LEFT	0	WEST LEG		
	THRU	416	IN ...		868
	RIGHT	38	OUT ...		679
WEST BOUND	LEFT	0	EAST LEG		
	THRU	312	IN ...		586
	RIGHT	0	OUT ...		799
		806			3,139

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	39	100
	THRU	0	0
	RIGHT	1	3
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	416	795
	RIGHT	38	86
WEST BOUND	LEFT	0	0
	THRU	312	579
	RIGHT	0	0
		806	1,564

Intersection: Union Street Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	50	SOUTH LEG		
	THRU	1	IN ...		73
	RIGHT	1	OUT ...		20
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	3	IN ...		119
	RIGHT	96	OUT ...		37
EAST BOUND	LEFT	24	WEST LEG		
	THRU	139	IN ...		372
	RIGHT	12	OUT ...		882
WEST BOUND	LEFT	1	EAST LEG		
	THRU	315	IN ...		744
	RIGHT	1	OUT ...		371
		643			2,618

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	50	65
	THRU	1	2
	RIGHT	1	4
SOUTH BOUND	LEFT	0	0
	THRU	3	5
	RIGHT	96	110
EAST BOUND	LEFT	24	31
	THRU	139	366
	RIGHT	12	12
WEST BOUND	LEFT	1	3
	THRU	315	707
	RIGHT	1	4
		643	1,309

Intersection: Union Street Cherry Valley Boulevard
Condition: 2040 Build-out
Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	18	SOUTH LEG		
	THRU	3	IN ...		42
	RIGHT	1	OUT ...		49
SOUTH BOUND	LEFT	2	NORTH LEG		
	THRU	4	IN ...		54
	RIGHT	31	OUT ...		89
EAST BOUND	LEFT	61	WEST LEG		
	THRU	341	IN ...		919
	RIGHT	15	OUT ...		667
WEST BOUND	LEFT	3	EAST LEG		
	THRU	261	IN ...		652
	RIGHT	2	OUT ...		862
		742			3,333

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	18	30
	THRU	3	6
	RIGHT	1	4
SOUTH BOUND	LEFT	2	6
	THRU	4	9
	RIGHT	31	37
EAST BOUND	LEFT	61	77
	THRU	341	852
	RIGHT	15	28
WEST BOUND	LEFT	3	13
	THRU	261	600
	RIGHT	2	6
		742	1,667

Intersection: Nancy Avenue Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	17	SOUTH LEG		
	THRU	18	IN ...		40
	RIGHT	4	OUT ...		91
SOUTH BOUND	LEFT	5	NORTH LEG		
	THRU	24	IN ...		84
	RIGHT	34	OUT ...		40
EAST BOUND	LEFT	16	WEST LEG		
	THRU	94	IN ...		312
	RIGHT	41	OUT ...		681
WEST BOUND	LEFT	3	EAST LEG		
	THRU	308	IN ...		595
	RIGHT	1	OUT ...		220
		565			2,062

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	17	23
	THRU	18	13
	RIGHT	4	4
SOUTH BOUND	LEFT	5	6
	THRU	24	21
	RIGHT	34	58
EAST BOUND	LEFT	16	26
	THRU	94	210
	RIGHT	41	67
WEST BOUND	LEFT	3	3
	THRU	308	600
	RIGHT	1	1
		565	1,031

Intersection: Nancy Avenue Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	33	SOUTH LEG		
	THRU	19	IN ...		70
	RIGHT	6	OUT ...		53
SOUTH BOUND	LEFT	12	NORTH LEG		
	THRU	17	IN ...		43
	RIGHT	18	OUT ...		35
EAST BOUND	LEFT	21	WEST LEG		
	THRU	303	IN ...		747
	RIGHT	25	OUT ...		571
WEST BOUND	LEFT	10	EAST LEG		
	THRU	217	IN ...		510
	RIGHT	8	OUT ...		710
		689			2,739

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	33	52
	THRU	19	10
	RIGHT	6	8
SOUTH BOUND	LEFT	12	12
	THRU	17	10
	RIGHT	18	21
EAST BOUND	LEFT	21	19
	THRU	303	690
	RIGHT	25	32
WEST BOUND	LEFT	10	11
	THRU	217	498
	RIGHT	8	6
		689	1,369

Intersection: Beaumont Avenue/Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	111	SOUTH LEG		
	THRU	198	IN ...		503
	RIGHT	8	OUT ...		435
SOUTH BOUND	LEFT	8	NORTH LEG		
	THRU	224	IN ...		319
	RIGHT	50	OUT ...		269
EAST BOUND	LEFT	41	WEST LEG		
	THRU	50	IN ...		272
	RIGHT	74	OUT ...		547
WEST BOUND	LEFT	8	EAST LEG		
	THRU	81	IN ...		320
	RIGHT	7	OUT ...		163
		860			2,830

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	111	238
	THRU	198	230
	RIGHT	8	33
SOUTH BOUND	LEFT	8	13
	THRU	224	268
	RIGHT	50	41
EAST BOUND	LEFT	41	27
	THRU	50	118
	RIGHT	74	130
WEST BOUND	LEFT	8	38
	THRU	81	268
	RIGHT	7	13
		860	1,415

Intersection: Beaumont Avenue/Cherry Valley Boulevard
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	132	SOUTH LEG		
	THRU	254	IN ...		596
	RIGHT	26	OUT ...		658
SOUTH BOUND	LEFT	16	NORTH LEG		
	THRU	228	IN ...		324
	RIGHT	54	OUT ...		381
EAST BOUND	LEFT	60	WEST LEG		
	THRU	87	IN ...		707
	RIGHT	174	OUT ...		507
WEST BOUND	LEFT	15	EAST LEG		
	THRU	59	IN ...		291
	RIGHT	10	OUT ...		371
		1,115			3,835

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	132	239
	THRU	254	284
	RIGHT	26	73
SOUTH BOUND	LEFT	16	26
	THRU	228	242
	RIGHT	54	56
EAST BOUND	LEFT	60	75
	THRU	87	272
	RIGHT	174	360
WEST BOUND	LEFT	15	55
	THRU	59	213
	RIGHT	10	22
		1,115	1,918

Intersection: Hannon Road Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	4	IN ...		165
	RIGHT	1	OUT ...		37
SOUTH BOUND	LEFT	7	NORTH LEG		
	THRU	1	IN ...		41
	RIGHT	4	OUT ...		199
EAST BOUND	LEFT	59	WEST LEG		
	THRU	65	IN ...		115
	RIGHT	0	OUT ...		60
WEST BOUND	LEFT	1	EAST LEG		
	THRU	48	IN ...		65
	RIGHT	5	OUT ...		90
		195			771

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	4	135
	RIGHT	1	27
SOUTH BOUND	LEFT	7	9
	THRU	1	24
	RIGHT	4	9
EAST BOUND	LEFT	59	60
	THRU	65	54
	RIGHT	0	0
WEST BOUND	LEFT	1	12
	THRU	48	51
	RIGHT	5	4
		195	386

Intersection: Hannon Road Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	3	SOUTH LEG		
	THRU	2	IN ...		98
	RIGHT	5	OUT ...		132
SOUTH BOUND	LEFT	18	NORTH LEG		
	THRU	5	IN ...		89
	RIGHT	18	OUT ...		111
EAST BOUND	LEFT	24	WEST LEG		
	THRU	95	IN ...		180
	RIGHT	1	OUT ...		143
WEST BOUND	LEFT	3	EAST LEG		
	THRU	108	IN ...		164
	RIGHT	21	OUT ...		145
		303			1,062

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	3	32
	THRU	2	30
	RIGHT	5	35
SOUTH BOUND	LEFT	18	10
	THRU	5	65
	RIGHT	18	15
EAST BOUND	LEFT	24	55
	THRU	95	100
	RIGHT	1	25
WEST BOUND	LEFT	3	42
	THRU	108	96
	RIGHT	21	26
		303	531

Intersection: Union Street Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	7	IN ...		11
	RIGHT	4	OUT ...		1
SOUTH BOUND	LEFT	15	NORTH LEG		
	THRU	0	IN ...		22
	RIGHT	3	OUT ...		63
EAST BOUND	LEFT	1	WEST LEG		
	THRU	73	IN ...		130
	RIGHT	0	OUT ...		79
WEST BOUND	LEFT	1	EAST LEG		
	THRU	50	IN ...		115
	RIGHT	34	OUT ...		135
		188			557

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	7	10
	RIGHT	4	2
SOUTH BOUND	LEFT	15	14
	THRU	0	0
	RIGHT	3	8
EAST BOUND	LEFT	1	5
	THRU	73	119
	RIGHT	0	0
WEST BOUND	LEFT	1	1
	THRU	50	71
	RIGHT	34	49
		188	278

Intersection: Union Street Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	1	SOUTH LEG		
	THRU	1	IN ...		11
	RIGHT	9	OUT ...		9
SOUTH BOUND	LEFT	13	NORTH LEG		
	THRU	2	IN ...		49
	RIGHT	7	OUT ...		44
EAST BOUND	LEFT	4	WEST LEG		
	THRU	113	IN ...		169
	RIGHT	2	OUT ...		192
WEST BOUND	LEFT	5	EAST LEG		
	THRU	125	IN ...		201
	RIGHT	19	OUT ...		185
		301			861

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	1	1
	THRU	1	2
	RIGHT	9	8
SOUTH BOUND	LEFT	13	24
	THRU	2	3
	RIGHT	7	22
EAST BOUND	LEFT	4	11
	THRU	113	153
	RIGHT	2	2
WEST BOUND	LEFT	5	3
	THRU	125	169
	RIGHT	19	32
		301	430

Intersection: Oak View Drive Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	41	SOUTH LEG		
	THRU	0	IN ...		118
	RIGHT	66	OUT ...		128
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		15
	RIGHT	0	OUT ...		36
EAST BOUND	LEFT	0	WEST LEG		
	THRU	88	IN ...		189
	RIGHT	59	OUT ...		98
WEST BOUND	LEFT	26	EAST LEG		
	THRU	40	IN ...		114
	RIGHT	0	OUT ...		175
		320			873

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	41	39
	THRU	0	0
	RIGHT	66	73
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	0	0
	THRU	88	102
	RIGHT	59	78
WEST BOUND	LEFT	26	50
	THRU	40	59
	RIGHT	0	0
		320	401

Intersection: Oak View Drive Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	63	SOUTH LEG		
	THRU	0	IN ...		131
	RIGHT	27	OUT ...		164
SOUTH BOUND	LEFT	1	NORTH LEG		
	THRU	0	IN ...		69
	RIGHT	0	OUT ...		38
EAST BOUND	LEFT	1	WEST LEG		
	THRU	67	IN ...		173
	RIGHT	72	OUT ...		239
WEST BOUND	LEFT	71	EAST LEG		
	THRU	129	IN ...		245
	RIGHT	0	OUT ...		178
		431			1,238

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	63	88
	THRU	0	0
	RIGHT	27	43
SOUTH BOUND	LEFT	1	70
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	1	38
	THRU	67	65
	RIGHT	72	70
WEST BOUND	LEFT	71	94
	THRU	129	151
	RIGHT	0	0
		431	619

Intersection: Beaumont Avenue Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	50	SOUTH LEG		
	THRU	280	IN ...		551
	RIGHT	74	OUT ...		555
SOUTH BOUND	LEFT	113	NORTH LEG		
	THRU	290	IN ...		657
	RIGHT	13	OUT ...		597
EAST BOUND	LEFT	27	WEST LEG		
	THRU	71	IN ...		274
	RIGHT	93	OUT ...		151
WEST BOUND	LEFT	60	EAST LEG		
	THRU	43	IN ...		315
	RIGHT	106	OUT ...		493
		1,220			3,593

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	50	62
	THRU	280	376
	RIGHT	74	114
SOUTH BOUND	LEFT	113	250
	THRU	290	384
	RIGHT	13	23
EAST BOUND	LEFT	27	43
	THRU	71	129
	RIGHT	93	101
WEST BOUND	LEFT	60	70
	THRU	43	67
	RIGHT	106	179
		1,220	1,796

Intersection: Beaumont Avenue Brookside Avenue
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	69	SOUTH LEG		
	THRU	197	IN ...		366
	RIGHT	24	OUT ...		460
SOUTH BOUND	LEFT	62	NORTH LEG		
	THRU	234	IN ...		451
	RIGHT	26	OUT ...		517
EAST BOUND	LEFT	3	WEST LEG		
	THRU	37	IN ...		107
	RIGHT	46	OUT ...		212
WEST BOUND	LEFT	53	EAST LEG		
	THRU	69	IN ...		430
	RIGHT	131	OUT ...		166
		951			2,711

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	69	74
	THRU	197	266
	RIGHT	24	28
SOUTH BOUND	LEFT	62	91
	THRU	234	324
	RIGHT	26	35
EAST BOUND	LEFT	3	4
	THRU	37	47
	RIGHT	46	55
WEST BOUND	LEFT	53	80
	THRU	69	103
	RIGHT	131	247
		951	1,355

Intersection: Desert Lawn Drive/Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		1
SOUTH BOUND	LEFT	284	NORTH LEG		
	THRU	0	IN ...		387
	RIGHT	33	OUT ...		231
EAST BOUND	LEFT	21	WEST LEG		
	THRU	253	IN ...		503
	RIGHT	0	OUT ...		729
WEST BOUND	LEFT	1	EAST LEG		
	THRU	211	IN ...		786
	RIGHT	133	OUT ...		715
		936			3,352

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	284	277
	THRU	0	0
	RIGHT	33	105
EAST BOUND	LEFT	21	53
	THRU	253	438
	RIGHT	0	0
WEST BOUND	LEFT	1	1
	THRU	211	625
	RIGHT	133	178
		936	1,676

Intersection: Desert Lawn Drive/Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	200	NORTH LEG		
	THRU	0	IN ...		373
	RIGHT	42	OUT ...		502
EAST BOUND	LEFT	50	WEST LEG		
	THRU	311	IN ...		912
	RIGHT	0	OUT ...		902
WEST BOUND	LEFT	0	EAST LEG		
	THRU	255	IN ...		986
	RIGHT	245	OUT ...		868
		1,103			4,544

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	200	185
	THRU	0	0
	RIGHT	42	188
EAST BOUND	LEFT	50	219
	THRU	311	683
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	255	714
	RIGHT	245	283
		1,103	2,272

Intersection: I-10 SB Ramps Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		613
SOUTH BOUND	LEFT	252	NORTH LEG		
	THRU	7	IN ...		576
	RIGHT	83	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	290	IN ...		936
	RIGHT	305	OUT ...		825
WEST BOUND	LEFT	240	EAST LEG		
	THRU	236	IN ...		790
	RIGHT	0	OUT ...		863
		1,413			4,601

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	252	333
	THRU	7	7
	RIGHT	83	236
EAST BOUND	LEFT	0	0
	THRU	290	530
	RIGHT	305	405
WEST BOUND	LEFT	240	202
	THRU	236	589
	RIGHT	0	0
		1,413	2,301

Intersection: I-10 SB Ramps Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		349
SOUTH BOUND	LEFT	520	NORTH LEG		
	THRU	8	IN ...		1,092
	RIGHT	142	OUT ...		0
EAST BOUND	LEFT	0	WEST LEG		
	THRU	265	IN ...		953
	RIGHT	223	OUT ...		1,175
WEST BOUND	LEFT	158	EAST LEG		
	THRU	377	IN ...		763
	RIGHT	0	OUT ...		1,284
		1,693			5,615

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	520	623
	THRU	8	5
	RIGHT	142	464
EAST BOUND	LEFT	0	0
	THRU	265	661
	RIGHT	223	287
WEST BOUND	LEFT	158	56
	THRU	377	710
	RIGHT	0	0
		1,693	2,808

Intersection: I-10 NB Ramps Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	123	SOUTH LEG		
	THRU	1	IN ...		291
	RIGHT	154	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		890
EAST BOUND	LEFT	178	WEST LEG		
	THRU	359	IN ...		733
	RIGHT	0	OUT ...		766
WEST BOUND	LEFT	0	EAST LEG		
	THRU	329	IN ...		1,355
	RIGHT	667	OUT ...		723
		1,811			4,757

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	123	134
	THRU	1	1
	RIGHT	154	157
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	178	169
	THRU	359	566
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	329	632
	RIGHT	667	721
		1,811	2,379

Intersection: I-10 NB Ramps Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	241	SOUTH LEG		
	THRU	7	IN ...		487
	RIGHT	246	OUT ...		0
SOUTH BOUND	LEFT	0	NORTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		584
EAST BOUND	LEFT	116	WEST LEG		
	THRU	668	IN ...		1,240
	RIGHT	0	OUT ...		763
WEST BOUND	LEFT	0	EAST LEG		
	THRU	294	IN ...		945
	RIGHT	333	OUT ...		1,324
		1,905			5,343

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	241	248
	THRU	7	5
	RIGHT	246	234
SOUTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
EAST BOUND	LEFT	116	150
	THRU	668	1,090
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	294	515
	RIGHT	333	429
		1,905	2,671

Intersection: Oak View Drive Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	119	NORTH LEG		
	THRU	0	IN ...		359
	RIGHT	240	OUT ...		197
EAST BOUND	LEFT	139	WEST LEG		
	THRU	290	IN ...		429
	RIGHT	0	OUT ...		912
WEST BOUND	LEFT	0	EAST LEG		
	THRU	672	IN ...		730
	RIGHT	58	OUT ...		409
		1,518			3,036

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	119	119
	THRU	0	0
	RIGHT	240	240
EAST BOUND	LEFT	139	139
	THRU	290	290
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	672	672
	RIGHT	58	58
		1,518	1,518

Intersection: Oak View Drive Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		
	THRU	0	IN ...		0
	RIGHT	0	OUT ...		0
SOUTH BOUND	LEFT	100	NORTH LEG		
	THRU	0	IN ...		241
	RIGHT	141	OUT ...		326
EAST BOUND	LEFT	193	WEST LEG		
	THRU	662	IN ...		855
	RIGHT	0	OUT ...		598
WEST BOUND	LEFT	0	EAST LEG		
	THRU	457	IN ...		590
	RIGHT	133	OUT ...		762
		1,686			3,372

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	0	0
	THRU	0	0
	RIGHT	0	0
SOUTH BOUND	LEFT	100	100
	THRU	0	0
	RIGHT	141	141
EAST BOUND	LEFT	193	193
	THRU	662	662
	RIGHT	0	0
WEST BOUND	LEFT	0	0
	THRU	457	457
	RIGHT	133	133
		1,686	1,686

Intersection: Beaumont Avenue/Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: AM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	57	SOUTH LEG		
	THRU	194	IN ...		430
	RIGHT	61	OUT ...		535
SOUTH BOUND	LEFT	28	NORTH LEG		
	THRU	246	IN ...		751
	RIGHT	183	OUT ...		552
EAST BOUND	LEFT	91	WEST LEG		
	THRU	238	IN ...		589
	RIGHT	66	OUT ...		1,023
WEST BOUND	LEFT	70	EAST LEG		
	THRU	459	IN ...		639
	RIGHT	54	OUT ...		298
		1,747			4,818

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	57	105
	THRU	194	286
	RIGHT	61	38
SOUTH BOUND	LEFT	28	20
	THRU	246	349
	RIGHT	183	384
EAST BOUND	LEFT	91	215
	THRU	238	240
	RIGHT	66	131
WEST BOUND	LEFT	70	55
	THRU	459	535
	RIGHT	54	51
		1,747	2,409

Intersection: Beaumont Avenue/Oak Valley Parkway
 Condition: 2040 Build-out
 Peak Hour: PM Peak Hour

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

*** INPUT DATA *** Modified by: COMSIS Corp. (M. Roskin) 4/9/86

Modified by: FHWA 12/21/87

APPROACH	TURN MOVEMENT	BY COUNT	INTERSECTION LEG	FY	TOTAL
NORTH BOUND	LEFT	85	SOUTH LEG		
	THRU	338	IN ...		681
	RIGHT	59	OUT ...		568
SOUTH BOUND	LEFT	89	NORTH LEG		
	THRU	229	IN ...		716
	RIGHT	171	OUT ...		939
EAST BOUND	LEFT	227	WEST LEG		
	THRU	391	IN ...		1,087
	RIGHT	77	OUT ...		1,004
WEST BOUND	LEFT	93	EAST LEG		
	THRU	382	IN ...		680
	RIGHT	85	OUT ...		653
		2,226			6,327

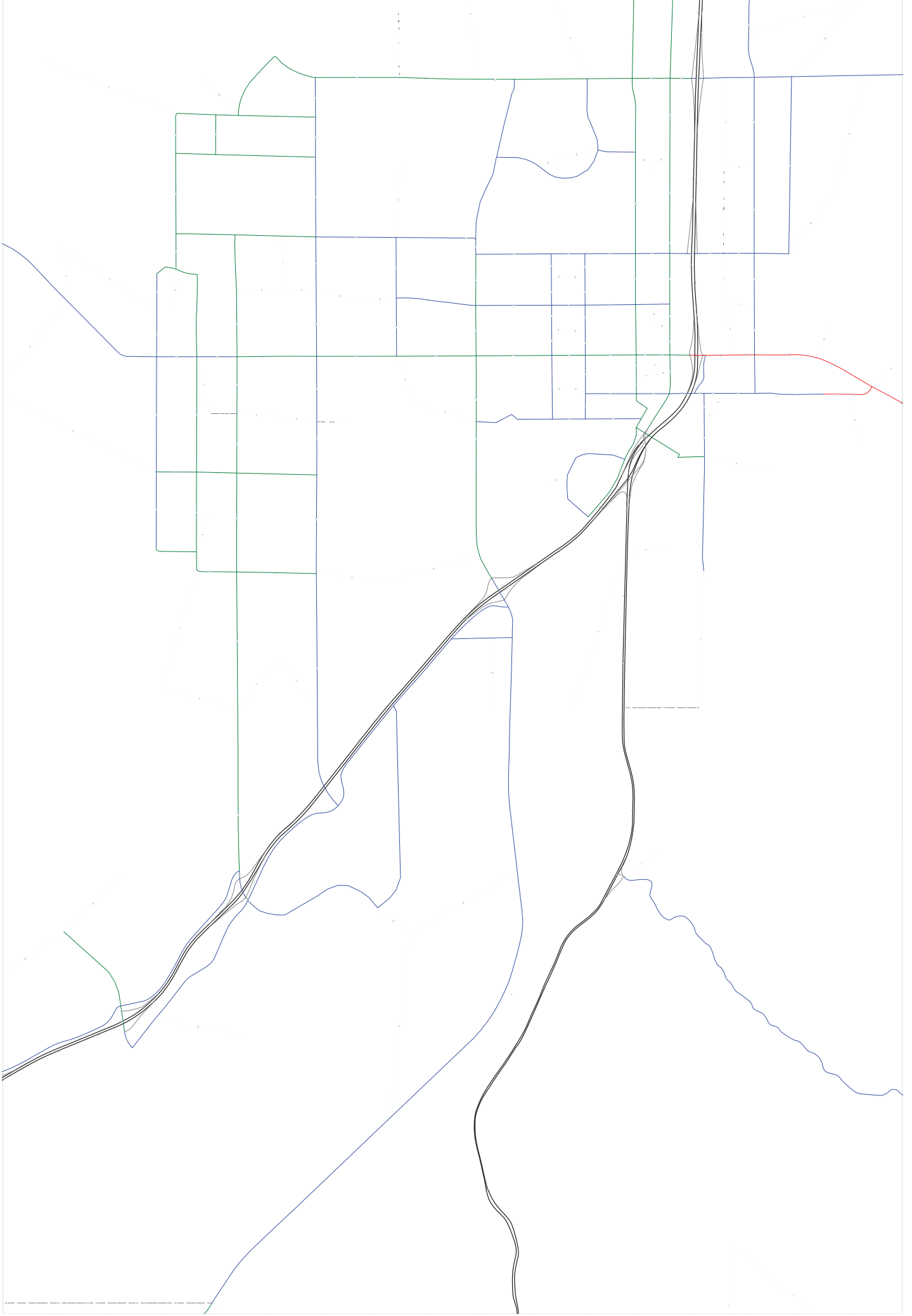
FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255, PAGE 105 Written by: FHWA (C. Fleet)

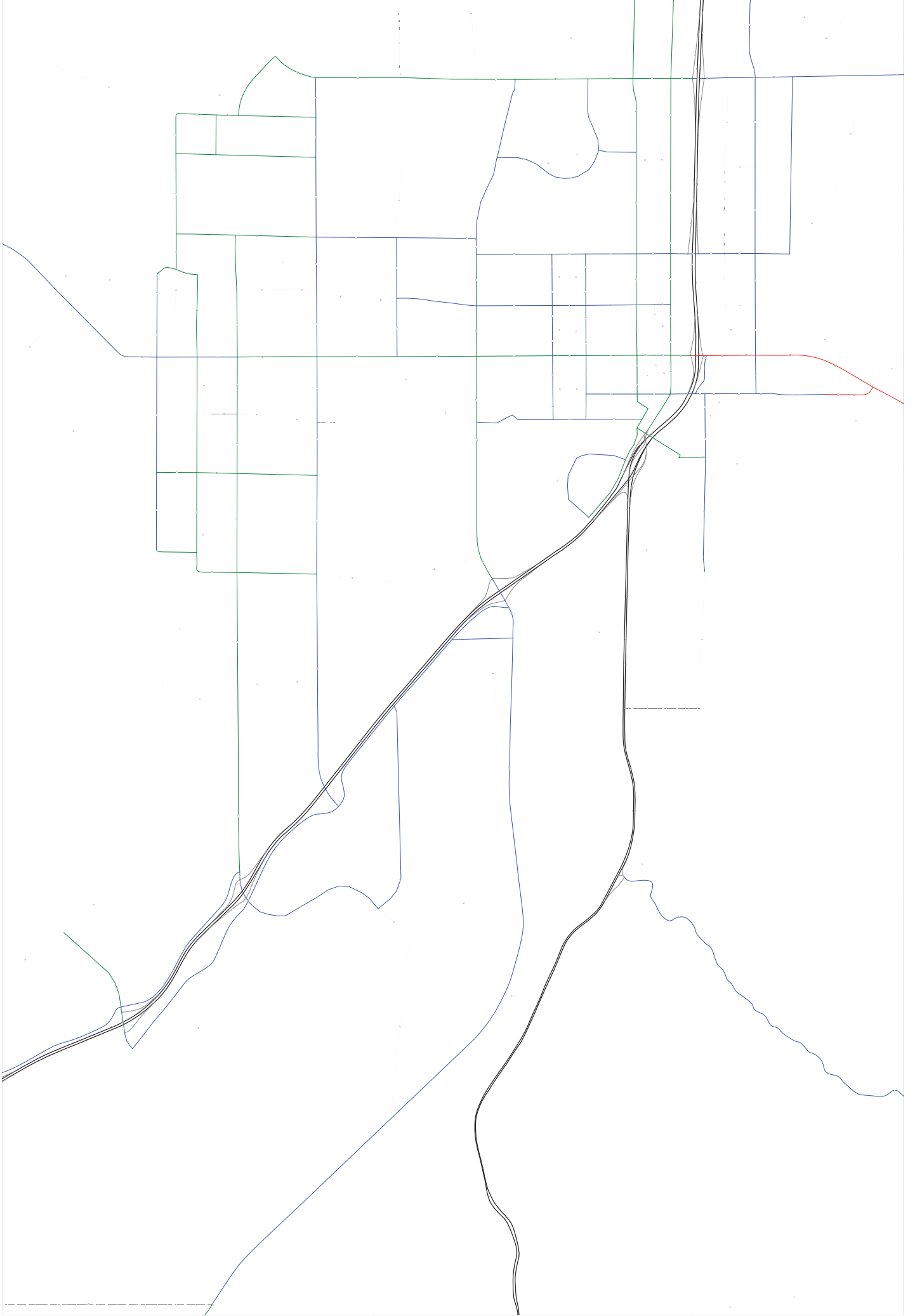
*** RESULTS *** Modified by: COMSIS Corp. (M. Roskin) 2/13/86

APPROACH	TURN MOVEMENT	BY COUNT	FY FORECAST
NORTH BOUND	LEFT	85	172
	THRU	338	452
	RIGHT	59	57
SOUTH BOUND	LEFT	89	80
	THRU	229	318
	RIGHT	171	319
EAST BOUND	LEFT	227	412
	THRU	391	516
	RIGHT	77	157
WEST BOUND	LEFT	93	93
	THRU	382	513
	RIGHT	85	75
		2,226	3,164

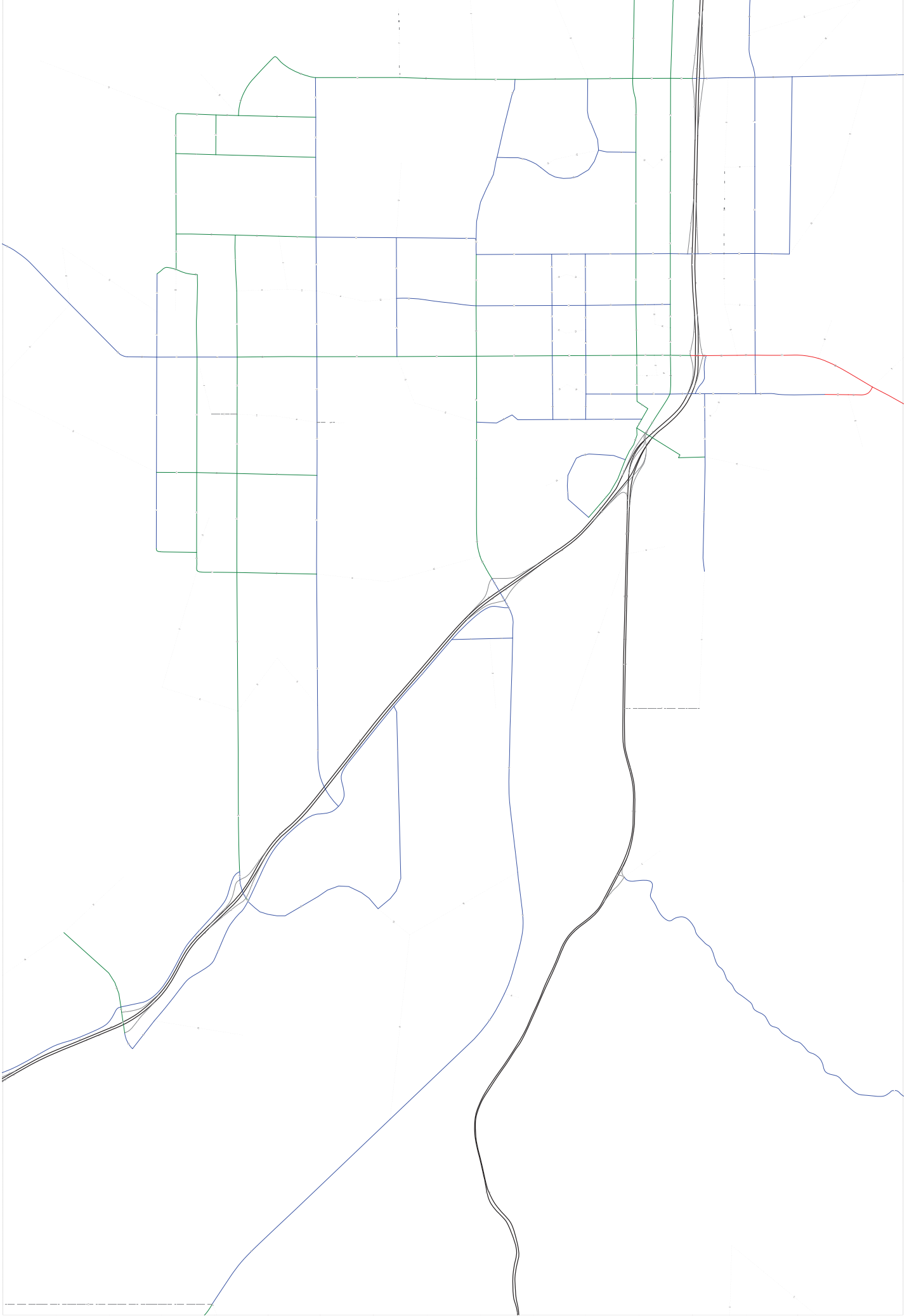
RivTAM 2012 A.M. Peak Period PCE Volumes



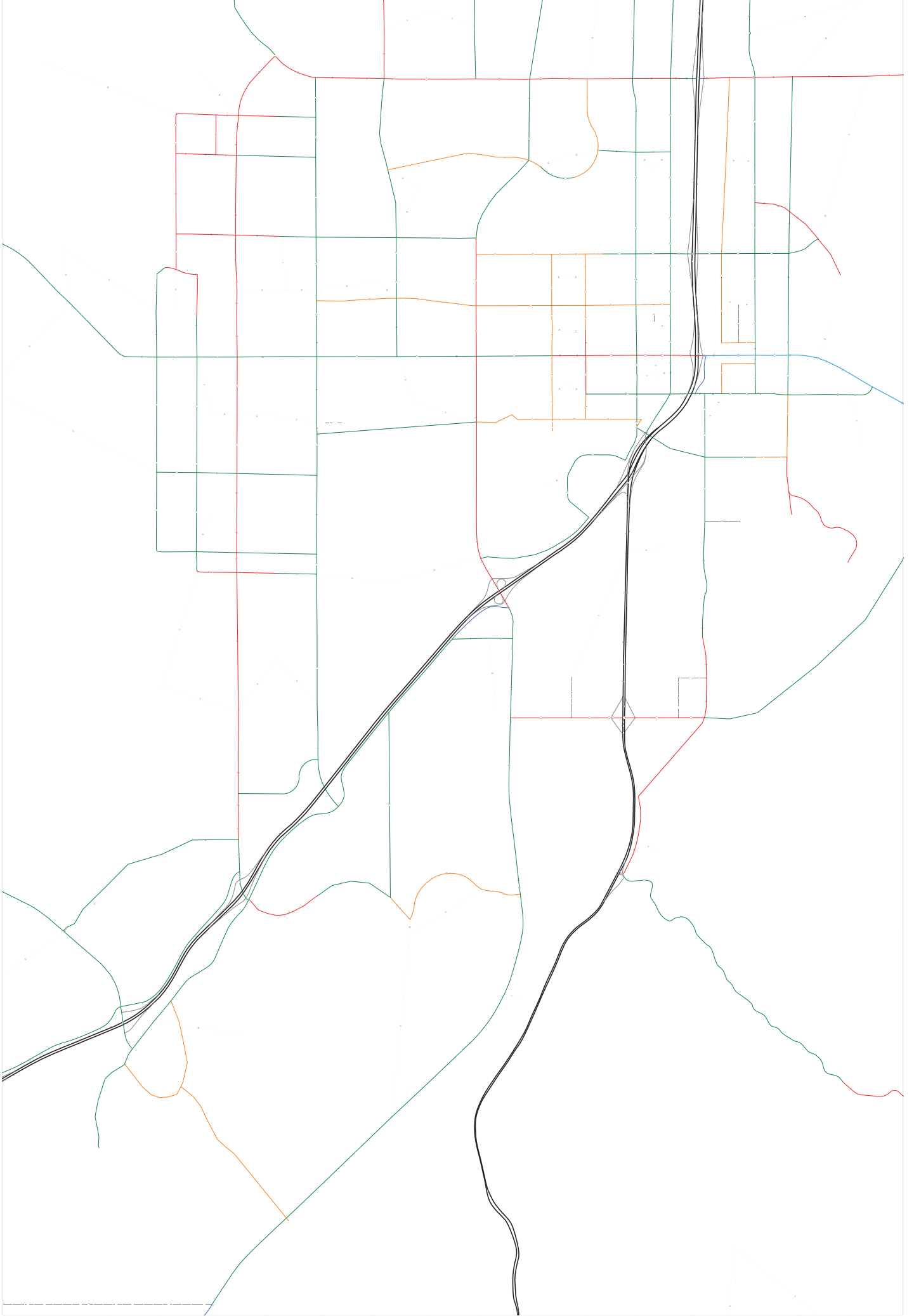
RivTAM 2012 P.M. Peak Period PCE Volumes



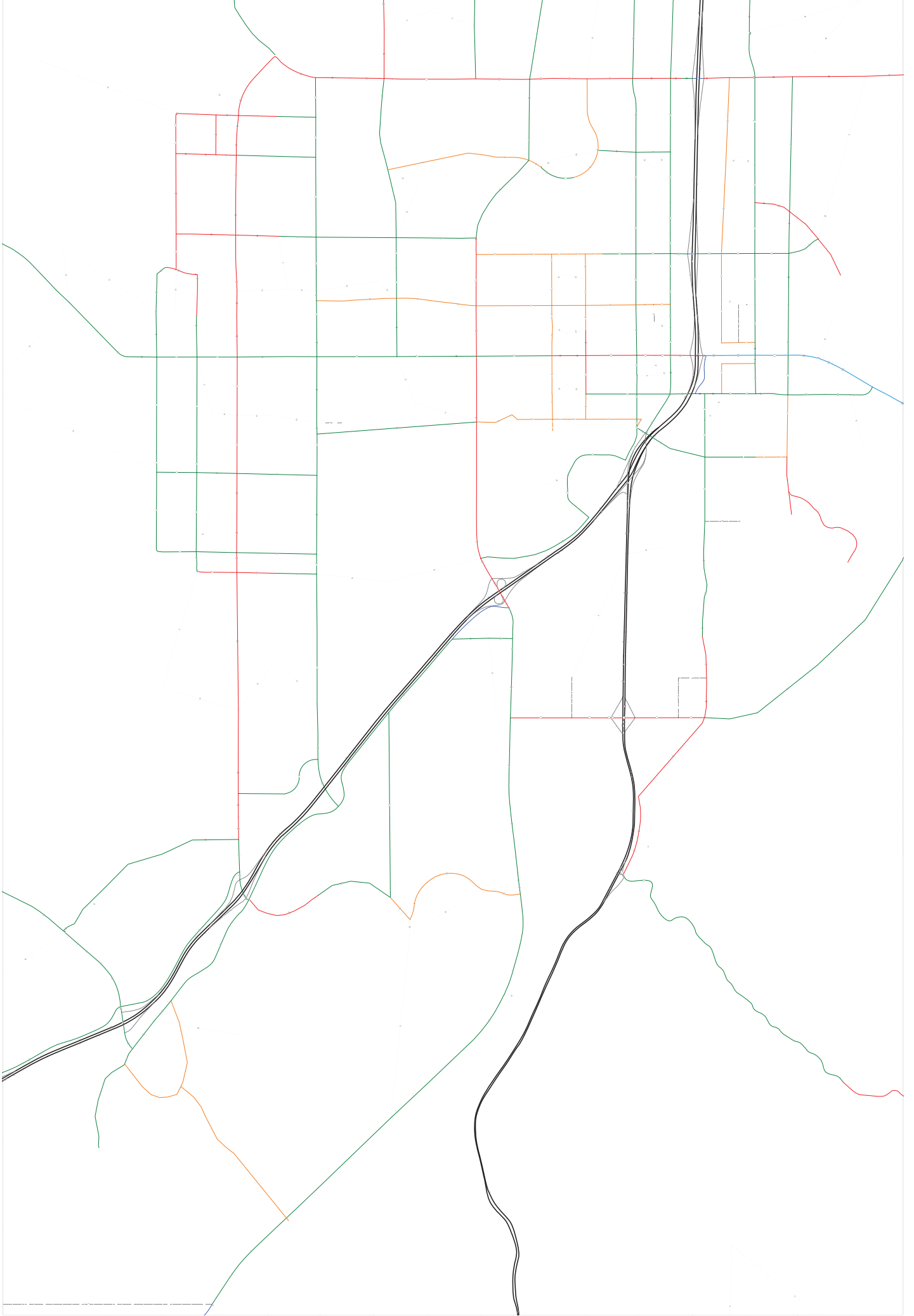
RivTAM 2012 Daily PCE Volumes



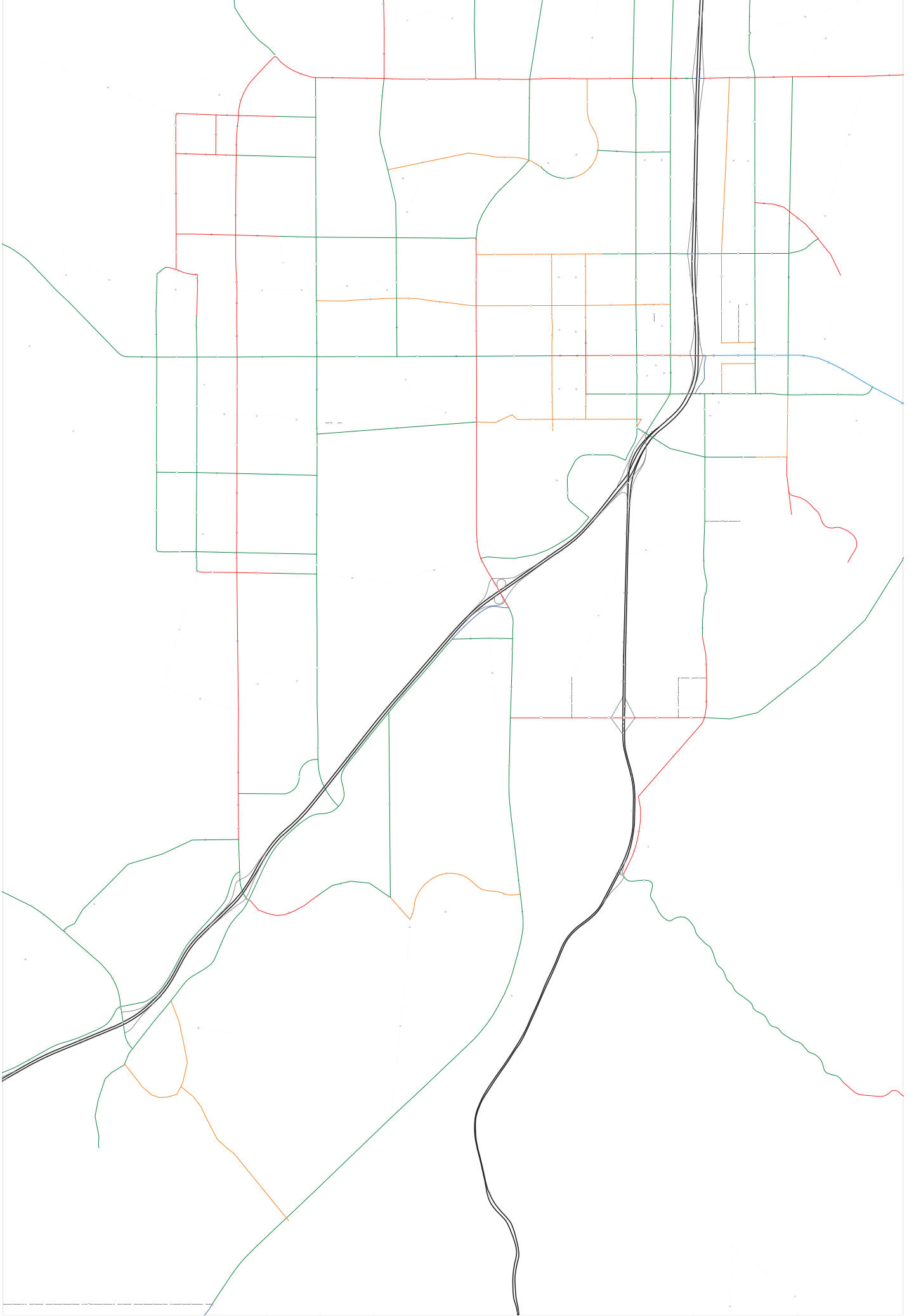
RivTAM 2040 A.M. Peak Period PCE Volumes



RivTAM 2040 P.M. Peak Period PCE Volumes



RivTAM 2040 Daily PCE Volumes



MEMORANDUM**To:** Kari Cano**From:** Pranesh Tarikere, PE
Mehul Champaneri**Date:** February 1, 2022**Re:** Beaumont Summit Station Project Vehicle Mile Traveled (VMT) Analysis

The memorandum documents Vehicle Miles Traveled (VMT) Analysis for the proposed Beaumont Summit Station project (Project) in the City of Beaumont.

Project Description

The Project site is located in the northwestern area of the City of Beaumont, immediately east of the Interstate 10 (I-10) Freeway. A project vicinity map is provided on **Figure 1**. The site is bounded by Cherry Valley Boulevard to the north, the I-10 Freeway to the west, Brookside Avenue to the south and generally vacant land to the east. Based on the City of Beaumont General Plan, the project site is currently zoned as single-family residential, but is currently vacant. The Project site is comprised of nine vacant parcels.

The Project site is divided into five parcels and will be developed in two phases. Phase 1 will include Parcels 1, 2, and 3 designated for industrial uses. These parcels are proposed to be developed with three separate industrial warehouse buildings, as follows:

- Building 1: 985,860 square-foot (SF) high-cube short-term storage building
- Building 2: 1,213,235 SF high-cube short-term storage building
- Building 3: 358,370 SF general warehouse

The Project proposed to amend the existing zoning from Single-Family Residential to Light Industrial for Parcels 1, 2, and 3 to allow for industrial uses. Phase 1 of construction is anticipated to begin the second quarter of 2023 and conclude in the third quarter of 2024.

Parcel 4 will be developed as part of Phase 2 and would include the development of Commercial uses, as follows:

- Four-story hotel: 220 rooms
- Shopping center: 25,000 SF
- High-turnover (sit-down) restaurant: 15,000 SF
- Fast-food restaurant with drive-throughs: 10,000 SF

Phase 2 of the Project is anticipated to begin early 2026 and finish mid to late 2027. A copy of the project site plan is provided on **Figure 2**. Project access would consist of three driveways along Cherry Valley Boulevard. The west and middle project driveways would be signalized and the east project driveway would be an unsignalized right-in-right-out (RIRO) only driveway.

Senate Bill 743 (SB 743)

SB 743, approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). The Governor's Office of Planning and Research (OPR) has recommended the use of VMT as the replacement for automobile delay-based LOS for the purposes of determining a significant transportation impact under CEQA. As of December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). To assist in the implementation of VMT as the primary measure of a transportation impact under CEQA, the OPR published an updated Technical Advisory on Evaluating Transportation Impacts in CEQA in December 2018. Statewide application of the new guidelines went into effect on July 1, 2020.

The City of Beaumont has adopted VMT thresholds of significance for determining the significance of transportation impacts based on the Western Riverside Council of Governments (WRCOG) Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (updated March 2020). The City has adopted the following:

- Utilizing the Riverside County Travel Demand Model (RIVTAM/RIVCOM) as its methodology to measure VMT.
- Utilizing the Riverside County Travel Demand Model (RIVTAM/RIVCOM) as its method to analyze a project's VMT impact.
- Utilizing a threshold consistent with the City's current average VMT per service population (population plus employment).

VMT Thresholds

The City of Beaumont staff report for SB 743 VMT Thresholds for CEQA Compliance Related to Transportation Analysis (June 16, 2020) recommends VMT thresholds consistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) future year VMT by jurisdiction as described below:

The portions of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) that affect Beaumont are based on the land use element of the General Plan. As such, using this option assumes that projects consistent with the General Plan are also consistent with the RTP/SCS and should not require additional analysis for VMT. Projects that require amendment to the General Plan

that would trigger an EIR would need to complete a VMT analysis using the methodology described above. Other amendments to the General Plan would need to be evaluated on a case-by-case basis. Rather than the 15% reduction in VMT recommended in the OPR guidance, staff is recommending that future projects demonstrate that they will reduce existing VMT by at least 3%. Projects that cannot demonstrate a 3% reduction in VMT will be required to conduct additional analysis and add mitigation as appropriate. If project design or operational features cannot reduce VMT below the threshold then an EIR may be required in order for the City to consider a statement of overriding considerations.

As the project related entitlements includes a General Plan Amendment, a full VMT analysis has been conducted for the Project consistent with the City of Beaumont guidelines.

VMT Analysis

A logical way to evaluate this type of facility is to consider the major trip purposes of the site in terms of their trip length and frequency. Given the description, three types of trips were broadly considered for this development given its context: (1) employee commute trips; (2) other trips related to functioning of the business and/or its employees and (3) truck trips related to shipping activities; and. The following discussion is provided regarding these three broad trip types.

- (1) Employee commute trips.** These are the primary automobile trips associated with employment generating uses such as the proposed Project. This facility is expected to provide additional jobs and some related trips to the area. The efficiency of VMT associated with employee commute trips has been assessed based on RivTAM consistent with the City's guidelines.
- (2) Other trips.** These are often the smallest number and shortest distance of trips for a facility like this and include a broad range of trip types, such as, employee lunches off-site, maintenance teams for on-site infrastructure, office supply deliveries, etc. As such their impact to the overall VMT of the site is likely minimal. As such it is not likely that they are impactful to the local transportation system and are secondary to the other two trip types discussed. The efficiency of VMT associated other trips has also been assessed based on RivTAM consistent with the adopted City's guidelines.
- (3) Truck trips related to shipping activities.** CEQA Guidelines Section 15064.3, subdivision (a) states "For the purposes of this section 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." The OPR's 2018 Technical Advisory indicates that, although heavy vehicle traffic can be included for analysis convenience, the provided analysis requirements are specific to passenger-vehicles and light duty trucks. While it may be appropriate to consider heavy vehicle traffic if directed by the lead agency, it is generally understood that Interstate commerce and related heavy vehicle traffic are regulated by the federal government as it relates to commerce. Irrespective of this and considering that the end-user of this facility is unknown at this time (so the nature of the business enterprise and its probably origins and destinations are unknown), it is reasonable to assume that the ultimate end user will select this location, at least in part, as to how it effects their transportation costs. Most often businesses who have shipping as a significant part of their operations are sensitive to

transportation costs and their relative proximity to customers and suppliers. Accordingly, it is reasonable to assume that warehouses are often located in a manner to reduce VMT given that it is the interest of the business. It is also recognized that the Project would generate Heavy Duty Truck (HDT) traffic and has been considered in this VMT assessment. For consistency with other CEQA technical studies, HDT VMT identified in this analysis will be reflected in other applicable technical studies (e.g. Air Quality Impact Analysis, Greenhouse Gas Analysis, etc.).

Project VMT

The calculation of vehicle miles traveled has two components – the total number of trips generated and the average trip length of each vehicle. RivTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households and employment. Project VMT was calculated using the most current version of RivTAM. Adjustments in socio-economic data (households, population and employment) were made to the appropriate traffic analysis zone (TAZ) within the RivTAM model to reflect the Project's proposed land use. Socio-economic data inputs were derived based on factors developed using ITE trip generation rates..

Project Home-Based Work (HBW) VMT per Employee

The home-based work (HBW) VMT per employee is the HBW attraction VMT divided by the number of employees derived from the RivTAM model. The HBW VMT per Employee is used to measure efficiency of VMT generated by employment-based uses. The Project HBW VMT per Employee calculated based on RivTAM is 14.9.

Project VMT per Service Population (SP)

Service population is defined as the sum of population and employment. Since the Project does not have any residential component, the Project SP consists of employees only. The VMT per SP is the total VMT (including all trip purposes) divided by the number of workers derived from the RivTAM model. The VMT per SP is used to measure efficiency of VMT generated by all trip purposes. The Project VMT per SP calculated based on RivTAM is 55.9.

Heavy Truck VMT

Consistent with air quality and greenhouse gas analyses, the average trip length for heavy trucks were assumed to be 33.2 miles one way based on the data provided in California Air Resources Board, Appendix B: Emissions Estimation Methodology for On-Road Diesel-Fueled Heavy-Duty Drayage Trucks at California Ports and Intermodal Rail Yards, 2007. As a conservative measure, a trip length of 33.2 miles has been utilized for all trucks multiplied by the daily truck trips (659) estimated in the TIA based on Institute of Transportation Engineer (ITE) trip rates, resulting in a heavy truck daily VMT of 21,879.

VMT Thresholds

For purposes of this VMT assessment the Project’s HBW VMT per Employee and VMT per SP has been compared to 3% below citywide average future year (2040) VMT for the City of Beaumont, based on data provided by WRCOG. Table 1 shows the calculated VMT thresholds for HBW VMT per Employee and VMT per SP:

TABLE 1: VMT THRESHOLDS

Threshold Option	Citywide Average	Threshold (3% below)
Future Year (2040) HBW VMT per Employee	9.2	8.9
Future Year (2040) VMT per SP	31.3	30.4

Potential Impacts

As shown in Table 2, the Project’s HBW VMT per Employee and VMT per SP would not meet the 3% below citywide future year threshold. As such, the Project’s transportation impact is potentially significant based on City of Beaumont’s recommended thresholds.

TABLE 2: VMT IMPACT EVALUATION

Threshold Option	Threshold	Project	Change in VMT	Potentially Significant?
HBW VMT Employee	8.9	14.9	+6.0	Yes
VMT per SP	30.4	55.9	+25.5	Yes

Mitigation

Transportation demand management (TDM) strategies have been evaluated for reducing VMT impacts determined to be potentially significant. Given the jurisdiction’s rural / suburban land use context, the following key strategies may be considered for the project.

- Improving pedestrian networks
- Implementing traffic calming infrastructure
- Building low-street bicycle network improvements
- Encouraging alternative work schedules
- Providing ride-share programs.

The effectiveness of the above-noted TDM measures would be dependent on the ultimate building tenant(s), which are unknown at this time. Beyond project design and tenancy considerations, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the project's suburban context acts to reduce the range of feasible TDM measures and their potential effectiveness.

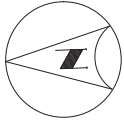
Consistent with the mitigation measures recommended in the air quality and greenhouse gas analyses, the Project shall implement a TDM program to reduce single occupant vehicle trips and encourage transit. Prior to issuance of occupancy permits, the Project operator shall prepare and submit TDM program detailing strategies that would reduce the use of single occupant vehicles by employees by increasing the number of trips by walking, bicycle, carpool, vanpool and transit. The TDM shall include, but is not limited to the following:

- Provide a transportation information center and on-site TDM coordinator to educate residents, employers, employees, and visitors of surrounding transportation options.
- Promote bicycling and walking through design features such as showers for employees, self-service bicycle repair area, etc. around the project site.
- Each building shall provide secure bicycle storage space equivalent to two percent of the automobile parking spaces provided.
- Each building shall provide a minimum of two shower and changing facilities within 200 yards of a building entrance.
- Provide on-site car share amenities for employees who make only occasional use of a vehicle, as well as others who would like occasional access to a vehicle of a different type than they use day-to-day.
- Promote and support carpool/vanpool/rideshare use through parking incentives and administrative support, such as ride-matching service.
- Incorporate incentives for using alternative travel modes, such as preferential load/unload areas or convenient designated parking spaces for carpool/vanpool users.
- Provide meal options onsite or shuttles between the facility and nearby meal destinations.
- Each building shall provide preferred parking for electric, low-emitting and fuel-efficient vehicles equivalent to at least eight percent of the required number of parking spaces.

Based on available research, for projects located within a suburban context, a maximum 10% reduction in VMT is achievable when combining multiple mitigation strategies. Due to limitations of project-level approaches to reducing VMT, the City or region may consider larger mitigation programs such as VMT mitigation banks and exchanges. VMT mitigation banks and exchanges have not yet been developed or tested by WRCOG or City of Beaumont.

Conclusion

The Project's transportation impact based on VMT is potentially significant based on City of Beaumont's recommended thresholds. As the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured, project's VMT impact is therefore considered significant and unavoidable.



NOT TO SCALE

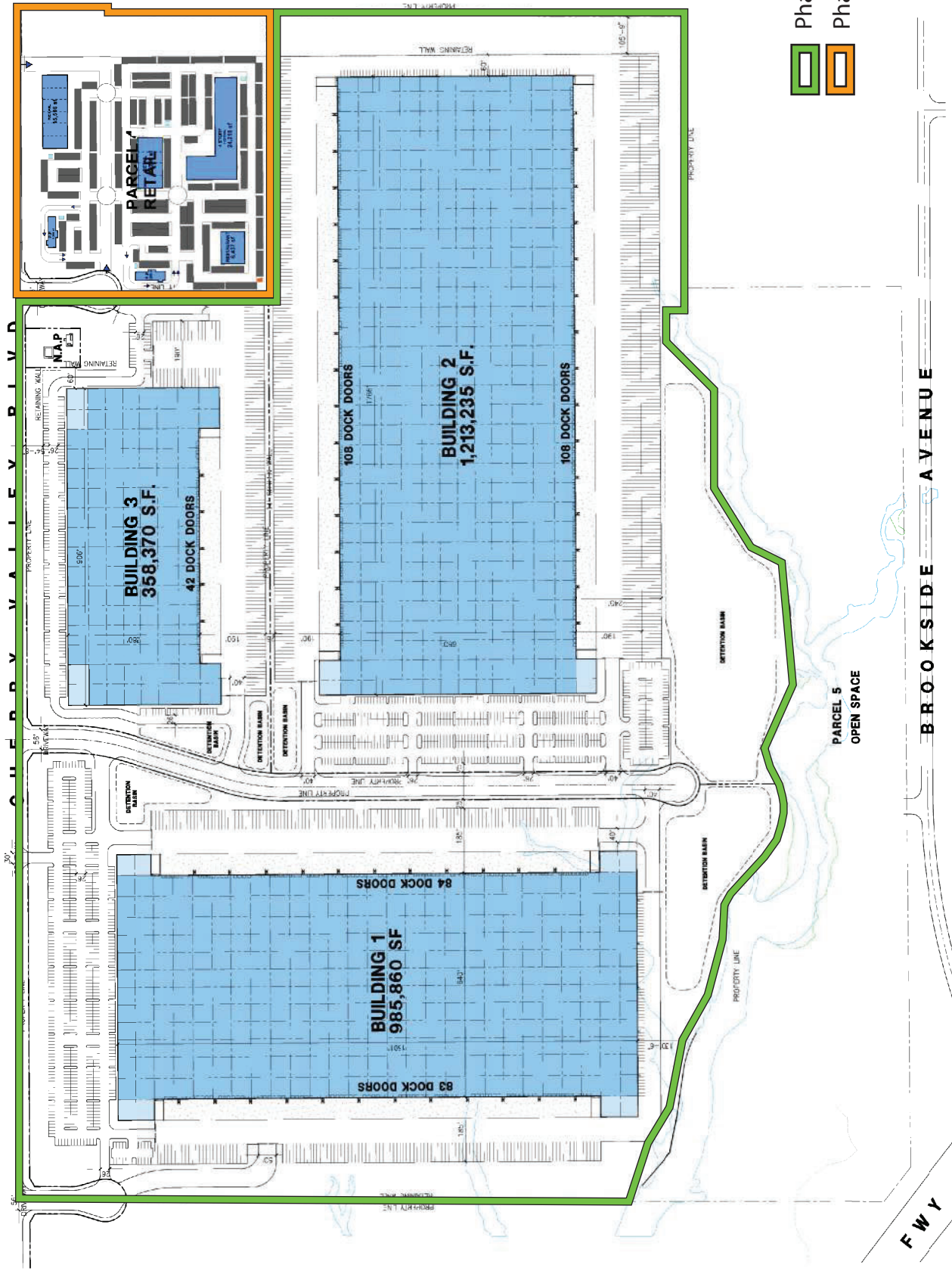
Project Site



LEGEND:
(X) = Study Intersection

FIGURE 1
VICINITY MAP





Phase 1
Phase 2

Source: HPA Architecture, Conceptual Site Plan, June 24, 2021
FIGURE 2: Conceptual Site Plan
Beaumont Summit Station

Kimley-Horn.com/ca_riv2/RIV_GIS1195324001 - Cherry Valley Industrial Warehouse 3 Site Plan.mxd



Kimley»Horn