Appendix D

Capacity Analyses

2004 Existing Conditions

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	340	339	389	124	48
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (veh/h)	0	378	377	432	138	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1066				
pX, platoon unblocked						
vC, conflicting volume	809				971	593
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	809				971	593
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				51	89
cM capacity (veh/h)	817				281	506

Direction, Lane #	NB 1	SB 1	NE 1
Volume Total	378	809	191
Volume Left	0	0	138
Volume Right	0	432	53
cSH	817	1700	320
Volume to Capacity	0.00	0.48	0.60
Queue Length (ft)	0	0	91
Control Delay (s)	0.0	0.0	31.5
Lane LOS			D
Approach Delay (s)	0.0	0.0	31.5
Approach LOS			D

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	63.8%	ICU Level of Service	B

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Sign Control	Stop				Stop			Stop			Stop	
Volume (veh/h)	16	110	1	96	158	8	3	332	22	13	104	178
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	17	120	1	104	172	9	3	361	24	14	113	193

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SE 1
Volume Total (vph)	137	1	285	388	321
Volume Left (vph)	17	0	104	3	14
Volume Right (vph)	0	1	9	24	193
Hadj (s)	0.1	-0.6	0.1	0.0	-0.3
Departure Headway (s)	6.9	6.3	6.0	5.8	5.8
Degree Utilization, x	0.26	0.00	0.48	0.62	0.52
Capacity (veh/h)	464	502	555	595	576
Control Delay (s)	11.2	8.1	14.4	17.8	14.9
Approach Delay (s)	11.2		14.4	17.8	14.9
Approach LOS	B		B	C	B

Intersection Summary			
Delay	15.3		
HCM Level of Service	C		
Intersection Capacity Utilization	76.6%	ICU Level of Service	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		4%			0%			0%			0%	
Volume (veh/h)	2	4	111	8	5	19	112	319	11	4	332	3
Peak Hour Factor	0.82	0.82	0.82	0.73	0.73	0.73	0.97	0.97	0.97	0.85	0.85	0.85
Hourly flow rate (veh/h)	2	5	135	11	7	26	115	329	11	5	391	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								739				
pX, platoon unblocked												
vC, conflicting volume	991	973	392	1105	969	335	394			340		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	991	973	392	1105	969	335	394			340		
tC, single (s)	7.1	6.8	6.2	7.1	6.5	6.4	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.5	4.0	3.5	2.2			2.4		
p0 queue free %	99	98	79	92	97	96	90			100		
cM capacity (veh/h)	196	206	654	136	229	666	1164			1101		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	143	44	115	340	399
Volume Left	2	11	115	0	5
Volume Right	135	26	0	11	4
cSH	587	293	1164	1700	1101
Volume to Capacity	0.24	0.15	0.10	0.20	0.00
Queue Length (ft)	24	13	8	0	0
Control Delay (s)	13.1	19.4	8.4	0.0	0.1
Lane LOS	B	C	A		A
Approach Delay (s)	13.1	19.4	2.1		0.1
Approach LOS	B	C			

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	58.0%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	7	39	46	509	533	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	8	42	50	553	579	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				522		
pX, platoon unblocked						
vC, conflicting volume	959	582	585			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	959	582	585			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	91	95			
cM capacity (veh/h)	242	456	986			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	50	234	369	585
Volume Left	8	50	0	0
Volume Right	42	0	0	5
cSH	402	986	1700	1700
Volume to Capacity	0.12	0.05	0.22	0.34
Queue Length (ft)	11	4	0	0
Control Delay (s)	15.2	2.3	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	15.2	0.9		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	34	80	400	8	33	440
Peak Hour Factor	0.81	0.81	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	42	99	455	9	38	500
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			351			
pX, platoon unblocked	1.00	1.00			1.00	
vC, conflicting volume	784	232			464	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	778	224			457	
tC, single (s)	7.3	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.8	3.3			2.2	
p0 queue free %	85	87			97	
cM capacity (veh/h)	276	782			1089	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	141	303	161	204	333
Volume Left	42	0	0	38	0
Volume Right	99	0	9	0	0
cSH	506	1700	1700	1089	1700
Volume to Capacity	0.28	0.18	0.09	0.03	0.20
Queue Length (ft)	28	0	0	3	0
Control Delay (s)	14.8	0.0	0.0	1.8	0.0
Lane LOS	B			A	
Approach Delay (s)	14.8	0.0		0.7	
Approach LOS	B				

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	24	37	30	384	397	51
Peak Hour Factor	0.76	0.76	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	32	49	34	436	451	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				267		
pX, platoon unblocked	0.97					
vC, conflicting volume	766	255	509			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	724	255	509			
tC, single (s)	7.0	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	90	93	97			
cM capacity (veh/h)	318	742	1066			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	80	180	291	301	208
Volume Left	32	34	0	0	0
Volume Right	49	0	0	0	58
cSH	487	1066	1700	1700	1700
Volume to Capacity	0.16	0.03	0.17	0.18	0.12
Queue Length (ft)	15	2	0	0	0
Control Delay (s)	13.9	1.9	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	13.9	0.7		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	28.3%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	57	33	59	164	238	99
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	62	36	64	178	259	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				889		
pX, platoon unblocked						
vC, conflicting volume	619	312	366			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	619	312	366			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	95	95			
cM capacity (veh/h)	428	728	1192			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	98	242	366
Volume Left	62	64	0
Volume Right	36	0	108
cSH	504	1192	1700
Volume to Capacity	0.19	0.05	0.22
Queue Length (ft)	18	4	0
Control Delay (s)	13.9	2.5	0.0
Lane LOS	B	A	
Approach Delay (s)	13.9	2.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	48.7%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	97	4	33	252	156	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	105	4	36	274	170	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	533					
pX, platoon unblocked						
vC, conflicting volume			110		451	105
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			110		451	105
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		69	86
cM capacity (veh/h)			1480		552	949

Direction, Lane #	NB 1	NB 2	SB 1	NW 1	NW 2
Volume Total	105	4	310	170	136
Volume Left	0	0	36	170	0
Volume Right	0	4	0	0	136
cSH	1700	1700	1480	552	949
Volume to Capacity	0.06	0.00	0.02	0.31	0.14
Queue Length (ft)	0	0	2	32	12
Control Delay (s)	0.0	0.0	1.1	14.4	9.4
Lane LOS			A	B	A
Approach Delay (s)	0.0		1.1	12.2	
Approach LOS				B	

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	0	281	2	1	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	305	2	1	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	307			308	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	307			308	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	649	733			1253	

Direction, Lane #	NB 1	SB 1
Volume Total	308	40
Volume Left	0	1
Volume Right	2	0
cSH	1700	1253
Volume to Capacity	0.18	0.00
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.2
Lane LOS		A
Approach Delay (s)	0.0	0.2
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	38	9	10	165	5	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	41	10	11	179	5	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	467					
pX, platoon unblocked						
vC, conflicting volume			51		247	46
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		247	46
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	100
cM capacity (veh/h)			1555		736	1023

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	51	190	8
Volume Left	0	11	5
Volume Right	10	0	2
cSH	1700	1555	800
Volume to Capacity	0.03	0.01	0.01
Queue Length (ft)	0	1	1
Control Delay (s)	0.0	0.5	9.5
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.5
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	21.5%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	73	39	0	170	27	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	79	42	0	185	29	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		401				
pX, platoon unblocked						
vC, conflicting volume	185				201	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	185				201	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				96	100
cM capacity (veh/h)	1390				743	1085

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	122	185	29
Volume Left	79	0	29
Volume Right	0	185	0
cSH	1390	1700	743
Volume to Capacity	0.06	0.11	0.04
Queue Length (ft)	5	0	3
Control Delay (s)	5.2	0.0	10.0
Lane LOS	A		B
Approach Delay (s)	5.2	0.0	10.0
Approach LOS			B

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	24.7%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frt	1.00			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3513			3438	1747	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3513			3438	1747	
Volume (vph)	348	108	0	485	259	26
Peak-hour factor, PHF	0.88	0.88	0.90	0.88	0.92	0.92
Adj. Flow (vph)	395	123	0	551	282	28
Lane Group Flow (vph)	518	0	0	551	310	0
Heavy Vehicles (%)	3%	2%	0%	5%	3%	0%
Turn Type						
Protected Phases	1 2			1 2	3	
Permitted Phases						
Actuated Green, G (s)	46.0			46.0	15.2	
Effective Green, g (s)	48.0			48.0	17.2	
Actuated g/C Ratio	0.60			0.60	0.22	
Clearance Time (s)					6.0	
Vehicle Extension (s)					2.5	
Lane Grp Cap (vph)	2108			2063	376	
v/s Ratio Prot	0.15			c0.16	c0.18	
v/s Ratio Perm						
v/c Ratio	0.25			0.27	0.82	
Uniform Delay, d1	7.5			7.6	30.0	
Progression Factor	0.03			1.00	1.00	
Incremental Delay, d2	0.0			0.1	13.4	
Delay (s)	0.3			7.7	43.3	
Level of Service	A			A	D	
Approach Delay (s)	0.3			7.7	43.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	39.2%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	41	15	456	478	7
Peak Hour Factor	0.90	0.90	0.88	0.88	0.90	0.88
Hourly flow rate (veh/h)	0	46	17	518	531	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	0					
Upstream signal (ft)					69	
pX, platoon unblocked	0.95	0.95	0.95			
vC, conflicting volume	828	270	539			
vC1, stage 1 conf vol	535					
vC2, stage 2 conf vol	293					
vCu, unblocked vol	763	173	457			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	98			
cM capacity (veh/h)	219	802	1055			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	46	17	259	259	354	185
Volume Left	0	17	0	0	0	0
Volume Right	46	0	0	0	0	8
cSH	802	1055	1700	1700	1700	1700
Volume to Capacity	0.06	0.02	0.15	0.15	0.21	0.11
Queue Length (ft)	5	1	0	0	0	0
Control Delay (s)	9.8	8.5	0.0	0.0	0.0	0.0
Lane LOS	A	A				
Approach Delay (s)	9.8	0.3			0.0	
Approach LOS	A					

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	24.9%	ICU Level of Service	A

Movement	EBL	EBT	WBT	SET	NWL2	NWT	NWR	NEL
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	
Frt	1.00	1.00			1.00	1.00	0.85	
Flt Protected	0.95	1.00			0.95	0.99	1.00	
Satd. Flow (prot)	1805	1759			1595	3333	1538	
Flt Permitted	0.95	1.00			0.95	0.99	1.00	
Satd. Flow (perm)	1805	1759			1595	3333	1538	
Volume (vph)	16	48	0	0	515	480	41	0
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.92	0.92	0.92	0.90
Adj. Flow (vph)	19	56	0	0	560	522	45	0
Lane Group Flow (vph)	19	56	0	0	472	610	45	0
Heavy Vehicles (%)	0%	8%	0%	0%	3%	3%	5%	0%
Turn Type	Split				custom		Perm	
Protected Phases	3	3			1	1		
Permitted Phases					1		1	
Actuated Green, G (s)	15.2	15.2			35.0	35.0	35.0	
Effective Green, g (s)	17.2	17.2			37.0	37.0	37.0	
Actuated g/C Ratio	0.22	0.22			0.46	0.46	0.46	
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	
Vehicle Extension (s)	2.5	2.5			2.5	2.5	2.5	
Lane Grp Cap (vph)	388	378			738	1542	711	
v/s Ratio Prot	0.01	c0.03			c0.30	0.18		
v/s Ratio Perm							0.03	
v/c Ratio	0.05	0.15			0.64	0.40	0.06	
Uniform Delay, d1	24.9	25.5			16.4	14.1	11.9	
Progression Factor	1.11	1.05			1.57	1.06	1.26	
Incremental Delay, d2	0.0	0.1			4.2	0.8	0.2	
Delay (s)	27.7	26.7			29.9	15.7	15.2	
Level of Service	C	C			C	B	B	
Approach Delay (s)		27.0	0.0	0.0		21.7		0.0
Approach LOS		C	A	A		C		A

Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	31.3%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Sign Control	Stop			Free			Free		Stop	
Grade	0%			0%			0%		0%	
Volume (veh/h)	0	0	0	0	0	0	700	32	397	118
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95
Hourly flow rate (veh/h)	0	0	0	0	0	0	753	34	418	124
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None								None	
Median storage veh)										
Upstream signal (ft)				965						
pX, platoon unblocked										
vC, conflicting volume	770	394	787			0			376	787
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	770	394	787			0			376	787
tC, single (s)	6.5	6.9	4.1			4.1			7.6	6.5
tC, 2 stage (s)										
tF (s)	4.0	3.3	2.2			2.2			3.5	4.0
p0 queue free %	100	100	100			100			24	62
cM capacity (veh/h)	334	611	841			1636			551	326

Direction, Lane #	SB 1	SB 2	SW 1	SW 2
Volume Total	502	285	418	124
Volume Left	0	0	418	0
Volume Right	0	34	0	0
cSH	1700	1700	551	326
Volume to Capacity	0.30	0.17	0.76	0.38
Queue Length (ft)	0	0	168	43
Control Delay (s)	0.0	0.0	29.2	22.7
Lane LOS			D	C
Approach Delay (s)	0.0		27.7	
Approach LOS			D	

Intersection Summary			
Average Delay	11.3		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	0	1043	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	0	0	1134	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				746		
pX, platoon unblocked						
vC, conflicting volume	1159	592	1185			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1159	592	1185			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	189	449	585			

Direction, Lane #	SB 1	SB 2
Volume Total	756	429
Volume Left	0	0
Volume Right	0	51
cSH	1700	1700
Volume to Capacity	0.44	0.25
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.3%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	4	0	0	1014	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	4	0	0	1102	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				174		
pX, platoon unblocked						
vC, conflicting volume	1114	563	1126			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1114	563	1126			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	202	470	616			

Direction, Lane #	EB 1	SB 1	SB 2
Volume Total	4	735	391
Volume Left	0	0	0
Volume Right	4	0	24
cSH	470	1700	1700
Volume to Capacity	0.01	0.43	0.23
Queue Length (ft)	1	0	0
Control Delay (s)	12.7	0.0	0.0
Lane LOS	B		
Approach Delay (s)	12.7	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A

Movement	EBT	EBR	EBR2	WBT	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	14	12	16	11	11	11	11	12
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00		1.00		1.00	1.00	1.00	1.00	1.00	
Frt	0.99		0.85		1.00		1.00	1.00	1.00	1.00	0.85	
Flt Protected	1.00		1.00		0.95		1.00	0.95	0.95	1.00	1.00	
Satd. Flow (prot)	3389		1436		1766		2091	1745	1745	1801	1561	
Flt Permitted	1.00		1.00		0.19		1.00	0.95	0.95	1.00	1.00	
Satd. Flow (perm)	3389		1436		352		2091	1745	1745	1801	1561	
Volume (vph)	291	20	91	0	46	0	603	120	71	699	105	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.90	0.89	0.95	0.95	0.95	0.95	0.69
Adj. Flow (vph)	323	22	101	0	52	0	678	126	75	736	111	0
Lane Group Flow (vph)	345	0	101	0	52	0	678	126	75	736	111	0
Heavy Vehicles (%)	2%	2%	5%	0%	9%	0%	3%	0%	0%	2%	0%	0%
Turn Type			Perm		custom		custom	custom	Perm		Perm	
Protected Phases	4				5					6		
Permitted Phases			4		2		2	2 5 6	6		6	
Actuated Green, G (s)	10.6		10.6		51.4		51.4	51.4	42.4	42.4	42.4	
Effective Green, g (s)	12.6		12.6		53.4		53.4	53.4	44.4	44.4	44.4	
Actuated g/C Ratio	0.16		0.16		0.67		0.67	0.67	0.55	0.55	0.55	
Clearance Time (s)	6.0		6.0		6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)	2.5		2.5		2.5		2.5		2.5	2.5	2.5	
Lane Grp Cap (vph)	534		226		323		1396	1165	968	1000	866	
v/s Ratio Prot	c0.10				0.01					c0.41		
v/s Ratio Perm			0.07		0.10		c0.32	0.07	0.04		0.07	
v/c Ratio	0.65		0.45		0.16		0.49	0.11	0.08	0.74	0.13	
Uniform Delay, d1	31.6		30.5		8.6		6.5	4.8	8.3	13.4	8.5	
Progression Factor	0.82		0.41		0.63		0.55	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.3		1.0		0.2		1.1	0.0	0.2	4.8	0.3	
Delay (s)	28.2		13.7		5.6		4.8	4.8	8.4	18.2	8.8	
Level of Service	C		B		A		A	A	A	B	A	
Approach Delay (s)	24.9			0.0		4.8				14.9		0.0
Approach LOS	C			A		A				B		A

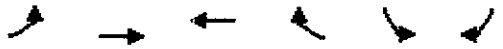
Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	B

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1014	0	0	0	0	111
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1102	0	0	0	0	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	46					
pX, platoon unblocked			0.94		0.94	0.94
vC, conflicting volume			1102		1102	367
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			970		970	184
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	84
cM capacity (veh/h)			660		234	773

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	367	367	367	121
Volume Left	0	0	0	0
Volume Right	0	0	0	121
cSH	1700	1700	1700	773
Volume to Capacity	0.22	0.22	0.22	0.16
Queue Length (ft)	0	0	0	14
Control Delay (s)	0.0	0.0	0.0	10.5
Lane LOS				B
Approach Delay (s)	0.0			10.5
Approach LOS				B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1065	61	0	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1158	66	0	1	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		727				
pX, platoon unblocked						
vC, conflicting volume	1				2382	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1				2382	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	29				100	100
cM capacity (veh/h)	1622				11	1085

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	772	452	1
Volume Left	772	386	0
Volume Right	0	0	1
cSH	1622	1622	1700
Volume to Capacity	0.71	0.71	0.00
Queue Length (ft)	168	168	0
Control Delay (s)	12.5	12.1	0.0
Lane LOS	B	B	
Approach Delay (s)	12.4		0.0
Approach LOS			

Intersection Summary			
Average Delay	12.4		
Intersection Capacity Utilization	43.8%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑					↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	596	421	0	0	0	568
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	648	458	0	0	0	617
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				795		
pX, platoon unblocked						
vC, conflicting volume			1105		877	553
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1105		877	553
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			627		288	477

Direction, Lane #	NB 1	NB 2	SW 1
Volume Total	432	674	617
Volume Left	0	0	0
Volume Right	0	458	617
cSH	1700	1700	477
Volume to Capacity	0.25	0.40	1.29
Queue Length (ft)	0	0	659
Control Delay (s)	0.0	0.0	172.6
Lane LOS			F
Approach Delay (s)	0.0		172.6
Approach LOS			F

Intersection Summary			
Average Delay	61.9		
Intersection Capacity Utilization	77.5%	ICU Level of Service	C

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	374	53	2	553	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	407	58	2	601	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			464		1041	435
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			464		1041	435
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1097		254	621

Direction, Lane #	NB 1	SB 1
Volume Total	464	603
Volume Left	0	2
Volume Right	58	0
cSH	1700	1097
Volume to Capacity	0.27	0.00
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.1
Lane LOS		A
Approach Delay (s)	0.0	0.1
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	49	0	0	376	549	172
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	53	0	0	409	597	187
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1099	690	784			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1099	690	784			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	100	100			
cM capacity (veh/h)	235	445	835			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	53	409	784
Volume Left	53	0	0
Volume Right	0	0	187
cSH	235	1700	1700
Volume to Capacity	0.23	0.24	0.46
Queue Length (ft)	21	0	0
Control Delay (s)	24.7	0.0	0.0
Lane LOS	C		
Approach Delay (s)	24.7	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	49	4	0	172	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	53	4	0	187	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	968					
pX, platoon unblocked						
vC, conflicting volume			58		242	55
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			58		242	55
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1547		746	1011

Direction, Lane #	EB 1	WB 1
Volume Total	58	187
Volume Left	0	0
Volume Right	4	0
cSH	1700	1700
Volume to Capacity	0.03	0.11
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	13.2%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	26	35	28	0	0	0	38	289	32	7	468	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	28	38	30	0	0	0	41	314	35	8	509	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	936	971	524	1003	970	332	540			349		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	936	971	524	1003	970	332	540			349		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	84	94	100	100	100	96			99		
cM capacity (veh/h)	236	241	553	177	242	710	1028			1210		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	97	0	41	349	548
Volume Left	28	0	41	0	8
Volume Right	30	0	0	35	32
cSH	291	1700	1028	1700	1210
Volume to Capacity	0.33	0.00	0.04	0.21	0.01
Queue Length (ft)	35	0	3	0	0
Control Delay (s)	23.4	0.0	8.6	0.0	0.2
Lane LOS	C	A	A		A
Approach Delay (s)	23.4	0.0	0.9		0.2
Approach LOS	C	A			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	0	1	20	109	1	39	19	315	68	2	480	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	1	22	118	1	42	21	342	74	2	522	14

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	23	120	42	21	416	538
Volume Left (vph)	0	118	0	21	0	2
Volume Right (vph)	22	0	42	0	74	14
Hadj (s)	-0.5	0.2	-0.6	0.2	-0.1	0.0
Departure Headway (s)	6.8	7.2	6.4	5.9	5.6	5.7
Degree Utilization, x	0.04	0.24	0.08	0.03	0.65	0.86
Capacity (veh/h)	467	465	521	587	617	615
Control Delay (s)	10.2	11.2	8.7	8.0	17.4	33.5
Approach Delay (s)	10.2	10.5		16.9		33.5
Approach LOS	B	B		C		D

Intersection Summary			
Delay	23.6		
HCM Level of Service	C		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	0	12	156	0	16	36	337	0	0	567	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	2	0	13	170	0	17	39	366	0	0	616	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								222				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1097	1080	327	766	1099	366	654			366		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1102	1084	327	755	1104	336	654			336		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	100	98	37	100	97	96			100		
cM capacity (veh/h)	149	197	669	270	192	630	929			1164		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	2	13	170	17	39	366	411	243
Volume Left	2	0	170	0	39	0	0	0
Volume Right	0	13	0	17	0	0	0	38
cSH	149	669	270	630	929	1700	1700	1700
Volume to Capacity	0.01	0.02	0.63	0.03	0.04	0.22	0.24	0.14
Queue Length (ft)	1	1	97	2	3	0	0	0
Control Delay (s)	29.5	10.5	38.5	10.9	9.0	0.0	0.0	0.0
Lane LOS	D	B	E	B	A			
Approach Delay (s)	13.2		36.0		0.9		0.0	
Approach LOS	B		E					

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00		1.00		0.95			0.95	
Frt	1.00		0.85	1.00		0.85		0.99			1.00	
Flt Protected	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1770		1583	1770		1583		3498			3524	
Flt Permitted	0.95		1.00	0.95		1.00		0.95			0.94	
Satd. Flow (perm)	1770		1583	1770		1583		3325			3308	
Volume (vph)	4	0	3	44	0	17	4	400	33	19	685	14
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	3	48	0	18	4	435	36	21	745	15
Lane Group Flow (vph)	4	0	3	48	0	18	0	475	0	0	781	0
Turn Type	custom		custom	custom		custom	Perm			Perm		
Protected Phases								2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	7.5		7.5	7.5		7.5		54.3			54.3	
Effective Green, g (s)	9.0		9.0	9.0		9.0		57.3			57.3	
Actuated g/C Ratio	0.12		0.12	0.12		0.12		0.77			0.77	
Clearance Time (s)	5.5		5.5	5.5		5.5		7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)	214		192	214		192		2564			2551	
v/s Ratio Prot												
v/s Ratio Perm	0.00		0.00	c0.03		0.01		0.14			c0.24	
v/c Ratio	0.02		0.02	0.22		0.09		0.19			0.31	
Uniform Delay, d1	28.8		28.7	29.5		29.0		2.3			2.5	
Progression Factor	1.00		1.00	1.00		1.00		1.00			1.00	
Incremental Delay, d2	0.0		0.0	0.5		0.2		0.0			0.1	
Delay (s)	28.8		28.8	30.0		29.2		2.3			2.6	
Level of Service	C		C	C		C		A			A	
Approach Delay (s)		28.8			29.8			2.3			2.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.29		
Actuated Cycle Length (s)	74.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.3%	ICU Level of Service	A

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	13	16	420	39	25	697
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	14	17	457	42	27	758
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			329			663
pX, platoon unblocked						
vC, conflicting volume	911	249			499	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	911	249			499	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	98			97	
cM capacity (veh/h)	267	750			1061	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	32	304	195	280	505
Volume Left	14	0	0	27	0
Volume Right	17	0	42	0	0
cSH	414	1700	1700	1061	1700
Volume to Capacity	0.08	0.18	0.11	0.03	0.30
Queue Length (ft)	6	0	0	2	0
Control Delay (s)	14.4	0.0	0.0	1.1	0.0
Lane LOS	B			A	
Approach Delay (s)	14.4	0.0		0.4	
Approach LOS	B				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frt	1.00	0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		1.00			0.99	1.00
Satd. Flow (prot)	1711	1848			1895	1335		1898			1796	1599
Flt Permitted	0.61	1.00			0.98	1.00		1.00			0.73	1.00
Satd. Flow (perm)	1099	1848			1866	1335		1898			1333	1599
Volume (vph)	162	206	29	8	152	42	0	204	2	81	293	367
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.90	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	193	245	35	9	167	46	0	249	2	84	305	382
Lane Group Flow (vph)	193	280	0	0	176	46	0	251	0	0	389	382
Heavy Vehicles (%)	2%	1%	0%	0%	0%	21%	0%	0%	0%	18%	1%	1%
Turn Type	D.P+P			Perm		pm+ov				D.P+P		custom
Protected Phases	1	1 2			2	3		4		3	3 4	1
Permitted Phases	2			2		2				4		4
Actuated Green, G (s)	37.1	42.1			27.5	31.1		19.3			22.9	28.9
Effective Green, g (s)	39.1	43.1			28.5	33.1		20.3			24.9	30.9
Actuated g/C Ratio	0.49	0.54			0.36	0.41		0.25			0.31	0.39
Clearance Time (s)	5.0				5.0	5.0		5.0				5.0
Vehicle Extension (s)	2.5				2.5	2.5		2.5				2.5
Lane Grp Cap (vph)	618	996			665	619		482			442	698
v/s Ratio Prot	0.04	0.15				0.00		0.13			c0.05	c0.07
v/s Ratio Perm	c0.11				0.09	0.03					c0.22	0.17
v/c Ratio	0.31	0.28			0.26	0.07		0.52			0.88	0.55
Uniform Delay, d1	11.8	10.0			18.3	14.2		25.7			26.1	19.1
Progression Factor	1.00	1.00			1.05	1.50		1.00			1.00	1.00
Incremental Delay, d2	0.2	0.1			1.0	0.0		0.8			18.0	0.7
Delay (s)	12.0	10.1			20.1	21.3		26.4			44.2	19.8
Level of Service	B	B			C	C		C			D	B
Approach Delay (s)		10.9			20.4			26.4			32.1	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.6%	ICU Level of Service	C

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	289	0	0	151	51	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	314	0	0	164	55	123
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	292			250		
pX, platoon unblocked						
vC, conflicting volume			314		478	314
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			314		478	314
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		90	83
cM capacity (veh/h)			1246		546	726

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	314	164	55	123
Volume Left	0	0	55	0
Volume Right	0	0	0	123
cSH	1700	1700	546	726
Volume to Capacity	0.18	0.10	0.10	0.17
Queue Length (ft)	0	0	8	15
Control Delay (s)	0.0	0.0	12.3	11.0
Lane LOS			B	B
Approach Delay (s)	0.0	0.0	11.4	
Approach LOS			B	

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	30.8%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	418	24	31	448	2	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	454	26	34	487	2	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				305		
pX, platoon unblocked					0.96	
vC, conflicting volume			480		1022	240
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			480		1023	240
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		99	95
cM capacity (veh/h)			1078		215	761

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	303	178	521	39
Volume Left	0	0	34	2
Volume Right	0	26	0	37
cSH	1700	1700	1078	667
Volume to Capacity	0.18	0.10	0.03	0.06
Queue Length (ft)	0	0	2	5
Control Delay (s)	0.0	0.0	0.9	10.7
Lane LOS			A	B
Approach Delay (s)	0.0		0.9	10.7
Approach LOS				B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	54.2%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	33	392	479	64	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	36	426	521	70	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			238			
pX, platoon unblocked	0.94				0.94	0.94
vC, conflicting volume	590				1053	555
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	565				1057	528
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				100	100
cM capacity (veh/h)	948				226	518

Direction, Lane #	EB 1	WB 1
Volume Total	462	590
Volume Left	36	0
Volume Right	0	70
cSH	948	1700
Volume to Capacity	0.04	0.35
Queue Length (ft)	3	0
Control Delay (s)	1.1	0.0
Lane LOS	A	
Approach Delay (s)	1.1	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	59.1%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	380	441	0	63	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	413	479	0	68	25
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			496			
pX, platoon unblocked	1.00				1.00	1.00
vC, conflicting volume	479				892	479
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	479				892	479
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				78	96
cM capacity (veh/h)	1082				312	586

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	413	479	93
Volume Left	0	0	68
Volume Right	0	0	25
cSH	1700	1700	357
Volume to Capacity	0.24	0.28	0.26
Queue Length (ft)	0	0	26
Control Delay (s)	0.0	0.0	18.6
Lane LOS			C
Approach Delay (s)	0.0	0.0	18.6
Approach LOS			C

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	37.2%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	303	9	50	393	10	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	329	10	54	427	11	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				661		
pX, platoon unblocked						
vC, conflicting volume			339		870	334
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			339		870	334
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		96	88
cM capacity (veh/h)			1220		308	708

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	339	482	95
Volume Left	0	54	11
Volume Right	10	0	84
cSH	1700	1220	616
Volume to Capacity	0.20	0.04	0.15
Queue Length (ft)	0	3	14
Control Delay (s)	0.0	1.3	11.9
Lane LOS		A	B
Approach Delay (s)	0.0	1.3	11.9
Approach LOS			B

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	59.2%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↱		↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	35	58	0	12	29	602	72	17	725	65
Peak Hour Factor	0.58	0.58	0.58	0.83	0.83	0.83	0.94	0.94	0.94	0.97	0.97	0.97
Hourly flow rate (veh/h)	0	0	60	70	0	14	31	640	77	18	747	67
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								266				
pX, platoon unblocked	0.77	0.77		0.77	0.77	0.77				0.77		
vC, conflicting volume	1564	1595	781	1617	1590	679	814			717		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1732	1772	781	1801	1766	583	814			633		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	100	100	85	0	100	96	96			98		
cM capacity (veh/h)	49	61	393	38	61	386	822			739		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	60	84	748	832
Volume Left	0	70	31	18
Volume Right	60	14	77	67
cSH	393	45	822	739
Volume to Capacity	0.15	1.88	0.04	0.02
Queue Length (ft)	13	215	3	2
Control Delay (s)	15.8	611.9	1.0	0.7
Lane LOS	C	F	A	A
Approach Delay (s)	15.8	611.9	1.0	0.7
Approach LOS	C	F		

Intersection Summary			
Average Delay	31.2		
Intersection Capacity Utilization	96.1%	ICU Level of Service	E

Movement	SBL	SBR	NWL	NWR	NEL	NER
Lane Configurations						
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Volume (veh/h)	41	818	32	92	595	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	45	889	35	100	647	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh)						
Upstream signal (ft)					198	
pX, platoon unblocked	0.76		0.76	0.76		
vC, conflicting volume	666		1635	657		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	559		1838	546		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	94		41	75		
cM capacity (veh/h)	766		59	407		

Direction, Lane #	SB 1	SB 2	NW 1	NW 2	NE 1
Volume Total	45	889	35	100	666
Volume Left	45	0	35	0	0
Volume Right	0	0	0	100	20
cSH	766	1700	59	407	1700
Volume to Capacity	0.06	0.52	0.59	0.25	0.39
Queue Length (ft)	5	0	60	24	0
Control Delay (s)	10.0	0.0	130.0	16.7	0.0
Lane LOS	A		F	C	
Approach Delay (s)	0.5		45.9		0.0
Approach LOS			E		

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	65.1%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL2	SWL	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.86			1.00		1.00	1.00			1.00	0.95
Flt Protected	0.95	1.00			0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1632			1805		1736	1881			1900	1752
Flt Permitted	1.00	1.00			1.00		0.31	1.00			1.00	1.00
Satd. Flow (perm)	1827	1632			1900		567	1881			1896	1752
Volume (vph)	196	3	41	3	0	0	26	480	5	4	607	258
Peak-hour factor, PHF	0.86	0.86	0.86	0.42	0.42	0.42	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	228	3	48	7	0	0	29	539	6	4	674	287
Lane Group Flow (vph)	228	51	0	0	7	0	29	545	0	0	678	287
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	4%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			Perm			Perm		custom
Protected Phases		3			4			2			6	
Permitted Phases	3			4			2			6		3 6
Actuated Green, G (s)	13.3	13.3			1.0		51.7	51.7			51.7	70.0
Effective Green, g (s)	14.3	14.3			1.0		52.7	52.7			52.7	71.0
Actuated g/C Ratio	0.18	0.18			0.01		0.66	0.66			0.66	0.89
Clearance Time (s)	5.0	5.0			4.0		5.0	5.0			5.0	
Vehicle Extension (s)	2.5	2.5			2.5		2.5	2.5			2.5	
Lane Grp Cap (vph)	327	292			24		374	1239			1249	1555
v/s Ratio Prot		0.03						0.29				
v/s Ratio Perm	c0.12				c0.00		0.05				c0.36	0.16
v/c Ratio	0.70	0.17			0.29		0.08	0.44			0.54	0.18
Uniform Delay, d1	30.8	27.8			39.1		4.9	6.6			7.3	0.6
Progression Factor	0.87	1.43			1.00		0.39	0.50			0.52	0.00
Incremental Delay, d2	3.5	0.1			4.9		0.4	1.0			1.5	0.0
Delay (s)	30.1	39.9			44.0		2.3	4.3			5.3	0.0
Level of Service	C	D			D		A	A			A	A
Approach Delay (s)		31.9			44.0		4.2				3.7	
Approach LOS		C			D		A				A	

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	F
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.99			0.97	
Flt Protected		0.98			1.00			0.99			1.00	
Satd. Flow (prot)		1815			1841			1841			1808	
Flt Permitted		0.73			0.98			0.92			0.98	
Satd. Flow (perm)		1347			1813			1700			1781	
Volume (vph)	138	266	34	9	269	22	43	293	14	12	267	72
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	150	289	37	10	292	24	47	318	15	13	290	78
Lane Group Flow (vph)	0	476	0	0	326	0	0	380	0	0	381	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		31.0			31.0			35.0			35.0	
Effective Green, g (s)		34.0			34.0			38.0			38.0	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
Clearance Time (s)		7.0			7.0			7.0			7.0	
Lane Grp Cap (vph)		572			771			808			846	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.18			c0.22			0.21	
v/c Ratio		0.83			0.42			0.47			0.45	
Uniform Delay, d1		20.5			16.1			14.2			14.0	
Progression Factor		1.00			0.70			1.00			1.00	
Incremental Delay, d2		13.3			1.7			2.0			1.7	
Delay (s)		33.7			12.9			16.2			15.8	
Level of Service		C			B			B			B	
Approach Delay (s)		33.7			12.9			16.2			15.8	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.5%	ICU Level of Service	E

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	22	427	417	4	4	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	24	464	453	4	4	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			638			
pX, platoon unblocked						
vC, conflicting volume	458				967	455
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	458				967	455
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	97
cM capacity (veh/h)	1103				276	605

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	488	458	25
Volume Left	24	0	4
Volume Right	0	4	21
cSH	1103	1700	501
Volume to Capacity	0.02	0.27	0.05
Queue Length (ft)	2	0	4
Control Delay (s)	0.6	0.0	12.6
Lane LOS	A		B
Approach Delay (s)	0.6	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	50	440	5	4	432	3	19	5	5	9	2	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	54	478	5	4	470	3	21	5	5	10	2	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					980							
pX, platoon unblocked												
vC, conflicting volume	473			484			1145	1071	481	1078	1072	471
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	473			484			1145	1071	481	1078	1072	471
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			86	97	99	95	99	88
cM capacity (veh/h)	1089			1079			147	209	585	183	209	593

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	538	477	32	86
Volume Left	54	4	21	10
Volume Right	5	3	5	74
cSH	1089	1079	179	455
Volume to Capacity	0.05	0.00	0.18	0.19
Queue Length (ft)	4	0	15	17
Control Delay (s)	1.4	0.1	29.3	14.7
Lane LOS	A	A	D	B
Approach Delay (s)	1.4	0.1	29.3	14.7
Approach LOS			D	B

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	69.3%	ICU Level of Service	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	63	8	4	102	9	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	68	9	4	111	10	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	1027					
pX, platoon unblocked						
vC, conflicting volume			77		188	68
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			77		188	68
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1521		799	995

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	68	9	115	11
Volume Left	0	0	4	10
Volume Right	0	9	0	1
cSH	1700	1700	1521	815
Volume to Capacity	0.04	0.01	0.00	0.01
Queue Length (ft)	0	0	0	1
Control Delay (s)	0.0	0.0	0.3	9.5
Lane LOS			A	A
Approach Delay (s)	0.0		0.3	9.5
Approach LOS				A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	16.3%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	12	52	106	19	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	13	57	115	21	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1242				
pX, platoon unblocked						
vC, conflicting volume	136				208	126
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	136				208	126
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	100
cM capacity (veh/h)	1448				773	925

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	70	136	2
Volume Left	13	0	1
Volume Right	0	21	1
cSH	1448	1700	842
Volume to Capacity	0.01	0.08	0.00
Queue Length (ft)	1	0	0
Control Delay (s)	1.5	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	1.5	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	17.3%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	45	10	70	81	25	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	49	11	76	88	27	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			60		295	54
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			60		295	54
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		96	98
cM capacity (veh/h)			1544		662	1013

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	60	164	49
Volume Left	0	76	27
Volume Right	11	0	22
cSH	1700	1544	783
Volume to Capacity	0.04	0.05	0.06
Queue Length (ft)	0	4	5
Control Delay (s)	0.0	3.7	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	3.7	9.9
Approach LOS			A

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	25.5%	ICU Level of Service	A

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	553	537	361	174	54
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (veh/h)	0	614	597	401	193	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1066				
pX, platoon unblocked					0.95	
vC, conflicting volume	998				1412	797
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	998				1433	797
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				0	84
cM capacity (veh/h)	694				140	386

Direction, Lane #	NB 1	SB 1	NE 1
Volume Total	614	998	253
Volume Left	0	0	193
Volume Right	0	401	60
cSH	694	1700	165
Volume to Capacity	0.00	0.59	1.53
Queue Length (ft)	0	0	418
Control Delay (s)	0.0	0.0	318.7
Lane LOS			F
Approach Delay (s)	0.0	0.0	318.7
Approach LOS			F

Intersection Summary			
Average Delay	43.3		
Intersection Capacity Utilization	76.9%	ICU Level of Service	C

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Sign Control	Stop				Stop			Stop			Stop	
Volume (veh/h)	32	138	3	251	214	12	4	322	35	10	171	174
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	35	150	3	273	233	13	4	350	38	11	186	189

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SE 1
Volume Total (vph)	185	3	518	392	386
Volume Left (vph)	35	0	273	4	11
Volume Right (vph)	0	3	13	38	189
Hadj (s)	0.1	-0.6	0.1	0.0	-0.3
Departure Headway (s)	8.6	7.9	7.1	7.3	7.3
Degree Utilization, x	0.44	0.01	1.03	0.80	0.79
Capacity (veh/h)	388	419	508	480	475
Control Delay (s)	16.9	9.8	74.4	33.3	32.3
Approach Delay (s)	16.8		74.4	33.3	32.3
Approach LOS	C		F	D	D

Intersection Summary			
Delay	45.3		
HCM Level of Service	E		
Intersection Capacity Utilization	96.1%	ICU Level of Service	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		4%			0%			0%			0%	
Volume (veh/h)	7	4	157	6	4	9	149	537	18	2	531	4
Peak Hour Factor	0.82	0.82	0.82	0.73	0.73	0.73	0.97	0.97	0.97	0.85	0.85	0.85
Hourly flow rate (veh/h)	9	5	191	8	5	12	154	554	19	2	625	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								739				
pX, platoon unblocked	0.90	0.90		0.90	0.90	0.90				0.90		
vC, conflicting volume	1508	1511	627	1696	1504	563	629			572		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1566	1570	627	1776	1562	513	629			523		
tC, single (s)	7.1	6.8	6.2	7.1	6.5	6.4	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.5	4.0	3.5	2.2			2.4		
p0 queue free %	87	93	60	72	94	97	84			100		
cM capacity (veh/h)	66	73	481	29	85	471	953			840		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	205	26	154	572	632
Volume Left	9	8	154	0	2
Volume Right	191	12	0	19	5
cSH	345	70	953	1700	840
Volume to Capacity	0.59	0.37	0.16	0.34	0.00
Queue Length (ft)	91	35	14	0	0
Control Delay (s)	29.5	84.2	9.5	0.0	0.1
Lane LOS	D	F	A		A
Approach Delay (s)	29.5	84.2	2.0		0.1
Approach LOS	D	F			

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	87.7%	ICU Level of Service	D

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	17	53	66	693	654	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	18	58	72	753	711	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked	0.94					
vC, conflicting volume	1234	714	716			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1189	714	716			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	85	92			
cM capacity (veh/h)	157	374	880			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	76	323	502	716
Volume Left	18	72	0	0
Volume Right	58	0	0	5
cSH	280	880	1700	1700
Volume to Capacity	0.27	0.08	0.30	0.42
Queue Length (ft)	27	7	0	0
Control Delay (s)	22.6	2.8	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	22.6	1.1		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	75.2%	ICU Level of Service	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	23	94	607	33	85	623
Peak Hour Factor	0.81	0.81	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	28	116	690	38	97	708
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			351			
pX, platoon unblocked	0.91	0.91			0.91	
vC, conflicting volume	1256	364			727	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1180	197			598	
tC, single (s)	7.3	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.8	3.3			2.2	
p0 queue free %	77	84			89	
cM capacity (veh/h)	122	742			879	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	144	460	267	333	472
Volume Left	28	0	0	97	0
Volume Right	116	0	38	0	0
cSH	371	1700	1700	879	1700
Volume to Capacity	0.39	0.27	0.16	0.11	0.28
Queue Length (ft)	45	0	0	9	0
Control Delay (s)	20.7	0.0	0.0	3.7	0.0
Lane LOS	C			A	
Approach Delay (s)	20.7	0.0		1.5	
Approach LOS	C				

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	61.4%	ICU Level of Service	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	30	85	15	610	638	14
Peak Hour Factor	0.76	0.76	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	39	112	17	693	725	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				267		
pX, platoon unblocked	0.89					
vC, conflicting volume	1114	370	741			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1008	370	741			
tC, single (s)	7.0	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	80	82	98			
cM capacity (veh/h)	193	624	875			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	151	248	462	483	258
Volume Left	39	17	0	0	0
Volume Right	112	0	0	0	16
cSH	394	875	1700	1700	1700
Volume to Capacity	0.38	0.02	0.27	0.28	0.15
Queue Length (ft)	44	1	0	0	0
Control Delay (s)	19.7	0.8	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	19.7	0.3		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	90	51	70	317	262	81
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	98	55	76	345	285	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				888		
pX, platoon unblocked						
vC, conflicting volume	826	329	373			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	826	329	373			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	69	92	94			
cM capacity (veh/h)	320	713	1186			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	153	421	373
Volume Left	98	76	0
Volume Right	55	0	88
cSH	400	1186	1700
Volume to Capacity	0.38	0.06	0.22
Queue Length (ft)	44	5	0
Control Delay (s)	19.5	2.0	0.0
Lane LOS	C	A	
Approach Delay (s)	19.5	2.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	61.5%	ICU Level of Service	B

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	134	17	53	281	156	289
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	146	18	58	305	170	314
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	526					
pX, platoon unblocked						
vC, conflicting volume			164		566	146
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		566	146
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		64	65
cM capacity (veh/h)			1414		466	901

Direction, Lane #	NB 1	NB 2	SB 1	NW 1	NW 2
Volume Total	146	18	363	170	314
Volume Left	0	0	58	170	0
Volume Right	0	18	0	0	314
cSH	1700	1700	1414	466	901
Volume to Capacity	0.09	0.01	0.04	0.36	0.35
Queue Length (ft)	0	0	3	41	39
Control Delay (s)	0.0	0.0	1.5	17.1	11.1
Lane LOS			A	C	B
Approach Delay (s)	0.0		1.5	13.2	
Approach LOS				B	

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	46.3%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	151	16	10	184	17	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	164	17	11	200	18	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	467					
pX, platoon unblocked						
vC, conflicting volume			182		395	173
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			182		395	173
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	99
cM capacity (veh/h)			1394		605	871

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	182	211	27
Volume Left	0	11	18
Volume Right	17	0	9
cSH	1700	1394	671
Volume to Capacity	0.11	0.01	0.04
Queue Length (ft)	0	1	3
Control Delay (s)	0.0	0.5	10.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.5	10.6
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	223	112	0	201	55	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	242	122	0	218	60	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		401				
pX, platoon unblocked					0.95	
vC, conflicting volume	218				607	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	218				585	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	82				84	100
cM capacity (veh/h)	1351				368	1085

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	364	218	60
Volume Left	242	0	60
Volume Right	0	218	0
cSH	1351	1700	368
Volume to Capacity	0.18	0.13	0.16
Queue Length (ft)	16	0	14
Control Delay (s)	6.0	0.0	16.7
Lane LOS	A		C
Approach Delay (s)	6.0	0.0	16.7
Approach LOS			C

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	40.0%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frt	1.00			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3512			3438	1745	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3512			3438	1745	
Volume (vph)	611	170	0	657	290	36
Peak-hour factor, PHF	0.88	0.88	0.90	0.88	0.92	0.92
Adj. Flow (vph)	694	193	0	747	315	39
Lane Group Flow (vph)	887	0	0	747	354	0
Heavy Vehicles (%)	3%	2%	0%	5%	3%	0%
Turn Type						
Protected Phases	1 2			1 2	3	
Permitted Phases						
Actuated Green, G (s)	45.3			45.3	15.9	
Effective Green, g (s)	47.3			47.3	17.9	
Actuated g/C Ratio	0.59			0.59	0.22	
Clearance Time (s)					6.0	
Vehicle Extension (s)					2.5	
Lane Grp Cap (vph)	2076			2033	390	
v/s Ratio Prot	c0.25			0.22	c0.20	
v/s Ratio Perm						
v/c Ratio	0.43			0.37	0.91	
Uniform Delay, d1	8.9			8.5	30.2	
Progression Factor	0.06			1.00	1.00	
Incremental Delay, d2	0.1			0.1	24.1	
Delay (s)	0.7			8.6	54.4	
Level of Service	A			A	D	
Approach Delay (s)	0.7			8.6	54.4	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	108	40	781	839	69
Peak Hour Factor	0.90	0.90	0.88	0.88	0.90	0.88
Hourly flow rate (veh/h)	0	120	45	888	932	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	0					
Upstream signal (ft)					69	
pX, platoon unblocked	0.89	0.89	0.89			
vC, conflicting volume	1506	505	1011			
vC1, stage 1 conf vol	971					
vC2, stage 2 conf vol	535					
vCu, unblocked vol	1445	319	888			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	80	93			
cM capacity (veh/h)	71	607	686			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	120	45	444	444	621	389
Volume Left	0	45	0	0	0	0
Volume Right	120	0	0	0	0	78
cSH	607	686	1700	1700	1700	1700
Volume to Capacity	0.20	0.07	0.26	0.26	0.37	0.23
Queue Length (ft)	18	5	0	0	0	0
Control Delay (s)	12.4	10.6	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.4	0.5			0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A

Movement	EBL	EBT	WBT	SET	NWL2	NWT	NWR	NEL
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	
Frt	1.00	1.00			1.00	1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00	
Satd. Flow (prot)	1805	1759			1595	3357	1538	
Flt Permitted	0.95	1.00			0.95	1.00	1.00	
Satd. Flow (perm)	1805	1759			1595	3357	1538	
Volume (vph)	57	129	0	0	484	786	149	0
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.92	0.92	0.92	0.90
Adj. Flow (vph)	67	152	0	0	526	854	162	0
Lane Group Flow (vph)	67	152	0	0	526	854	162	0
Heavy Vehicles (%)	0%	8%	0%	0%	3%	3%	5%	0%
Turn Type	Split				custom		Perm	
Protected Phases	3	3			1	1		
Permitted Phases					1		1	
Actuated Green, G (s)	15.9	15.9			34.3	34.3	34.3	
Effective Green, g (s)	17.9	17.9			36.3	36.3	36.3	
Actuated g/C Ratio	0.22	0.22			0.45	0.45	0.45	
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	
Vehicle Extension (s)	2.5	2.5			2.5	2.5	2.5	
Lane Grp Cap (vph)	404	394			724	1523	698	
v/s Ratio Prot	0.04	c0.09			c0.33	0.25		
v/s Ratio Perm							0.11	
v/c Ratio	0.17	0.39			0.73	0.56	0.23	
Uniform Delay, d1	25.0	26.4			17.8	16.0	13.3	
Progression Factor	1.19	1.05			1.59	1.03	1.39	
Incremental Delay, d2	0.1	0.4			5.5	1.3	0.7	
Delay (s)	29.8	28.1			33.9	17.9	19.2	
Level of Service	C	C			C	B	B	
Approach Delay (s)		28.6	0.0	0.0		23.5		0.0
Approach LOS		C	A	A		C		A

Intersection Summary			
HCM Average Control Delay	24.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	40.6%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Sign Control	Stop			Free			Free		Stop	
Grade	0%			0%			0%		0%	
Volume (veh/h)	0	0	0	0	0	0	806	65	371	113
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95
Hourly flow rate (veh/h)	0	0	0	0	0	0	867	70	391	119
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None								None	
Median storage veh)										
Upstream signal (ft)				965						
pX, platoon unblocked										
vC, conflicting volume	902	468	937			0			433	937
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	902	468	937			0			433	937
tC, single (s)	6.5	6.9	4.1			4.1			7.6	6.5
tC, 2 stage (s)										
tF (s)	4.0	3.3	2.2			2.2			3.5	4.0
p0 queue free %	100	100	100			100			22	55
cM capacity (veh/h)	280	547	740			1636			502	267

Direction, Lane #	SB 1	SB 2	SW 1	SW 2
Volume Total	578	359	391	119
Volume Left	0	0	391	0
Volume Right	0	70	0	0
cSH	1700	1700	502	267
Volume to Capacity	0.34	0.21	0.78	0.45
Queue Length (ft)	0	0	175	54
Control Delay (s)	0.0	0.0	33.1	28.9
Lane LOS			D	D
Approach Delay (s)	0.0		32.1	
Approach LOS			D	

Intersection Summary			
Average Delay	11.3		
Intersection Capacity Utilization	54.5%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	0	1150	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	0	0	1250	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				746		
pX, platoon unblocked						
vC, conflicting volume	1285	660	1321			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1285	660	1321			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	156	405	519			

Direction, Lane #	SB 1	SB 2
Volume Total	833	487
Volume Left	0	0
Volume Right	0	71
cSH	1700	1700
Volume to Capacity	0.49	0.29
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	40.1%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	22	0	0	1171	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	24	0	0	1273	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				174		
pX, platoon unblocked						
vC, conflicting volume	1283	647	1293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1283	647	1293			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	157	414	532			

Direction, Lane #	EB 1	SB 1	SB 2
Volume Total	24	849	445
Volume Left	0	0	0
Volume Right	24	0	21
cSH	414	1700	1700
Volume to Capacity	0.06	0.50	0.26
Queue Length (ft)	5	0	0
Control Delay (s)	14.2	0.0	0.0
Lane LOS	B		
Approach Delay (s)	14.2	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A

Movement	EBT	EBR	EBR2	WBT	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	14	12	16	12	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0		4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00		1.00		1.00		1.00	1.00	1.00	1.00
Frt	0.99		0.85		1.00		1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		1.00		0.95		1.00		0.95	0.95	1.00	1.00
Satd. Flow (prot)	3386		1436		1766		2091		1745	1745	1801	1561
Flt Permitted	1.00		1.00		0.12		1.00		0.95	0.95	1.00	1.00
Satd. Flow (perm)	3386		1436		224		2091		1745	1745	1801	1561
Volume (vph)	470	35	128	0	85	0	958	6	152	107	781	135
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.90	0.89	0.89	0.95	0.95	0.95	0.95
Adj. Flow (vph)	522	39	142	0	96	0	1076	7	160	113	822	142
Lane Group Flow (vph)	561	0	142	0	96	0	1083	0	160	113	822	142
Heavy Vehicles (%)	2%	2%	5%	0%	9%	0%	3%	0%	0%	0%	2%	0%
Turn Type			Perm		custom		custom		custom	Perm		Perm
Protected Phases	4				5						6	
Permitted Phases			4		2		2		2 5 6	6		6
Actuated Green, G (s)	11.0		11.0		51.0		51.0		51.0	41.0	41.0	41.0
Effective Green, g (s)	13.0		13.0		53.0		53.0		53.0	43.0	43.0	43.0
Actuated g/C Ratio	0.16		0.16		0.66		0.66		0.66	0.54	0.54	0.54
Clearance Time (s)	6.0		6.0		6.0		6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.5		2.5		2.5		2.5			2.5	2.5	2.5
Lane Grp Cap (vph)	550		233		264		1385		1156	938	968	839
v/s Ratio Prot	c0.17				0.03						c0.46	
v/s Ratio Perm			0.10		0.21		c0.52		0.09	0.06		0.09
v/c Ratio	1.02		0.61		0.36		0.78		0.14	0.12	0.85	0.17
Uniform Delay, d1	33.5		31.1		11.9		9.5		5.0	9.1	15.7	9.4
Progression Factor	0.88		0.71		0.68		0.66		1.00	1.00	1.00	1.00
Incremental Delay, d2	43.2		3.7		0.5		3.9		0.0	0.3	9.2	0.4
Delay (s)	72.8		25.9		8.7		10.1		5.1	9.4	25.0	9.8
Level of Service	E		C		A		B		A	A	C	A
Approach Delay (s)	63.4			0.0		10.0					19.2	
Approach LOS	E			A		B					B	

Intersection Summary			
HCM Average Control Delay	25.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	101.6%	ICU Level of Service	F

c Critical Lane Group

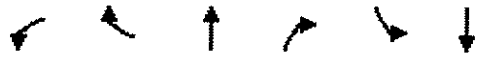
Movement	NWL
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.69
Adj. Flow (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	0.0
Approach LOS	A

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1580	0	0	0	0	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1717	0	0	0	0	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	46					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			1717		1717	572
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1518		1518	195
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	77
cM capacity (veh/h)			377		95	704

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	572	572	572	165
Volume Left	0	0	0	0
Volume Right	0	0	0	165
cSH	1700	1700	1700	704
Volume to Capacity	0.34	0.34	0.34	0.23
Queue Length (ft)	0	0	0	23
Control Delay (s)	0.0	0.0	0.0	11.7
Lane LOS				B
Approach Delay (s)	0.0			11.7
Approach LOS				B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	50.1%	ICU Level of Service	A



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	80	1721	13	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	87	1871	14	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1878	942			1885	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1878	942			1885	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	67			100	
cM capacity (veh/h)	63	264			314	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	87	1247	638
Volume Left	0	0	0
Volume Right	87	0	14
cSH	264	1700	1700
Volume to Capacity	0.33	0.73	0.38
Queue Length (ft)	35	0	0
Control Delay (s)	25.2	0.0	0.0
Lane LOS	D		
Approach Delay (s)	25.2	0.0	
Approach LOS	D		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	64.2%	ICU Level of Service	B

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1170	786	0	0	0	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1272	854	0	0	0	287
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				785		
pX, platoon unblocked						
vC, conflicting volume			2126		1699	1063
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2126		1699	1063
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			252		83	219

Direction, Lane #	NB 1	NB 2	SW 1
Volume Total	848	1278	287
Volume Left	0	0	0
Volume Right	0	854	287
cSH	1700	1700	219
Volume to Capacity	0.50	0.75	1.31
Queue Length (ft)	0	0	386
Control Delay (s)	0.0	0.0	211.5
Lane LOS			F
Approach Delay (s)	0.0		211.5
Approach LOS			F

Intersection Summary			
Average Delay	25.2		
Intersection Capacity Utilization	87.0%	ICU Level of Service	D

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	606	92	8	352	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	659	100	9	383	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			759		1109	709
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			759		1109	709
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	100
cM capacity (veh/h)			853		230	434

Direction, Lane #	NB 1	SB 1
Volume Total	759	391
Volume Left	0	9
Volume Right	100	0
cSH	1700	853
Volume to Capacity	0.45	0.01
Queue Length (ft)	0	1
Control Delay (s)	0.0	0.3
Lane LOS		A
Approach Delay (s)	0.0	0.3
Approach LOS		

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	166	0	3	580	334	186
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	180	0	3	630	363	202
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1101	464	565			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1101	464	565			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	23	100	100			
cM capacity (veh/h)	234	598	1007			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	180	634	565
Volume Left	180	3	0
Volume Right	0	0	202
cSH	234	1007	1700
Volume to Capacity	0.77	0.00	0.33
Queue Length (ft)	139	0	0
Control Delay (s)	58.4	0.1	0.0
Lane LOS	F	A	
Approach Delay (s)	58.4	0.1	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A

Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Volume (veh/h)	0	583	0	17	334	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	634	0	18	363	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	363		997	363		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	363		997	363		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	97		
cM capacity (veh/h)	1196		271	682		

Direction, Lane #	NB 1	SE 1	SW 1
Volume Total	634	18	363
Volume Left	0	0	0
Volume Right	0	18	0
cSH	1700	682	1700
Volume to Capacity	0.37	0.03	0.21
Queue Length (ft)	0	2	0
Control Delay (s)	0.0	10.4	0.0
Lane LOS		B	
Approach Delay (s)	0.0	10.4	0.0
Approach LOS		B	

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	42.6%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	44	29	0	0	0	70	525	39	7	569	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	14	48	32	0	0	0	76	571	42	8	618	53
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1383	1426	645	1460	1431	592	672			613		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1383	1426	645	1460	1431	592	672			613		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	61	93	100	100	100	92			99		
cM capacity (veh/h)	113	123	472	65	122	506	919			966		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	93	0	76	613	679
Volume Left	14	0	76	0	8
Volume Right	32	0	0	42	53
cSH	161	1700	919	1700	966
Volume to Capacity	0.58	0.00	0.08	0.36	0.01
Queue Length (ft)	76	0	7	0	1
Control Delay (s)	54.4	0.0	9.3	0.0	0.2
Lane LOS	F	A	A		A
Approach Delay (s)	54.4	0.0	1.0		0.2
Approach LOS	F	A			

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	84.0%	ICU Level of Service	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	12	3	43	108	4	48	47	572	113	3	568	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	13	3	47	117	4	52	51	622	123	3	617	27

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	63	122	52	51	745	648
Volume Left (vph)	13	117	0	51	0	3
Volume Right (vph)	47	0	52	0	123	27
Hadj (s)	-0.4	0.2	-0.6	0.2	-0.1	0.0
Departure Headway (s)	7.9	7.9	7.1	6.4	6.1	6.3
Degree Utilization, x	0.14	0.27	0.10	0.09	1.26	1.14
Capacity (veh/h)	445	443	494	555	601	572
Control Delay (s)	12.1	12.6	9.8	8.8	148.3	106.7
Approach Delay (s)	12.1	11.8		139.3		106.7
Approach LOS	B	B		F		F

Intersection Summary			
Delay	108.8		
HCM Level of Service	F		
Intersection Capacity Utilization	60.2%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	0	33	131	0	52	15	662	0	0	695	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	15	0	36	142	0	57	16	720	0	0	755	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								222				
pX, platoon unblocked	0.86	0.86		0.86	0.86	0.86				0.86		
vC, conflicting volume	1567	1510	380	1166	1513	720	761			720		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1658	1592	380	1192	1595	675	761			675		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	67	100	94	0	100	83	98			100		
cM capacity (veh/h)	46	90	617	114	89	342	847			787		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	36	142	57	16	720	504	257
Volume Left	15	0	142	0	16	0	0	0
Volume Right	0	36	0	57	0	0	0	5
cSH	46	617	114	342	847	1700	1700	1700
Volume to Capacity	0.33	0.06	1.25	0.17	0.02	0.42	0.30	0.15
Queue Length (ft)	29	5	232	15	1	0	0	0
Control Delay (s)	119.6	11.2	236.7	17.6	9.3	0.0	0.0	0.0
Lane LOS	F	B	F	C	A			
Approach Delay (s)	43.5		174.5		0.2		0.0	
Approach LOS	E		F					

Intersection Summary			
Average Delay	21.2		
Intersection Capacity Utilization	54.7%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00		1.00		0.95			0.95	
Frt	1.00		0.85	1.00		0.85		1.00			0.99	
Flt Protected	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1770		1583	1770		1583		3505			3499	
Flt Permitted	0.95		1.00	0.95		1.00		0.77			0.94	
Satd. Flow (perm)	1770		1583	1770		1583		2726			3283	
Volume (vph)	65	0	89	76	0	36	74	661	24	16	871	67
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	71	0	97	83	0	39	80	718	26	17	947	73
Lane Group Flow (vph)	71	0	97	83	0	39	0	824	0	0	1037	0
Turn Type	custom		custom	custom		custom	Perm			Perm		
Protected Phases								2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	8.5		8.5	8.5		8.5		36.3			36.3	
Effective Green, g (s)	10.0		10.0	10.0		10.0		39.3			39.3	
Actuated g/C Ratio	0.17		0.17	0.17		0.17		0.69			0.69	
Clearance Time (s)	5.5		5.5	5.5		5.5		7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)	309		276	309		276		1870			2252	
v/s Ratio Prot												
v/s Ratio Perm	0.04		c0.06	0.05		0.02		0.30			c0.32	
v/c Ratio	0.23		0.35	0.27		0.14		0.44			0.46	
Uniform Delay, d1	20.3		20.8	20.5		20.0		4.1			4.1	
Progression Factor	1.00		1.00	1.00		1.00		1.00			1.00	
Incremental Delay, d2	0.4		0.8	0.5		0.2		0.2			0.1	
Delay (s)	20.7		21.6	21.0		20.3		4.2			4.3	
Level of Service	C		C	C		C		A			A	
Approach Delay (s)		21.2			20.7			4.2			4.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	B

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	29	36	668	39	21	971
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	32	39	726	42	23	1055
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			329			663
pX, platoon unblocked	0.95					
vC, conflicting volume	1321	384			768	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1283	384			768	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	78	94			97	
cM capacity (veh/h)	145	614			841	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	71	484	284	375	704
Volume Left	32	0	0	23	0
Volume Right	39	0	42	0	0
cSH	251	1700	1700	841	1700
Volume to Capacity	0.28	0.28	0.17	0.03	0.41
Queue Length (ft)	28	0	0	2	0
Control Delay (s)	24.9	0.0	0.0	0.9	0.0
Lane LOS	C			A	
Approach Delay (s)	24.9	0.0		0.3	
Approach LOS	C				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	46.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frt	1.00	0.98			1.00	0.85		0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		1.00			0.99	1.00
Satd. Flow (prot)	1711	1845			1891	1335		1885			1794	1599
Flt Permitted	0.53	1.00			0.94	1.00		1.00			0.57	1.00
Satd. Flow (perm)	946	1845			1786	1335		1885			1041	1599
Volume (vph)	270	305	48	18	170	70	0	287	17	89	315	446
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.90	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	321	363	57	20	187	77	0	350	21	93	328	465
Lane Group Flow (vph)	321	420	0	0	207	77	0	371	0	0	421	465
Heavy Vehicles (%)	2%	1%	0%	0%	0%	21%	0%	0%	0%	18%	1%	1%
Turn Type	D.P+P			Perm		pm+ov				D.P+P		custom
Protected Phases	1	1 2			2	3		4		3	3 4	1
Permitted Phases	2			2		2				4		4
Actuated Green, G (s)	32.7	37.7			20.8	25.6		22.5			27.3	34.4
Effective Green, g (s)	34.7	38.7			21.8	27.6		23.5			29.3	36.4
Actuated g/C Ratio	0.43	0.48			0.27	0.34		0.29			0.37	0.45
Clearance Time (s)	5.0				5.0	5.0		5.0				5.0
Vehicle Extension (s)	2.5				2.5	2.5		2.5				2.5
Lane Grp Cap (vph)	534	893			487	527		554			436	807
v/s Ratio Prot	0.10	0.23				0.01		0.20			c0.07	c0.09
v/s Ratio Perm	c0.16				0.12	0.05					c0.28	0.20
v/c Ratio	0.60	0.47			0.43	0.15		0.67			0.97	0.58
Uniform Delay, d1	15.9	13.8			23.9	18.1		24.8			24.9	16.1
Progression Factor	1.00	1.00			1.08	1.93		1.00			1.00	1.00
Incremental Delay, d2	1.6	0.3			2.7	0.1		2.8			34.0	0.8
Delay (s)	17.5	14.1			28.6	35.1		27.6			58.8	16.9
Level of Service	B	B			C	D		C			E	B
Approach Delay (s)		15.6			30.4			27.6			36.8	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	27.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.9%	ICU Level of Service	D

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	289	0	0	220	38	222
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	314	0	0	239	41	241
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	292			250		
pX, platoon unblocked						
vC, conflicting volume			314		553	314
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			314		553	314
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		92	67
cM capacity (veh/h)			1246		494	726

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	314	239	41	241
Volume Left	0	0	41	0
Volume Right	0	0	0	241
cSH	1700	1700	494	726
Volume to Capacity	0.18	0.14	0.08	0.33
Queue Length (ft)	0	0	7	36
Control Delay (s)	0.0	0.0	13.0	12.4
Lane LOS			B	B
Approach Delay (s)	0.0	0.0	12.5	
Approach LOS			B	

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱			
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	64	650	496	130	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	70	707	539	141	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			238			
pX, platoon unblocked	0.92				0.92	0.92
vC, conflicting volume	680				1455	610
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	653				1495	576
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				100	100
cM capacity (veh/h)	859				114	476

Direction, Lane #	EB 1	WB 1
Volume Total	776	680
Volume Left	70	0
Volume Right	0	141
cSH	859	1700
Volume to Capacity	0.08	0.40
Queue Length (ft)	7	0
Control Delay (s)	2.1	0.0
Lane LOS	A	
Approach Delay (s)	2.1	0.0
Approach LOS		

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	84.7%	ICU Level of Service	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	648	38	39	457	5	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	704	41	42	497	5	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				305		
pX, platoon unblocked					0.95	
vC, conflicting volume			746		1307	373
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			746		1323	373
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		96	89
cM capacity (veh/h)			858		133	625

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	470	276	539	77
Volume Left	0	0	42	5
Volume Right	0	41	0	72
cSH	1700	1700	858	496
Volume to Capacity	0.28	0.16	0.05	0.16
Queue Length (ft)	0	0	4	14
Control Delay (s)	0.0	0.0	1.3	13.6
Lane LOS			A	B
Approach Delay (s)	0.0		1.3	13.6
Approach LOS				B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	64.0%	ICU Level of Service	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	511	460	0	142	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	555	500	0	154	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			496			
pX, platoon unblocked						
vC, conflicting volume	500				1055	500
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	500				1055	500
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				38	86
cM capacity (veh/h)	1064				250	571

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	555	500	236
Volume Left	0	0	154
Volume Right	0	0	82
cSH	1700	1700	310
Volume to Capacity	0.33	0.29	0.76
Queue Length (ft)	0	0	146
Control Delay (s)	0.0	0.0	45.7
Lane LOS			E
Approach Delay (s)	0.0	0.0	45.7
Approach LOS			E

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	422	10	79	456	11	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	459	11	86	496	12	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				661		
pX, platoon unblocked						
vC, conflicting volume			470		1132	464
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			470		1132	464
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		94	84
cM capacity (veh/h)			1092		207	598

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	470	582	109
Volume Left	0	86	12
Volume Right	11	0	97
cSH	1700	1092	495
Volume to Capacity	0.28	0.08	0.22
Queue Length (ft)	0	6	21
Control Delay (s)	0.0	2.1	14.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.1	14.3
Approach LOS			B

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	72.3%	ICU Level of Service	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	0	33	103	2	1	9	858	87	31	686	19
Peak Hour Factor	0.58	0.58	0.58	0.83	0.83	0.83	0.94	0.94	0.94	0.97	0.97	0.97
Hourly flow rate (veh/h)	3	0	57	124	2	1	10	913	93	32	707	20
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								266				
pX, platoon unblocked	0.60	0.60		0.60	0.60	0.60				0.60		
vC, conflicting volume	1761	1805	717	1806	1769	959	727			1005		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2262	2335	717	2337	2275	932	727			1009		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	77	100	87	0	89	99	99			92		
cM capacity (veh/h)	15	21	428	12	22	190	886			419		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	60	128	1015	32	727
Volume Left	3	124	10	32	0
Volume Right	57	1	93	0	20
cSH	167	12	886	419	1700
Volume to Capacity	0.36	10.25	0.01	0.08	0.43
Queue Length (ft)	38	Err	1	6	0
Control Delay (s)	38.2	Err	0.3	14.3	0.0
Lane LOS	E	F	A	B	
Approach Delay (s)	38.2	Err	0.3	0.6	
Approach LOS	E	F			

Intersection Summary			
Average Delay	652.5		
Intersection Capacity Utilization	84.2%	ICU Level of Service	D

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	80	30	153	742	954	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	87	33	166	807	1037	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					185	
pX, platoon unblocked	0.58	0.58	0.58			
vC, conflicting volume	2195	1055	1074			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3053	1095	1127			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	78	54			
cM capacity (veh/h)	4	151	361			

Direction, Lane #	WB 1	WB 2	SB 1	SB 2	NE 1
Volume Total	87	33	166	807	1074
Volume Left	87	0	166	0	0
Volume Right	0	33	0	0	37
cSH	4	151	361	1700	1700
Volume to Capacity	19.95	0.22	0.46	0.47	0.63
Queue Length (ft)	Err	20	59	0	0
Control Delay (s)	Err	35.3	23.2	0.0	0.0
Lane LOS	F	E	C		
Approach Delay (s)	7281.6		4.0		0.0
Approach LOS	F				

Intersection Summary			
Average Delay	403.7		
Intersection Capacity Utilization	83.7%	ICU Level of Service	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL	SWR
Lane Configurations										
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0					4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00					1.00	1.00	1.00	1.00
Frt	1.00	0.85					1.00	1.00	1.00	0.95
Flt Protected	0.95	1.00					0.95	1.00	1.00	1.00
Satd. Flow (prot)	1736	1615					1736	1881	1900	1752
Flt Permitted	1.00	1.00					0.30	1.00	1.00	1.00
Satd. Flow (perm)	1827	1615					548	1881	1900	1752
Volume (vph)	271	0	44	0	0	0	42	733	664	216
Peak-hour factor, PHF	0.86	0.86	0.86	0.42	0.42	0.42	0.89	0.89	0.90	0.90
Adj. Flow (vph)	315	0	51	0	0	0	47	824	738	240
Lane Group Flow (vph)	315	51	0	0	0	0	47	824	738	240
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	4%	1%	0%	3%
Turn Type	Perm			Perm			Perm			custom
Protected Phases		3			4			2	6	
Permitted Phases	3			4			2			3 6
Actuated Green, G (s)	14.7	14.7					55.3	55.3	55.3	80.0
Effective Green, g (s)	15.7	15.7					56.3	56.3	56.3	80.0
Actuated g/C Ratio	0.20	0.20					0.70	0.70	0.70	1.00
Clearance Time (s)	5.0	5.0					5.0	5.0	5.0	
Vehicle Extension (s)	2.5	2.5					2.5	2.5	2.5	
Lane Grp Cap (vph)	359	317					386	1324	1337	1752
v/s Ratio Prot		0.03						c0.44	0.39	
v/s Ratio Perm	c0.17						0.09			0.14
v/c Ratio	0.88	0.16					0.12	0.62	0.55	0.14
Uniform Delay, d1	31.2	26.7					3.8	6.2	5.7	0.0
Progression Factor	0.92	1.00					0.49	0.73	0.58	1.00
Incremental Delay, d2	13.6	0.1					0.6	2.1	1.5	0.0
Delay (s)	42.3	26.8					2.5	6.7	4.9	0.0
Level of Service	D	C					A	A	A	A
Approach Delay (s)		40.2			0.0		6.5		3.7	
Approach LOS		D			A		A		A	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	119.3%	ICU Level of Service	G

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			1.00			0.97	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		1816			1837			1838			1806	
Flt Permitted		0.86			0.96			0.84			0.99	
Satd. Flow (perm)		1571			1774			1565			1793	
Volume (vph)	105	334	53	14	219	21	66	307	14	8	366	106
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	363	58	15	238	23	72	334	15	9	398	115
Lane Group Flow (vph)	0	535	0	0	276	0	0	421	0	0	522	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		31.0			31.0			35.0			35.0	
Effective Green, g (s)		34.0			34.0			38.0			38.0	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
Clearance Time (s)		7.0			7.0			7.0			7.0	
Lane Grp Cap (vph)		668			754			743			852	
v/s Ratio Prot												
v/s Ratio Perm		c0.34			0.16			0.27			c0.29	
v/c Ratio		0.80			0.37			0.57			0.61	
Uniform Delay, d1		20.0			15.7			15.1			15.6	
Progression Factor		1.00			0.71			1.00			1.00	
Incremental Delay, d2		9.8			1.4			3.1			3.3	
Delay (s)		29.8			12.6			18.2			18.8	
Level of Service		C			B			B			B	
Approach Delay (s)		29.8			12.6			18.2			18.8	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.9%	ICU Level of Service	F

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	20	509	414	8	7	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	22	553	450	9	8	39
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			652			
pX, platoon unblocked						
vC, conflicting volume	459				1051	454
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	459				1051	454
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				97	94
cM capacity (veh/h)	1102				246	606

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	575	459	47
Volume Left	22	0	8
Volume Right	0	9	39
cSH	1102	1700	489
Volume to Capacity	0.02	0.27	0.10
Queue Length (ft)	2	0	8
Control Delay (s)	0.5	0.0	13.1
Lane LOS	A		B
Approach Delay (s)	0.5	0.0	13.1
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	55.7%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	70	510	19	7	415	21	11	10	10	8	17	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	76	554	21	8	451	23	12	11	11	9	18	63
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					986							
pX, platoon unblocked												
vC, conflicting volume	474			575			1267	1206	565	1211	1205	462
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	474			575			1267	1206	565	1211	1205	462
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			99			89	94	98	94	89	89
cM capacity (veh/h)	1088			998			113	169	525	140	170	599

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	651	482	34	90
Volume Left	76	8	12	9
Volume Right	21	23	11	63
cSH	1088	998	176	326
Volume to Capacity	0.07	0.01	0.19	0.28
Queue Length (ft)	6	1	17	28
Control Delay (s)	1.8	0.2	30.2	20.2
Lane LOS	A	A	D	C
Approach Delay (s)	1.8	0.2	30.2	20.2
Approach LOS			D	C

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	75.9%	ICU Level of Service	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	174	12	4	146	8	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	189	13	4	159	9	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	1027					
pX, platoon unblocked						
vC, conflicting volume			202		357	189
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			202		357	189
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1370		640	853

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	189	13	163	12
Volume Left	0	0	4	9
Volume Right	0	13	0	3
cSH	1700	1700	1370	686
Volume to Capacity	0.11	0.01	0.00	0.02
Queue Length (ft)	0	0	0	1
Control Delay (s)	0.0	0.0	0.2	10.3
Lane LOS			A	B
Approach Delay (s)	0.0		0.2	10.3
Approach LOS				B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	20.0%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	5	172	134	1	19	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	5	187	146	1	21	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1242				
pX, platoon unblocked						
vC, conflicting volume	147				344	146
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147				344	146
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				97	98
cM capacity (veh/h)	1435				650	901

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	192	147	38
Volume Left	5	0	21
Volume Right	0	1	17
cSH	1435	1700	745
Volume to Capacity	0.00	0.09	0.05
Queue Length (ft)	0	0	4
Control Delay (s)	0.2	0.0	10.1
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	10.1
Approach LOS			B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	20.8%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	152	28	37	112	17	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	165	30	40	122	18	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			196		383	180
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			196		383	180
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	92
cM capacity (veh/h)			1377		602	862

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	196	162	84
Volume Left	0	40	18
Volume Right	30	0	65
cSH	1700	1377	787
Volume to Capacity	0.12	0.03	0.11
Queue Length (ft)	0	2	9
Control Delay (s)	0.0	2.1	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	2.1	10.1
Approach LOS			B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	31.1%	ICU Level of Service	A

2014 No-Build Conditions

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	376	374	430	137	53
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (veh/h)	0	418	416	478	152	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1066				
pX, platoon unblocked						
vC, conflicting volume	893				1072	654
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	893				1072	654
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				38	87
cM capacity (veh/h)	759				244	466

Direction, Lane #	NB 1	SB 1	NE 1
Volume Total	418	893	211
Volume Left	0	0	152
Volume Right	0	478	59
cSH	759	1700	281
Volume to Capacity	0.00	0.53	0.75
Queue Length (ft)	0	0	138
Control Delay (s)	0.0	0.0	48.0
Lane LOS			E
Approach Delay (s)	0.0	0.0	48.0
Approach LOS			E

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	69.8%	ICU Level of Service	B

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Sign Control	Stop				Stop			Stop			Stop	
Volume (veh/h)	18	122	1	106	175	9	4	367	24	14	115	197
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	20	133	1	115	190	10	4	399	26	15	125	214

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SE 1
Volume Total (vph)	152	1	315	429	354
Volume Left (vph)	20	0	115	4	15
Volume Right (vph)	0	1	10	26	214
Hadj (s)	0.1	-0.6	0.1	0.0	-0.3
Departure Headway (s)	7.4	6.8	6.5	6.2	6.2
Degree Utilization, x	0.31	0.00	0.57	0.73	0.61
Capacity (veh/h)	427	465	524	556	539
Control Delay (s)	12.6	8.6	17.5	24.3	18.7
Approach Delay (s)	12.6		17.5	24.3	18.7
Approach LOS	B		C	C	C

Intersection Summary			
Delay	19.6		
HCM Level of Service	C		
Intersection Capacity Utilization	83.3%	ICU Level of Service	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		4%			0%			0%			0%	
Volume (veh/h)	2	4	123	9	6	21	124	352	12	4	367	3
Peak Hour Factor	0.82	0.82	0.82	0.73	0.73	0.73	0.97	0.97	0.97	0.85	0.85	0.85
Hourly flow rate (veh/h)	2	5	150	12	8	29	128	363	12	5	432	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								739				
pX, platoon unblocked												
vC, conflicting volume	1094	1074	434	1220	1069	369	435			375		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1094	1074	434	1220	1069	369	435			375		
tC, single (s)	7.1	6.8	6.2	7.1	6.5	6.4	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.5	4.0	3.5	2.2			2.4		
p0 queue free %	98	97	76	88	96	95	89			100		
cM capacity (veh/h)	162	176	620	107	197	636	1124			1068		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	157	49	128	375	440
Volume Left	2	12	128	0	5
Volume Right	150	29	0	12	4
cSH	553	244	1124	1700	1068
Volume to Capacity	0.28	0.20	0.11	0.22	0.00
Queue Length (ft)	29	18	10	0	0
Control Delay (s)	14.1	23.5	8.6	0.0	0.1
Lane LOS	B	C	A		A
Approach Delay (s)	14.1	23.5	2.2		0.1
Approach LOS	B	C			

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	63.0%	ICU Level of Service	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	8	43	51	562	589	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	9	47	55	611	640	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				522		
pX, platoon unblocked						
vC, conflicting volume	1060	643	647			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1060	643	647			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	96	89	94			
cM capacity (veh/h)	206	416	935			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	55	259	407	647
Volume Left	9	55	0	0
Volume Right	47	0	0	7
cSH	359	935	1700	1700
Volume to Capacity	0.15	0.06	0.24	0.38
Queue Length (ft)	14	5	0	0
Control Delay (s)	16.9	2.4	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	16.9	0.9		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	44.1%	ICU Level of Service	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	38	88	415	9	36	486
Peak Hour Factor	0.81	0.81	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	47	109	472	10	41	552
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			351			
pX, platoon unblocked	1.00	1.00			1.00	
vC, conflicting volume	835	241			482	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	834	240			481	
tC, single (s)	7.3	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.8	3.3			2.2	
p0 queue free %	81	86			96	
cM capacity (veh/h)	253	767			1070	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	156	314	167	225	368
Volume Left	47	0	0	41	0
Volume Right	109	0	10	0	0
cSH	475	1700	1700	1070	1700
Volume to Capacity	0.33	0.18	0.10	0.04	0.22
Queue Length (ft)	35	0	0	3	0
Control Delay (s)	16.2	0.0	0.0	1.8	0.0
Lane LOS	C			A	
Approach Delay (s)	16.2	0.0		0.7	
Approach LOS	C				

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	27	41	33	424	439	56
Peak Hour Factor	0.76	0.76	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	36	54	38	482	499	64
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				267		
pX, platoon unblocked	0.96					
vC, conflicting volume	847	281	562			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	793	281	562			
tC, single (s)	7.0	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	87	92	96			
cM capacity (veh/h)	282	713	1019			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	89	198	321	333	230
Volume Left	36	38	0	0	0
Volume Right	54	0	0	0	64
cSH	443	1019	1700	1700	1700
Volume to Capacity	0.20	0.04	0.19	0.20	0.14
Queue Length (ft)	19	3	0	0	0
Control Delay (s)	15.2	1.9	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	15.2	0.7		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	63	36	65	181	263	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	68	39	71	197	286	118
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				889		
pX, platoon unblocked						
vC, conflicting volume	683	345	404			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	683	345	404			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	82	94	94			
cM capacity (veh/h)	389	698	1154			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	108	267	404
Volume Left	68	71	0
Volume Right	39	0	118
cSH	464	1154	1700
Volume to Capacity	0.23	0.06	0.24
Queue Length (ft)	22	5	0
Control Delay (s)	15.1	2.6	0.0
Lane LOS	C	A	
Approach Delay (s)	15.1	2.6	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	52.7%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	107	4	36	278	172	138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	116	4	39	302	187	150
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	533					
pX, platoon unblocked						
vC, conflicting volume			121		497	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			121		497	116
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		64	84
cM capacity (veh/h)			1467		518	936

Direction, Lane #	NB 1	NB 2	SB 1	NW 1	NW 2
Volume Total	116	4	341	187	150
Volume Left	0	0	39	187	0
Volume Right	0	4	0	0	150
cSH	1700	1700	1467	518	936
Volume to Capacity	0.07	0.00	0.03	0.36	0.16
Queue Length (ft)	0	0	2	41	14
Control Delay (s)	0.0	0.0	1.1	15.8	9.6
Lane LOS			A	C	A
Approach Delay (s)	0.0		1.1	13.0	
Approach LOS				B	

Intersection Summary			
Average Delay	6.0		
Intersection Capacity Utilization	41.8%	ICU Level of Service	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	0	310	2	1	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	337	2	1	42
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	383	338			339	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	383	338			339	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	619	704			1220	

Direction, Lane #	NB 1	SB 1
Volume Total	339	43
Volume Left	0	1
Volume Right	2	0
cSH	1700	1220
Volume to Capacity	0.20	0.00
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.2
Lane LOS		A
Approach Delay (s)	0.0	0.2
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	63	10	11	182	6	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	68	11	12	198	7	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	467					
pX, platoon unblocked						
vC, conflicting volume			79		296	74
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			79		296	74
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	100
cM capacity (veh/h)			1519		690	988

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	79	210	9
Volume Left	0	12	7
Volume Right	11	0	2
cSH	1700	1519	746
Volume to Capacity	0.05	0.01	0.01
Queue Length (ft)	0	1	1
Control Delay (s)	0.0	0.5	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	0.5	9.9
Approach LOS			A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	23.0%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	81	43	0	188	30	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	88	47	0	204	33	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		401				
pX, platoon unblocked						
vC, conflicting volume	204				223	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	204				223	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				95	100
cM capacity (veh/h)	1367				716	1085

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	135	204	33
Volume Left	88	0	33
Volume Right	0	204	0
cSH	1367	1700	716
Volume to Capacity	0.06	0.12	0.05
Queue Length (ft)	5	0	4
Control Delay (s)	5.3	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	5.3	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	26.7%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frt	1.00			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3513			3438	1747	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3513			3438	1747	
Volume (vph)	384	119	0	536	286	29
Peak-hour factor, PHF	0.88	0.88	0.90	0.88	0.92	0.92
Adj. Flow (vph)	436	135	0	609	311	32
Lane Group Flow (vph)	571	0	0	609	343	0
Heavy Vehicles (%)	3%	2%	0%	5%	3%	0%
Turn Type						
Protected Phases	1 2			1 2	3	
Permitted Phases						
Actuated Green, G (s)	45.5			45.5	15.7	
Effective Green, g (s)	47.5			47.5	17.7	
Actuated g/C Ratio	0.59			0.59	0.22	
Clearance Time (s)					6.0	
Vehicle Extension (s)					2.5	
Lane Grp Cap (vph)	2086			2041	387	
v/s Ratio Prot	0.16			c0.18	c0.20	
v/s Ratio Perm						
v/c Ratio	0.27			0.30	0.89	
Uniform Delay, d1	7.9			8.0	30.2	
Progression Factor	0.03			1.00	1.00	
Incremental Delay, d2	0.0			0.1	20.7	
Delay (s)	0.3			8.1	50.9	
Level of Service	A			A	D	
Approach Delay (s)	0.3			8.1	50.9	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	45	17	503	528	51
Peak Hour Factor	0.90	0.90	0.88	0.88	0.90	0.88
Hourly flow rate (veh/h)	0	50	19	572	587	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	0					
Upstream signal (ft)					69	
pX, platoon unblocked	0.93	0.93	0.93			
vC, conflicting volume	940	322	645			
vC1, stage 1 conf vol	616					
vC2, stage 2 conf vol	324					
vCu, unblocked vol	859	194	541			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	93	98			
cM capacity (veh/h)	185	762	964			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	50	19	286	286	391	254
Volume Left	0	19	0	0	0	0
Volume Right	50	0	0	0	0	58
cSH	762	964	1700	1700	1700	1700
Volume to Capacity	0.07	0.02	0.17	0.17	0.23	0.15
Queue Length (ft)	5	2	0	0	0	0
Control Delay (s)	10.1	8.8	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	10.1	0.3			0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A

Movement	EBL	EBT	WBT	SET	NWL2	NWT	NWR	NEL
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	
Frt	1.00	1.00			1.00	1.00	0.85	
Flt Protected	0.95	1.00			0.95	0.99	1.00	
Satd. Flow (prot)	1805	1759			1595	3337	1538	
Flt Permitted	0.95	1.00			0.95	0.99	1.00	
Satd. Flow (perm)	1805	1759			1595	3337	1538	
Volume (vph)	18	53	0	0	569	530	45	0
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.92	0.92	0.92	0.90
Adj. Flow (vph)	21	62	0	0	618	576	49	0
Lane Group Flow (vph)	21	62	0	0	537	657	49	0
Heavy Vehicles (%)	0%	8%	0%	0%	3%	3%	5%	0%
Turn Type	Split				custom		Perm	
Protected Phases	3	3			1	1		
Permitted Phases					1		1	
Actuated Green, G (s)	15.7	15.7			34.5	34.5	34.5	
Effective Green, g (s)	17.7	17.7			36.5	36.5	36.5	
Actuated g/C Ratio	0.22	0.22			0.46	0.46	0.46	
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	
Vehicle Extension (s)	2.5	2.5			2.5	2.5	2.5	
Lane Grp Cap (vph)	399	389			728	1523	702	
v/s Ratio Prot	0.01	c0.04			c0.34	0.20		
v/s Ratio Perm							0.03	
v/c Ratio	0.05	0.16			0.74	0.43	0.07	
Uniform Delay, d1	24.5	25.1			17.8	14.7	12.2	
Progression Factor	1.12	1.06			1.48	1.04	1.21	
Incremental Delay, d2	0.0	0.1			6.5	0.9	0.2	
Delay (s)	27.5	26.7			32.9	16.2	14.9	
Level of Service	C	C			C	B	B	
Approach Delay (s)		26.9	0.0	0.0		23.4		0.0
Approach LOS		C	A	A		C		A

Intersection Summary			
HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Sign Control	Stop			Free			Free		Stop	
Grade	0%			0%			0%		0%	
Volume (veh/h)	0	0	0	0	0	0	773	35	439	130
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95
Hourly flow rate (veh/h)	0	0	0	0	0	0	831	38	462	137
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None								None	
Median storage veh)										
Upstream signal (ft)				965						
pX, platoon unblocked										
vC, conflicting volume	850	434	869			0			416	869
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	850	434	869			0			416	869
tC, single (s)	6.5	6.9	4.1			4.1			7.6	6.5
tC, 2 stage (s)										
tF (s)	4.0	3.3	2.2			2.2			3.5	4.0
p0 queue free %	100	100	100			100			11	53
cM capacity (veh/h)	300	575	784			1636			516	292

Direction, Lane #	SB 1	SB 2	SW 1	SW 2
Volume Total	554	315	462	137
Volume Left	0	0	462	0
Volume Right	0	38	0	0
cSH	1700	1700	516	292
Volume to Capacity	0.33	0.19	0.89	0.47
Queue Length (ft)	0	0	255	59
Control Delay (s)	0.0	0.0	46.3	27.7
Lane LOS			E	D
Approach Delay (s)	0.0		42.1	
Approach LOS			E	

Intersection Summary			
Average Delay	17.2		
Intersection Capacity Utilization	56.4%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	0	1152	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	0	0	1252	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				746		
pX, platoon unblocked						
vC, conflicting volume	1280	654	1309			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1280	654	1309			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	157	409	525			

Direction, Lane #	EB 1	SB 1	SB 2
Volume Total	0	835	474
Volume Left	0	0	0
Volume Right	0	0	57
cSH	1700	1700	1700
Volume to Capacity	0.00	0.49	0.28
Queue Length (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	4	0	0	1120	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	4	0	0	1217	26
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				174		
pX, platoon unblocked						
vC, conflicting volume	1230	622	1243			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1230	622	1243			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	170	430	556			

Direction, Lane #	EB 1	SB 1	SB 2
Volume Total	4	812	432
Volume Left	0	0	0
Volume Right	4	0	26
cSH	430	1700	1700
Volume to Capacity	0.01	0.48	0.25
Queue Length (ft)	1	0	0
Control Delay (s)	13.5	0.0	0.0
Lane LOS	B		
Approach Delay (s)	13.5	0.0	
Approach LOS	B		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A

Movement	EBT	EBR	EBR2	WBT	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	14	12	16	11	11	11	11	12
Total Lost time (s)	4.0		4.0		4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00		1.00		1.00	1.00	1.00	1.00	1.00	
Frt	0.99		0.85		1.00		1.00	1.00	1.00	1.00	0.85	
Flt Protected	1.00		1.00		0.95		1.00	0.95	0.95	1.00	1.00	
Satd. Flow (prot)	3389		1436		1766		2091	1745	1745	1801	1561	
Flt Permitted	1.00		1.00		0.14		1.00	0.95	0.95	1.00	1.00	
Satd. Flow (perm)	3389		1436		259		2091	1745	1745	1801	1561	
Volume (vph)	321	22	101	0	51	0	666	133	78	772	116	0
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.90	0.89	0.95	0.95	0.95	0.95	0.69
Adj. Flow (vph)	357	24	112	0	57	0	748	140	82	813	122	0
Lane Group Flow (vph)	381	0	112	0	57	0	748	140	82	813	122	0
Heavy Vehicles (%)	2%	2%	5%	0%	9%	0%	3%	0%	0%	2%	0%	0%
Turn Type			Perm		custom		custom	custom	Perm		Perm	
Protected Phases	4				5					6		
Permitted Phases			4		2		2	2 5 6	6		6	
Actuated Green, G (s)	10.8		10.8		51.2		51.2	51.2	42.2	42.2	42.2	
Effective Green, g (s)	12.8		12.8		53.2		53.2	53.2	44.2	44.2	44.2	
Actuated g/C Ratio	0.16		0.16		0.66		0.66	0.66	0.55	0.55	0.55	
Clearance Time (s)	6.0		6.0		6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)	2.5		2.5		2.5		2.5		2.5	2.5	2.5	
Lane Grp Cap (vph)	542		230		266		1391	1160	964	995	862	
v/s Ratio Prot	c0.11				0.01					c0.45		
v/s Ratio Perm			0.08		0.13		c0.36	0.08	0.05		0.08	
v/c Ratio	0.70		0.49		0.21		0.54	0.12	0.09	0.82	0.14	
Uniform Delay, d1	31.8		30.6		10.6		7.0	4.9	8.4	14.6	8.7	
Progression Factor	0.79		0.33		0.69		0.61	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.7		1.1		0.3		1.4	0.0	0.2	7.4	0.3	
Delay (s)	28.8		11.2		7.6		5.7	4.9	8.6	22.0	9.0	
Level of Service	C		B		A		A	A	A	C	A	
Approach Delay (s)	24.8			0.0		5.8				17.6		0.0
Approach LOS	C			A		A				B		A

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	C

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1014	0	0	0	0	123
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1102	0	0	0	0	134
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	46					
pX, platoon unblocked						
vC, conflicting volume			1102		1102	367
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1102		1102	367
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	79
cM capacity (veh/h)			629		206	630

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	367	367	367	134
Volume Left	0	0	0	0
Volume Right	0	0	0	134
cSH	1700	1700	1700	630
Volume to Capacity	0.22	0.22	0.22	0.21
Queue Length (ft)	0	0	0	20
Control Delay (s)	0.0	0.0	0.0	12.3
Lane LOS				B
Approach Delay (s)	0.0			12.3
Approach LOS				B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	36.2%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1176	67	0	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1278	73	0	1	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		727				
pX, platoon unblocked						
vC, conflicting volume	1				2629	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1				2629	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	21				100	100
cM capacity (veh/h)	1622				6	1085

Direction, Lane #	EB 1	EB 2	WB 1
Volume Total	852	499	1
Volume Left	852	426	0
Volume Right	0	0	1
cSH	1622	1622	1700
Volume to Capacity	0.79	0.79	0.00
Queue Length (ft)	230	230	0
Control Delay (s)	14.9	14.5	0.0
Lane LOS	B	B	
Approach Delay (s)	14.7		0.0
Approach LOS			

Intersection Summary			
Average Delay	14.7		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	658	464	0	0	0	627
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	715	504	0	0	0	682
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				795		
pX, platoon unblocked						
vC, conflicting volume			1220		967	610
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1220		967	610
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			568		252	438

Direction, Lane #	NB 1	NB 2	SW 1
Volume Total	477	743	682
Volume Left	0	0	0
Volume Right	0	504	682
cSH	1700	1700	438
Volume to Capacity	0.28	0.44	1.56
Queue Length (ft)	0	0	933
Control Delay (s)	0.0	0.0	285.3
Lane LOS			F
Approach Delay (s)	0.0		285.3
Approach LOS			F

Intersection Summary			
Average Delay	102.3		
Intersection Capacity Utilization	84.8%	ICU Level of Service	D

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	413	59	2	611	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	449	64	2	664	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			513		1149	481
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			513		1149	481
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1052		219	585

Direction, Lane #	NB 1	SB 1
Volume Total	513	666
Volume Left	0	2
Volume Right	64	0
cSH	1700	1052
Volume to Capacity	0.30	0.00
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.1
Lane LOS		A
Approach Delay (s)	0.0	0.1
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	39.6%	ICU Level of Service	A

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	54	0	0	415	606	190
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	59	0	0	451	659	207
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1213	762	865			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1213	762	865			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	71	100	100			
cM capacity (veh/h)	201	405	778			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	59	451	865
Volume Left	59	0	0
Volume Right	0	0	207
cSH	201	1700	1700
Volume to Capacity	0.29	0.27	0.51
Queue Length (ft)	29	0	0
Control Delay (s)	30.2	0.0	0.0
Lane LOS	D		
Approach Delay (s)	30.2	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	57.2%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	54	4	0	190	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	59	4	0	207	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	968					
pX, platoon unblocked						
vC, conflicting volume			63		267	61
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			63		267	61
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1540		722	1004

Direction, Lane #	EB 1	WB 1
Volume Total	63	207
Volume Left	0	0
Volume Right	4	0
cSH	1700	1700
Volume to Capacity	0.04	0.12
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	14.2%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔				↱	↰	↑			↔	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	29	39	31	0	0	0	42	319	35	8	517	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	32	42	34	0	0	0	46	347	38	9	562	35
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1035	1073	579	1109	1071	366	597			385		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1035	1073	579	1109	1071	366	597			385		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	80	93	100	100	100	95			99		
cM capacity (veh/h)	201	208	515	142	209	679	980			1174		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	108	0	46	385	605
Volume Left	32	0	46	0	9
Volume Right	34	0	0	38	35
cSH	253	1700	980	1700	1174
Volume to Capacity	0.43	0.00	0.05	0.23	0.01
Queue Length (ft)	50	0	4	0	1
Control Delay (s)	29.4	0.0	8.9	0.0	0.2
Lane LOS	D	A	A		A
Approach Delay (s)	29.4	0.0	0.9		0.2
Approach LOS	D	A			

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	0	1	22	120	1	43	21	348	75	2	530	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	1	24	130	1	47	23	378	82	2	576	15

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	25	132	47	23	460	593
Volume Left (vph)	0	130	0	23	0	2
Volume Right (vph)	24	0	47	0	82	15
Hadj (s)	-0.5	0.2	-0.6	0.2	-0.1	0.0
Departure Headway (s)	7.2	7.4	6.6	6.1	5.8	5.9
Degree Utilization, x	0.05	0.27	0.09	0.04	0.74	0.97
Capacity (veh/h)	453	458	512	571	602	593
Control Delay (s)	10.6	12.0	9.1	8.2	22.6	54.1
Approach Delay (s)	10.6	11.2		21.9		54.1
Approach LOS	B	B		C		F

Intersection Summary			
Delay	35.1		
HCM Level of Service	E		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	0	13	172	0	17	40	372	0	0	626	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	2	0	14	187	0	18	43	404	0	0	680	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								222				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1211	1193	361	846	1214	404	723			404		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1223	1204	361	837	1226	372	723			372		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	98	19	100	97	95			100		
cM capacity (veh/h)	120	165	635	231	160	593	875			1122		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	2	14	187	18	43	404	454	269
Volume Left	2	0	187	0	43	0	0	0
Volume Right	0	14	0	18	0	0	0	42
cSH	120	635	231	593	875	1700	1700	1700
Volume to Capacity	0.02	0.02	0.81	0.03	0.05	0.24	0.27	0.16
Queue Length (ft)	1	2	151	2	4	0	0	0
Control Delay (s)	35.7	10.8	64.2	11.3	9.3	0.0	0.0	0.0
Lane LOS	E	B	F	B	A			
Approach Delay (s)	14.1		59.4		0.9		0.0	
Approach LOS	B		F					

Intersection Summary			
Average Delay	9.2		
Intersection Capacity Utilization	43.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00		1.00		0.95			0.95	
Frt	1.00		0.85	1.00		0.85		0.99			1.00	
Flt Protected	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1770		1583	1770		1583		3498			3525	
Flt Permitted	0.95		1.00	0.95		1.00		0.95			0.93	
Satd. Flow (perm)	1770		1583	1770		1583		3326			3300	
Volume (vph)	4	0	3	49	0	19	4	442	36	21	757	15
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	0	3	53	0	21	4	480	39	23	823	16
Lane Group Flow (vph)	4	0	3	53	0	21	0	523	0	0	862	0
Turn Type	custom		custom	custom		custom	Perm			Perm		
Protected Phases								2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	7.5		7.5	7.5		7.5		54.8			54.8	
Effective Green, g (s)	9.0		9.0	9.0		9.0		57.8			57.8	
Actuated g/C Ratio	0.12		0.12	0.12		0.12		0.77			0.77	
Clearance Time (s)	5.5		5.5	5.5		5.5		7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)	213		190	213		190		2570			2550	
v/s Ratio Prot												
v/s Ratio Perm	0.00		0.00	c0.03		0.01		0.16			c0.26	
v/c Ratio	0.02		0.02	0.25		0.11		0.20			0.34	
Uniform Delay, d1	29.0		29.0	29.8		29.3		2.3			2.6	
Progression Factor	1.00		1.00	1.00		1.00		1.00			1.00	
Incremental Delay, d2	0.0		0.0	0.6		0.3		0.0			0.1	
Delay (s)	29.0		29.0	30.4		29.6		2.3			2.7	
Level of Service	C		C	C		C		A			A	
Approach Delay (s)		29.0			30.2			2.3			2.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	4.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	40.6%	ICU Level of Service	A

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	14	18	464	43	28	770
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	15	20	504	47	30	837
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			329			663
pX, platoon unblocked	0.99					
vC, conflicting volume	1007	276			551	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	996	276			551	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	97			97	
cM capacity (veh/h)	231	722			1015	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	35	336	215	309	558
Volume Left	15	0	0	30	0
Volume Right	20	0	47	0	0
cSH	375	1700	1700	1015	1700
Volume to Capacity	0.09	0.20	0.13	0.03	0.33
Queue Length (ft)	8	0	0	2	0
Control Delay (s)	15.6	0.0	0.0	1.1	0.0
Lane LOS	C			A	
Approach Delay (s)	15.6	0.0		0.4	
Approach LOS	C				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frt	1.00	0.98			1.00	0.85		1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		1.00			0.99	1.00
Satd. Flow (prot)	1711	1849			1895	1335		1898			1796	1599
Flt Permitted	0.57	1.00			0.98	1.00		1.00			0.73	1.00
Satd. Flow (perm)	1022	1849			1861	1335		1898			1319	1599
Volume (vph)	179	228	32	9	168	46	0	225	2	89	324	405
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.90	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	213	271	38	10	185	51	0	274	2	93	338	422
Lane Group Flow (vph)	213	309	0	0	195	51	0	276	0	0	431	422
Heavy Vehicles (%)	2%	1%	0%	0%	0%	21%	0%	0%	0%	18%	1%	1%
Turn Type	D.P+P			Perm		pm+ov				D.P+P		custom
Protected Phases	1	1 2			2	3		4		3	3 4	1
Permitted Phases	2			2		2				4		4
Actuated Green, G (s)	34.4	39.4			24.1	27.7		22.0			25.6	32.3
Effective Green, g (s)	36.4	40.4			25.1	29.7		23.0			27.6	34.3
Actuated g/C Ratio	0.45	0.50			0.31	0.37		0.29			0.34	0.43
Clearance Time (s)	5.0				5.0	5.0		5.0				5.0
Vehicle Extension (s)	2.5				2.5	2.5		2.5				2.5
Lane Grp Cap (vph)	562	934			584	562		546			482	766
v/s Ratio Prot	0.05	0.17				0.01		0.15			c0.05	c0.08
v/s Ratio Perm	c0.12				0.10	0.03					c0.26	0.19
v/c Ratio	0.38	0.33			0.33	0.09		0.51			0.89	0.55
Uniform Delay, d1	13.6	11.8			21.0	16.4		23.8			24.8	17.1
Progression Factor	1.00	1.00			1.05	1.57		1.00			1.00	1.00
Incremental Delay, d2	0.3	0.2			1.5	0.1		0.5			18.6	0.7
Delay (s)	13.9	11.9			23.6	25.7		24.3			43.5	17.8
Level of Service	B	B			C	C		C			D	B
Approach Delay (s)		12.7			24.1			24.3			30.8	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	C

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	319	0	0	167	56	125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	347	0	0	182	61	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	292			250		
pX, platoon unblocked						
vC, conflicting volume			347		528	347
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			347		528	347
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		88	80
cM capacity (veh/h)			1212		511	696

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	347	182	61	136
Volume Left	0	0	61	0
Volume Right	0	0	0	136
cSH	1700	1700	511	696
Volume to Capacity	0.20	0.11	0.12	0.20
Queue Length (ft)	0	0	10	18
Control Delay (s)	0.0	0.0	13.0	11.4
Lane LOS			B	B
Approach Delay (s)	0.0	0.0	11.9	
Approach LOS			B	

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	462	27	34	495	2	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	502	29	37	538	2	41
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				305		
pX, platoon unblocked					0.94	
vC, conflicting volume			532		1129	266
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			532		1137	266
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		99	94
cM capacity (veh/h)			1032		177	732

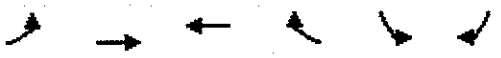
Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	335	197	575	43
Volume Left	0	0	37	2
Volume Right	0	29	0	41
cSH	1700	1700	1032	633
Volume to Capacity	0.20	0.12	0.04	0.07
Queue Length (ft)	0	0	3	6
Control Delay (s)	0.0	0.0	1.0	11.1
Lane LOS			A	B
Approach Delay (s)	0.0		1.0	11.1
Approach LOS				B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	58.5%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	37	433	529	71	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	40	471	575	77	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			238			
pX, platoon unblocked	0.93				0.93	0.93
vC, conflicting volume	652				1165	614
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	625				1178	583
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				100	100
cM capacity (veh/h)	887				187	475

Direction, Lane #	EB 1	WB 1
Volume Total	511	652
Volume Left	40	0
Volume Right	0	77
cSH	887	1700
Volume to Capacity	0.05	0.38
Queue Length (ft)	4	0
Control Delay (s)	1.3	0.0
Lane LOS	A	
Approach Delay (s)	1.3	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	68.6%	ICU Level of Service	B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	420	487	0	70	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	457	529	0	76	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			496			
pX, platoon unblocked	0.98				0.98	0.98
vC, conflicting volume	529				986	529
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	520				986	520
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				72	95
cM capacity (veh/h)	1025				269	545

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	457	529	103
Volume Left	0	0	76
Volume Right	0	0	27
cSH	1700	1700	311
Volume to Capacity	0.27	0.31	0.33
Queue Length (ft)	0	0	35
Control Delay (s)	0.0	0.0	22.2
Lane LOS			C
Approach Delay (s)	0.0	0.0	22.2
Approach LOS			C

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	335	10	55	434	11	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	364	11	60	472	12	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				661		
pX, platoon unblocked						
vC, conflicting volume			375		961	370
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			375		961	370
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		96	86
cM capacity (veh/h)			1183		270	676

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	375	532	104
Volume Left	0	60	12
Volume Right	11	0	92
cSH	1700	1183	577
Volume to Capacity	0.22	0.05	0.18
Queue Length (ft)	0	4	16
Control Delay (s)	0.0	1.4	12.6
Lane LOS		A	B
Approach Delay (s)	0.0	1.4	12.6
Approach LOS			B

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	64.3%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	39	64	0	13	32	665	63	19	846	72
Peak Hour Factor	0.58	0.58	0.58	0.83	0.83	0.83	0.94	0.94	0.94	0.97	0.97	0.97
Hourly flow rate (veh/h)	0	0	67	77	0	16	34	707	67	20	872	74
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								266				
pX, platoon unblocked	0.73	0.73		0.73	0.73	0.73				0.73		
vC, conflicting volume	1765	1791	909	1825	1795	741	946			774		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2042	2077	909	2123	2082	647	946			693		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	100	100	80	0	100	95	95			97		
cM capacity (veh/h)	28	37	332	20	37	338	733			670		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	67	93	809	966
Volume Left	0	77	34	20
Volume Right	67	16	67	74
cSH	332	23	733	670
Volume to Capacity	0.20	3.95	0.05	0.03
Queue Length (ft)	19	Err	4	2
Control Delay (s)	18.6	Err	1.3	0.9
Lane LOS	C	F	A	A
Approach Delay (s)	18.6	Err	1.3	0.9
Approach LOS	C	F		

Intersection Summary			
Average Delay	481.1		
Intersection Capacity Utilization	113.1%	ICU Level of Service	G

Movement	SBL	SBR	NWL	NWR	NEL	NER
Lane Configurations						
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Volume (veh/h)	45	865	35	102	658	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	49	940	38	111	715	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh)						
Upstream signal (ft)					198	
pX, platoon unblocked	0.72		0.72	0.72		
vC, conflicting volume	737		1764	726		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	633		2066	618		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	93		4	68		
cM capacity (veh/h)	681		40	351		

Direction, Lane #	SB 1	SB 2	NW 1	NW 2	NE 1
Volume Total	49	940	38	111	737
Volume Left	49	0	38	0	0
Volume Right	0	0	0	111	22
cSH	681	1700	40	351	1700
Volume to Capacity	0.07	0.55	0.96	0.32	0.43
Queue Length (ft)	6	0	92	33	0
Control Delay (s)	10.7	0.0	282.8	19.9	0.0
Lane LOS	B		F	C	
Approach Delay (s)	0.5		87.1		0.0
Approach LOS			F		

Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	68.2%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL2	SWL	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.86			1.00		1.00	1.00			1.00	0.95
Flt Protected	0.95	1.00			0.95		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1631			1805		1736	1881			1900	1752
Flt Permitted	1.00	1.00			1.00		0.27	1.00			1.00	1.00
Satd. Flow (perm)	1827	1631			1900		486	1881			1896	1752
Volume (vph)	217	3	45	3	0	0	29	530	6	4	671	285
Peak-hour factor, PHF	0.86	0.86	0.86	0.42	0.42	0.42	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	252	3	52	7	0	0	33	596	7	4	746	317
Lane Group Flow (vph)	252	55	0	0	7	0	33	603	0	0	750	317
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	4%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			Perm			Perm		custom
Protected Phases		3			4			2			6	
Permitted Phases	3			4			2			6		3 6
Actuated Green, G (s)	13.7	13.7			1.0		51.3	51.3			51.3	70.0
Effective Green, g (s)	14.7	14.7			1.0		52.3	52.3			52.3	71.0
Actuated g/C Ratio	0.18	0.18			0.01		0.65	0.65			0.65	0.89
Clearance Time (s)	5.0	5.0			4.0		5.0	5.0			5.0	
Vehicle Extension (s)	2.5	2.5			2.5		2.5	2.5			2.5	
Lane Grp Cap (vph)	336	300			24		318	1230			1240	1555
v/s Ratio Prot		0.03						0.32				
v/s Ratio Perm	c0.14				c0.00		0.07				c0.40	0.18
v/c Ratio	0.75	0.18			0.29		0.10	0.49			0.60	0.20
Uniform Delay, d1	30.9	27.6			39.1		5.1	7.1			7.9	0.6
Progression Factor	0.85	1.41			1.00		0.37	0.49			0.60	0.00
Incremental Delay, d2	3.4	0.1			4.9		0.6	1.2			2.0	0.0
Delay (s)	29.8	38.9			44.0		2.5	4.7			6.7	0.0
Level of Service	C	D			D		A	A			A	A
Approach Delay (s)		31.4			44.0		4.6				4.7	
Approach LOS		C			D		A				A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.5%	ICU Level of Service	F

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.99			0.97	
Flt Protected		0.98			1.00			0.99			1.00	
Satd. Flow (prot)		1815			1842			1842			1808	
Flt Permitted		0.69			0.98			0.91			0.98	
Satd. Flow (perm)		1279			1809			1687			1779	
Volume (vph)	152	294	38	10	297	24	47	324	15	13	295	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	320	41	11	323	26	51	352	16	14	321	87
Lane Group Flow (vph)	0	526	0	0	360	0	0	419	0	0	422	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		31.0			31.0			35.0			35.0	
Effective Green, g (s)		34.0			34.0			38.0			38.0	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
Clearance Time (s)		7.0			7.0			7.0			7.0	
Lane Grp Cap (vph)		544			769			801			845	
v/s Ratio Prot												
v/s Ratio Perm		c0.41			0.20			c0.25			0.24	
v/c Ratio		0.97			0.47			0.52			0.50	
Uniform Delay, d1		22.5			16.5			14.7			14.5	
Progression Factor		1.00			0.70			1.00			1.00	
Incremental Delay, d2		31.2			2.0			2.4			2.1	
Delay (s)		53.7			13.5			17.1			16.6	
Level of Service		D			B			B			B	
Approach Delay (s)		53.7			13.5			17.1			16.6	
Approach LOS		D			B			B			B	

Intersection Summary			
HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	106.3%	ICU Level of Service	F

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	24	472	461	4	4	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	26	513	501	4	4	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			638			
pX, platoon unblocked						
vC, conflicting volume	505				1068	503
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	505				1068	503
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				98	96
cM capacity (veh/h)	1059				239	568

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	539	505	27
Volume Left	26	0	4
Volume Right	0	4	23
cSH	1059	1700	466
Volume to Capacity	0.02	0.30	0.06
Queue Length (ft)	2	0	5
Control Delay (s)	0.7	0.0	13.2
Lane LOS	A		B
Approach Delay (s)	0.7	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	57.8%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	55	486	6	4	477	3	21	6	6	10	2	75
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	60	528	7	4	518	3	23	7	7	11	2	82
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					980							
pX, platoon unblocked												
vC, conflicting volume	522			535			1262	1182	532	1190	1183	520
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	522			535			1262	1182	532	1190	1183	520
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			81	96	99	93	99	85
cM capacity (veh/h)	1045			1033			118	178	548	151	178	556

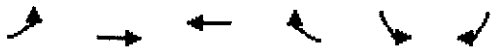
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	595	526	36	95
Volume Left	60	4	23	11
Volume Right	7	3	7	82
cSH	1045	1033	148	409
Volume to Capacity	0.06	0.00	0.24	0.23
Queue Length (ft)	5	0	22	22
Control Delay (s)	1.5	0.1	36.8	16.4
Lane LOS	A	A	E	C
Approach Delay (s)	1.5	0.1	36.8	16.4
Approach LOS			E	C

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	75.5%	ICU Level of Service	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	69	9	4	113	10	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	75	10	4	123	11	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	1027					
pX, platoon unblocked						
vC, conflicting volume			85		207	75
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			85		207	75
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1512		780	986

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	75	10	127	12
Volume Left	0	0	4	11
Volume Right	0	10	0	1
cSH	1700	1700	1512	795
Volume to Capacity	0.04	0.01	0.00	0.02
Queue Length (ft)	0	0	0	1
Control Delay (s)	0.0	0.0	0.3	9.6
Lane LOS			A	A
Approach Delay (s)	0.0		0.3	9.6
Approach LOS				A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	17.0%	ICU Level of Service	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	13	57	117	21	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	14	62	127	23	1	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1242				
pX, platoon unblocked						
vC, conflicting volume	150				229	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	150				229	139
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	100
cM capacity (veh/h)	1431				752	910

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	76	150	2
Volume Left	14	0	1
Volume Right	0	23	1
cSH	1431	1700	823
Volume to Capacity	0.01	0.09	0.00
Queue Length (ft)	1	0	0
Control Delay (s)	1.5	0.0	9.4
Lane LOS	A		A
Approach Delay (s)	1.5	0.0	9.4
Approach LOS			A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	50	11	77	89	28	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	54	12	84	97	30	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			66		324	60
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			66		324	60
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		95	98
cM capacity (veh/h)			1535		633	1005

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	66	180	54
Volume Left	0	84	30
Volume Right	12	0	24
cSH	1700	1535	756
Volume to Capacity	0.04	0.05	0.07
Queue Length (ft)	0	4	6
Control Delay (s)	0.0	3.7	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	3.7	10.1
Approach LOS			B

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	26.4%	ICU Level of Service	A

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	611	593	399	191	60
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (veh/h)	0	679	659	443	212	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1066				
pX, platoon unblocked					0.92	
vC, conflicting volume	1102				1559	881
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1102				1611	881
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				0	81
cM capacity (veh/h)	633				105	346

Direction, Lane #	NB 1	SB 1	NE 1
Volume Total	679	1102	279
Volume Left	0	0	212
Volume Right	0	443	67
cSH	633	1700	126
Volume to Capacity	0.00	0.65	2.21
Queue Length (ft)	0	0	588
Control Delay (s)	0.0	0.0	624.8
Lane LOS			F
Approach Delay (s)	0.0	0.0	624.8
Approach LOS			F

Intersection Summary			
Average Delay	84.6		
Intersection Capacity Utilization	84.2%	ICU Level of Service	D

Movement	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations												
Sign Control	Stop				Stop			Stop			Stop	
Volume (veh/h)	35	152	3	277	236	13	4	356	39	11	189	192
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	38	165	3	301	257	14	4	387	42	12	205	209

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SE 1
Volume Total (vph)	203	3	572	434	426
Volume Left (vph)	38	0	301	4	12
Volume Right (vph)	0	3	14	42	209
Hadj (s)	0.1	-0.6	0.1	0.0	-0.3
Departure Headway (s)	9.0	8.4	7.8	7.8	7.7
Degree Utilization, x	0.51	0.01	1.24	0.94	0.91
Capacity (veh/h)	375	407	473	462	451
Control Delay (s)	19.9	10.3	149.0	55.3	50.9
Approach Delay (s)	19.7		149.0	55.3	50.9
Approach LOS	C		F	F	F

Intersection Summary			
Delay	82.4		
HCM Level of Service	F		
Intersection Capacity Utilization	104.7%	ICU Level of Service	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		4%			0%			0%			0%	
Volume (veh/h)	8	4	173	7	4	10	165	593	20	2	587	4
Peak Hour Factor	0.82	0.82	0.82	0.73	0.73	0.73	0.97	0.97	0.97	0.85	0.85	0.85
Hourly flow rate (veh/h)	10	5	211	10	5	14	170	611	21	2	691	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								739				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1666	1670	693	1873	1662	622	695			632		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1766	1771	693	2005	1762	565	695			576		
tC, single (s)	7.1	6.8	6.2	7.1	6.5	6.4	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.5	4.0	3.5	2.2			2.4		
p0 queue free %	78	90	52	41	91	97	81			100		
cM capacity (veh/h)	44	51	441	16	60	426	900			776		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	226	29	170	632	698
Volume Left	10	10	170	0	2
Volume Right	211	14	0	21	5
cSH	284	40	900	1700	776
Volume to Capacity	0.79	0.72	0.19	0.37	0.00
Queue Length (ft)	156	66	17	0	0
Control Delay (s)	53.2	213.5	9.9	0.0	0.1
Lane LOS	F	F	A		A
Approach Delay (s)	53.2	213.5	2.1		0.1
Approach LOS	F	F			

Intersection Summary			
Average Delay	11.3		
Intersection Capacity Utilization	96.1%	ICU Level of Service	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	19	59	73	766	722	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	21	64	79	833	785	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				511		
pX, platoon unblocked	0.92					
vC, conflicting volume	1363	788	791			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1309	788	791			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	81	90			
cM capacity (veh/h)	126	334	825			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	85	357	555	791
Volume Left	21	79	0	0
Volume Right	64	0	0	7
cSH	238	825	1700	1700
Volume to Capacity	0.36	0.10	0.33	0.47
Queue Length (ft)	38	8	0	0
Control Delay (s)	28.3	3.1	0.0	0.0
Lane LOS	D	A		
Approach Delay (s)	28.3	1.2		0.0
Approach LOS	D			

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	82.1%	ICU Level of Service	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	26	104	671	36	94	688
Peak Hour Factor	0.81	0.81	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	32	128	762	41	107	782
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			351			
pX, platoon unblocked	0.89	0.89			0.89	
vC, conflicting volume	1388	402			803	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1309	196			650	
tC, single (s)	7.3	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.8	3.3			2.2	
p0 queue free %	66	82			87	
cM capacity (veh/h)	95	725			820	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	160	508	295	367	521
Volume Left	32	0	0	107	0
Volume Right	128	0	41	0	0
cSH	311	1700	1700	820	1700
Volume to Capacity	0.52	0.30	0.17	0.13	0.31
Queue Length (ft)	70	0	0	11	0
Control Delay (s)	28.3	0.0	0.0	4.0	0.0
Lane LOS	D			A	
Approach Delay (s)	28.3	0.0		1.7	
Approach LOS	D				

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	66.8%	ICU Level of Service	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	33	94	12	674	698	16
Peak Hour Factor	0.76	0.76	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	43	124	14	766	793	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				267		
pX, platoon unblocked	0.87					
vC, conflicting volume	1212	406	811			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1098	406	811			
tC, single (s)	7.0	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	74	79	98			
cM capacity (veh/h)	165	592	824			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	167	269	511	529	283
Volume Left	43	14	0	0	0
Volume Right	124	0	0	0	18
cSH	354	824	1700	1700	1700
Volume to Capacity	0.47	0.02	0.30	0.31	0.17
Queue Length (ft)	61	1	0	0	0
Control Delay (s)	24.0	0.7	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	24.0	0.2		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Yield			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	99	56	77	350	289	89
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	108	61	84	380	314	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				888		
pX, platoon unblocked						
vC, conflicting volume	910	362	411			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	910	362	411			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	91	93			
cM capacity (veh/h)	283	682	1148			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	168	464	411
Volume Left	108	84	0
Volume Right	61	0	97
cSH	358	1148	1700
Volume to Capacity	0.47	0.07	0.24
Queue Length (ft)	60	6	0
Control Delay (s)	23.6	2.2	0.0
Lane LOS	C	A	
Approach Delay (s)	23.6	2.2	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	66.8%	ICU Level of Service	B

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	148	18	58	310	172	319
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	161	20	63	337	187	347
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	526					
pX, platoon unblocked						
vC, conflicting volume			180		624	161
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			180		624	161
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		56	61
cM capacity (veh/h)			1395		429	884

Direction, Lane #	NB 1	NB 2	SB 1	NW 1	NW 2
Volume Total	161	20	400	187	347
Volume Left	0	0	63	187	0
Volume Right	0	20	0	0	347
cSH	1700	1700	1395	429	884
Volume to Capacity	0.09	0.01	0.05	0.44	0.39
Queue Length (ft)	0	0	4	54	47
Control Delay (s)	0.0	0.0	1.6	19.7	11.7
Lane LOS			A	C	B
Approach Delay (s)	0.0		1.6	14.5	
Approach LOS				B	

Intersection Summary			
Average Delay	7.5		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	167	18	11	203	19	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	182	20	12	221	21	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	467					
pX, platoon unblocked						
vC, conflicting volume			201		436	191
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			201		436	191
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		96	99
cM capacity (veh/h)			1371		573	850

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	201	233	30
Volume Left	0	12	21
Volume Right	20	0	10
cSH	1700	1371	640
Volume to Capacity	0.12	0.01	0.05
Queue Length (ft)	0	1	4
Control Delay (s)	0.0	0.5	10.9
Lane LOS		A	B
Approach Delay (s)	0.0	0.5	10.9
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	24.5%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	257	124	0	222	61	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	279	135	0	241	66	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		401				
pX, platoon unblocked					0.94	
vC, conflicting volume	241				693	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	241				673	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	79				79	100
cM capacity (veh/h)	1325				311	1085

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	414	241	66
Volume Left	279	0	66
Volume Right	0	241	0
cSH	1325	1700	311
Volume to Capacity	0.21	0.14	0.21
Queue Length (ft)	20	0	20
Control Delay (s)	6.3	0.0	19.7
Lane LOS	A		C
Approach Delay (s)	6.3	0.0	19.7
Approach LOS			C

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	44.2%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frt	1.00			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3512			3438	1745	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3512			3438	1745	
Volume (vph)	675	188	0	726	320	40
Peak-hour factor, PHF	0.88	0.88	0.90	0.88	0.92	0.92
Adj. Flow (vph)	767	214	0	825	348	43
Lane Group Flow (vph)	981	0	0	825	391	0
Heavy Vehicles (%)	3%	2%	0%	5%	3%	0%
Turn Type						
Protected Phases	1 2			1 2	3	
Permitted Phases						
Actuated Green, G (s)	45.2			45.2	16.0	
Effective Green, g (s)	47.2			47.2	18.0	
Actuated g/C Ratio	0.59			0.59	0.22	
Clearance Time (s)					6.0	
Vehicle Extension (s)					2.5	
Lane Grp Cap (vph)	2072			2028	393	
v/s Ratio Prot	c0.28			0.24	c0.22	
v/s Ratio Perm						
v/c Ratio	0.47			0.41	0.99	
Uniform Delay, d1	9.3			8.8	31.0	
Progression Factor	0.08			1.00	1.00	
Incremental Delay, d2	0.1			0.1	43.8	
Delay (s)	0.8			8.9	74.7	
Level of Service	A			A	E	
Approach Delay (s)	0.8			8.9	74.7	
Approach LOS	A			A	E	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	14.8
Intersection Capacity Utilization	56.6%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	119	44	863	970	76
Peak Hour Factor	0.90	0.90	0.88	0.88	0.90	0.88
Hourly flow rate (veh/h)	0	132	50	981	1078	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage veh)	0					
Upstream signal (ft)					69	
pX, platoon unblocked	0.87	0.87	0.87			
vC, conflicting volume	1711	582	1164			
vC1, stage 1 conf vol	1121					
vC2, stage 2 conf vol	590					
vCu, unblocked vol	1669	373	1041			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)	5.8					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	76	92			
cM capacity (veh/h)	48	549	589			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	132	50	490	490	719	446
Volume Left	0	50	0	0	0	0
Volume Right	132	0	0	0	0	86
cSH	549	589	1700	1700	1700	1700
Volume to Capacity	0.24	0.08	0.29	0.29	0.42	0.26
Queue Length (ft)	23	7	0	0	0	0
Control Delay (s)	13.6	11.7	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	13.6	0.6			0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	47.4%	ICU Level of Service	A

Movement	EBL	EBT	WBT	SET	NWL2	NWT	NWR	NEL
Lane Configurations								
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00			0.91	0.91	1.00	
Frt	1.00	1.00			1.00	1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00	
Satd. Flow (prot)	1805	1759			1595	3357	1538	
Flt Permitted	0.95	1.00			0.95	1.00	1.00	
Satd. Flow (perm)	1805	1759			1595	3357	1538	
Volume (vph)	63	142	0	0	535	868	165	0
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.92	0.92	0.92	0.90
Adj. Flow (vph)	74	167	0	0	582	943	179	0
Lane Group Flow (vph)	74	167	0	0	582	943	179	0
Heavy Vehicles (%)	0%	8%	0%	0%	3%	3%	5%	0%
Turn Type	Split				custom		Perm	
Protected Phases	3	3			1	1		
Permitted Phases					1		1	
Actuated Green, G (s)	16.0	16.0			34.2	34.2	34.2	
Effective Green, g (s)	18.0	18.0			36.2	36.2	36.2	
Actuated g/C Ratio	0.22	0.22			0.45	0.45	0.45	
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	
Vehicle Extension (s)	2.5	2.5			2.5	2.5	2.5	
Lane Grp Cap (vph)	406	396			722	1519	696	
v/s Ratio Prot	0.04	c0.09			c0.36	0.28		
v/s Ratio Perm							0.12	
v/c Ratio	0.18	0.42			0.81	0.62	0.26	
Uniform Delay, d1	25.1	26.5			18.9	16.7	13.6	
Progression Factor	1.19	1.06			1.40	1.01	1.32	
Incremental Delay, d2	0.1	0.5			8.2	1.7	0.8	
Delay (s)	29.9	28.6			34.6	18.5	18.7	
Level of Service	C	C			C	B	B	
Approach Delay (s)		29.0	0.0	0.0		24.0		0.0
Approach LOS		C	A	A		C		A

Intersection Summary			
HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	44.1%	ICU Level of Service	A
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Sign Control	Stop			Free			Free		Stop	
Grade	0%			0%			0%		0%	
Volume (veh/h)	0	0	0	0	0	0	890	72	410	125
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.93	0.93	0.95	0.95
Hourly flow rate (veh/h)	0	0	0	0	0	0	957	77	432	132
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None								None	
Median storage veh)										
Upstream signal (ft)				965						
pX, platoon unblocked										
vC, conflicting volume	996	517	1034			0			478	1034
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	996	517	1034			0			478	1034
tC, single (s)	6.5	6.9	4.1			4.1			7.6	6.5
tC, 2 stage (s)										
tF (s)	4.0	3.3	2.2			2.2			3.5	4.0
p0 queue free %	100	100	100			100			7	44
cM capacity (veh/h)	246	508	680			1636			466	234

Direction, Lane #	SB 1	SB 2	SW 1	SW 2
Volume Total	638	396	432	132
Volume Left	0	0	432	0
Volume Right	0	77	0	0
cSH	1700	1700	466	234
Volume to Capacity	0.38	0.23	0.93	0.56
Queue Length (ft)	0	0	269	78
Control Delay (s)	0.0	0.0	55.5	38.5
Lane LOS			F	E
Approach Delay (s)	0.0		51.5	
Approach LOS			F	

Intersection Summary			
Average Delay	18.2		
Intersection Capacity Utilization	59.5%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	0	1270	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	0	0	1380	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				746		
pX, platoon unblocked						
vC, conflicting volume	1420	729	1459			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1420	729	1459			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	127	365	459			

Direction, Lane #	SB 1	SB 2
Volume Total	920	538
Volume Left	0	0
Volume Right	0	78
cSH	1700	1700
Volume to Capacity	0.54	0.32
Queue Length (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	24	0	0	1294	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	26	0	0	1407	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				174		
pX, platoon unblocked						
vC, conflicting volume	1418	715	1429			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1418	715	1429			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	93	100			
cM capacity (veh/h)	128	373	472			

Direction, Lane #	EB 1	SB 1	SB 2
Volume Total	26	938	492
Volume Left	0	0	0
Volume Right	26	0	23
cSH	373	1700	1700
Volume to Capacity	0.07	0.55	0.29
Queue Length (ft)	6	0	0
Control Delay (s)	15.4	0.0	0.0
Lane LOS	C		
Approach Delay (s)	15.4	0.0	
Approach LOS	C		

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A

Movement	EBT	EBR	EBR2	WBT	NBL	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	10	12	14	12	16	12	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0		4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.95		1.00		1.00		1.00		1.00	1.00	1.00	1.00
Frt	0.99		0.85		1.00		1.00		1.00	1.00	1.00	0.85
Flt Protected	1.00		1.00		0.95		1.00		0.95	0.95	1.00	1.00
Satd. Flow (prot)	3386		1436		1766		2091		1745	1745	1801	1561
Flt Permitted	1.00		1.00		0.09		1.00		0.95	0.95	1.00	1.00
Satd. Flow (perm)	3386		1436		158		2091		1745	1745	1801	1561
Volume (vph)	519	39	141	0	94	0	1058	7	168	118	863	149
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.89	0.90	0.89	0.89	0.95	0.95	0.95	0.95
Adj. Flow (vph)	577	43	157	0	106	0	1189	8	177	124	908	157
Lane Group Flow (vph)	620	0	157	0	106	0	1197	0	177	124	908	157
Heavy Vehicles (%)	2%	2%	5%	0%	9%	0%	3%	0%	0%	0%	2%	0%
Turn Type			Perm		custom		custom		custom	Perm		Perm
Protected Phases	4				5						6	
Permitted Phases			4		2		2		2 5 6	6		6
Actuated Green, G (s)	11.0		11.0		51.0		51.0		51.0	41.0	41.0	41.0
Effective Green, g (s)	13.0		13.0		53.0		53.0		53.0	43.0	43.0	43.0
Actuated g/C Ratio	0.16		0.16		0.66		0.66		0.66	0.54	0.54	0.54
Clearance Time (s)	6.0		6.0		6.0		6.0			6.0	6.0	6.0
Vehicle Extension (s)	2.5		2.5		2.5		2.5			2.5	2.5	2.5
Lane Grp Cap (vph)	550		233		225		1385		1156	938	968	839
v/s Ratio Prot	c0.18				0.04						c0.50	
v/s Ratio Perm			0.11		0.28		c0.57		0.10	0.07		0.10
v/c Ratio	1.13		0.67		0.47		0.86		0.15	0.13	0.94	0.19
Uniform Delay, d1	33.5		31.5		15.1		10.7		5.1	9.2	17.3	9.5
Progression Factor	0.84		0.72		1.10		0.93		1.00	1.00	1.00	1.00
Incremental Delay, d2	77.3		6.4		0.9		6.1		0.0	0.3	17.3	0.5
Delay (s)	105.5		29.0		17.5		16.0		5.1	9.5	34.6	10.0
Level of Service	F		C		B		B		A	A	C	B
Approach Delay (s)	90.0			0.0		16.1					25.7	
Approach LOS	F			A		B					C	

Intersection Summary			
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	111.2%	ICU Level of Service	G
c Critical Lane Group			

Movement	NWL
Lane Configurations	
Ideal Flow (vphpl)	1900
Lane Width	12
Total Lost time (s)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Volume (vph)	0
Peak-hour factor, PHF	0.69
Adj. Flow (vph)	0
Lane Group Flow (vph)	0
Heavy Vehicles (%)	0%
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	0.0
Approach LOS	A

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1913	0	0	0	0	168
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	2079	0	0	0	0	183
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	46					
pX, platoon unblocked			0.86		0.86	0.86
vC, conflicting volume			2079		2079	693
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1924		1924	305
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	69
cM capacity (veh/h)			259		50	592

Direction, Lane #	EB 1	EB 2	EB 3	NB 1
Volume Total	693	693	693	183
Volume Left	0	0	0	0
Volume Right	0	0	0	183
cSH	1700	1700	1700	592
Volume to Capacity	0.41	0.41	0.41	0.31
Queue Length (ft)	0	0	0	33
Control Delay (s)	0.0	0.0	0.0	13.8
Lane LOS				B
Approach Delay (s)	0.0			13.8
Approach LOS				B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	58.1%	ICU Level of Service	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	88	1901	14	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	96	2066	15	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2074	1041			2082	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2074	1041			2082	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	58			100	
cM capacity (veh/h)	46	227			263	

Direction, Lane #	WB 1	NB 1	NB 2
Volume Total	96	1378	704
Volume Left	0	0	0
Volume Right	96	0	15
cSH	227	1700	1700
Volume to Capacity	0.42	0.81	0.41
Queue Length (ft)	49	0	0
Control Delay (s)	32.0	0.0	0.0
Lane LOS	D		
Approach Delay (s)	32.0	0.0	
Approach LOS	D		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	70.2%	ICU Level of Service	C

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	1292	868	0	0	0	292
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	1404	943	0	0	0	317
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				785		
pX, platoon unblocked						
vC, conflicting volume			2348		1876	1174
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			2348		1876	1174
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	0
cM capacity (veh/h)			206		63	185

Direction, Lane #	NB 1	NB 2	SW 1
Volume Total	936	1412	317
Volume Left	0	0	0
Volume Right	0	943	317
cSH	1700	1700	185
Volume to Capacity	0.55	0.83	1.72
Queue Length (ft)	0	0	550
Control Delay (s)	0.0	0.0	389.2
Lane LOS			F
Approach Delay (s)	0.0		389.2
Approach LOS			F

Intersection Summary			
Average Delay	46.3		
Intersection Capacity Utilization	95.4%	ICU Level of Service	E

Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	669	102	9	389	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	727	111	10	423	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			838		1225	783
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			838		1225	783
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	100
cM capacity (veh/h)			796		195	394

Direction, Lane #	NB 1	SB 1
Volume Total	838	433
Volume Left	0	10
Volume Right	111	0
cSH	1700	796
Volume to Capacity	0.49	0.01
Queue Length (ft)	0	1
Control Delay (s)	0.0	0.4
Lane LOS		A
Approach Delay (s)	0.0	0.4
Approach LOS		

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	48.3%	ICU Level of Service	A

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	183	0	3	641	369	205
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	199	0	3	697	401	223
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1216	512	624			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1216	512	624			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	100	100			
cM capacity (veh/h)	199	562	957			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	199	700	624
Volume Left	199	3	0
Volume Right	0	0	223
cSH	199	957	1700
Volume to Capacity	1.00	0.00	0.37
Queue Length (ft)	215	0	0
Control Delay (s)	112.6	0.1	0.0
Lane LOS	F	A	
Approach Delay (s)	112.6	0.1	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	14.7		
Intersection Capacity Utilization	56.5%	ICU Level of Service	A

Movement	NBL	NBR	SEL	SER	SWL	SWR
Lane Configurations						
Sign Control	Free		Stop		Free	
Grade	0%		0%		0%	
Volume (veh/h)	0	644	0	19	369	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	700	0	21	401	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	401		1101	401		
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	401		1101	401		
tC, single (s)	4.1		6.4	6.2		
tC, 2 stage (s)						
tF (s)	2.2		3.5	3.3		
p0 queue free %	100		100	97		
cM capacity (veh/h)	1158		234	649		

Direction, Lane #	NB 1	SE 1	SW 1
Volume Total	700	21	401
Volume Left	0	0	0
Volume Right	0	21	0
cSH	1700	649	1700
Volume to Capacity	0.41	0.03	0.24
Queue Length (ft)	0	2	0
Control Delay (s)	0.0	10.7	0.0
Lane LOS		B	
Approach Delay (s)	0.0	10.7	0.0
Approach LOS		B	

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	49	32	0	0	0	77	580	43	8	629	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	15	53	35	0	0	0	84	630	47	9	684	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1528	1575	713	1613	1581	654	742			677		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1528	1575	713	1613	1581	654	742			677		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	46	92	100	100	100	90			99		
cM capacity (veh/h)	88	98	432	41	97	467	865			915		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	103	0	84	677	751
Volume Left	15	0	84	0	9
Volume Right	35	0	0	47	59
cSH	130	1700	865	1700	915
Volume to Capacity	0.80	0.00	0.10	0.40	0.01
Queue Length (ft)	119	0	8	0	1
Control Delay (s)	96.4	0.0	9.6	0.0	0.3
Lane LOS	F	A	A		A
Approach Delay (s)	96.4	0.0	1.1		0.3
Approach LOS	F	A			

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	91.8%	ICU Level of Service	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	13	3	47	119	4	53	52	632	125	3	627	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	14	3	51	129	4	58	57	687	136	3	682	30

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total (vph)	68	134	58	57	823	715
Volume Left (vph)	14	129	0	57	0	3
Volume Right (vph)	51	0	58	0	136	30
Hadj (s)	-0.4	0.2	-0.6	0.2	-0.1	0.0
Departure Headway (s)	7.9	8.0	7.2	6.5	6.2	6.4
Degree Utilization, x	0.15	0.30	0.11	0.10	1.41	1.28
Capacity (veh/h)	441	442	492	546	586	569
Control Delay (s)	12.3	13.1	9.9	9.0	213.5	160.3
Approach Delay (s)	12.3	12.1		200.3		160.3
Approach LOS	B	B		F		F

Intersection Summary			
Delay	158.5		
HCM Level of Service	F		
Intersection Capacity Utilization	65.1%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	0	36	145	0	57	17	731	0	0	768	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	16	0	39	158	0	62	18	795	0	0	835	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								222				
pX, platoon unblocked	0.84	0.84		0.84	0.84	0.84				0.84		
vC, conflicting volume	1732	1670	421	1288	1673	795	841			795		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1869	1795	421	1342	1799	756	841			756		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	44	100	93	0	100	79	98			100		
cM capacity (veh/h)	29	65	581	85	65	295	790			716		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	16	39	158	62	18	795	557	285
Volume Left	16	0	158	0	18	0	0	0
Volume Right	0	39	0	62	0	0	0	7
cSH	29	581	85	295	790	1700	1700	1700
Volume to Capacity	0.56	0.07	1.85	0.21	0.02	0.47	0.33	0.17
Queue Length (ft)	45	5	336	19	2	0	0	0
Control Delay (s)	233.0	11.6	506.6	20.4	9.7	0.0	0.0	0.0
Lane LOS	F	B	F	C	A			
Approach Delay (s)	76.8		369.4		0.2		0.0	
Approach LOS	F		F					

Intersection Summary			
Average Delay	44.3		
Intersection Capacity Utilization	59.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00		1.00		0.95			0.95	
Frt	1.00		0.85	1.00		0.85		0.99			0.99	
Flt Protected	0.95		1.00	0.95		1.00		0.99			1.00	
Satd. Flow (prot)	1770		1583	1770		1583		3502			3497	
Flt Permitted	0.95		1.00	0.95		1.00		0.75			0.93	
Satd. Flow (perm)	1770		1583	1770		1583		2650			3266	
Volume (vph)	72	0	98	84	0	40	82	658	27	18	880	72
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	0	107	91	0	43	89	715	29	20	957	78
Lane Group Flow (vph)	78	0	107	91	0	43	0	833	0	0	1055	0
Turn Type	custom		custom	custom		custom	Perm			Perm		
Protected Phases								2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	8.7		8.7	8.7		8.7		36.1			36.1	
Effective Green, g (s)	10.2		10.2	10.2		10.2		39.1			39.1	
Actuated g/C Ratio	0.18		0.18	0.18		0.18		0.68			0.68	
Clearance Time (s)	5.5		5.5	5.5		5.5		7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0		3.0		3.0			3.0	
Lane Grp Cap (vph)	315		282	315		282		1808			2229	
v/s Ratio Prot												
v/s Ratio Perm	0.04		c0.07	0.05		0.03		0.31			c0.32	
v/c Ratio	0.25		0.38	0.29		0.15		0.46			0.47	
Uniform Delay, d1	20.3		20.8	20.4		19.9		4.2			4.3	
Progression Factor	1.00		1.00	1.00		1.00		1.00			1.00	
Incremental Delay, d2	0.4		0.9	0.5		0.3		0.2			0.2	
Delay (s)	20.7		21.6	20.9		20.2		4.4			4.4	
Level of Service	C		C	C		C		A			A	
Approach Delay (s)		21.2			20.7			4.4			4.4	
Approach LOS		C			C			A			A	

Intersection Summary

HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	57.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	B

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	32	40	738	43	23	1073
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	35	43	802	47	25	1166
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			329			663
pX, platoon unblocked	0.93					
vC, conflicting volume	1459	424			849	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1416	424			849	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	70	92			97	
cM capacity (veh/h)	115	578			785	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	78	535	314	414	778
Volume Left	35	0	0	25	0
Volume Right	43	0	47	0	0
cSH	207	1700	1700	785	1700
Volume to Capacity	0.38	0.31	0.18	0.03	0.46
Queue Length (ft)	41	0	0	2	0
Control Delay (s)	32.5	0.0	0.0	1.0	0.0
Lane LOS	D			A	
Approach Delay (s)	32.5	0.0		0.3	
Approach LOS	D				

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	52.0%	ICU Level of Service	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	1.00
Frt	1.00	0.98			1.00	0.85		0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00	1.00		1.00			0.99	1.00
Satd. Flow (prot)	1711	1845			1891	1335		1886			1794	1599
Flt Permitted	0.47	1.00			0.93	1.00		1.00			0.52	1.00
Satd. Flow (perm)	841	1845			1770	1335		1886			952	1599
Volume (vph)	298	337	53	20	188	77	0	317	19	98	348	493
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.90	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	355	401	63	22	207	85	0	387	23	102	362	514
Lane Group Flow (vph)	355	464	0	0	229	85	0	410	0	0	464	514
Heavy Vehicles (%)	2%	1%	0%	0%	0%	21%	0%	0%	0%	18%	1%	1%
Turn Type	D.P+P			Perm		pm+ov				D.P+P		custom
Protected Phases	1	1 2			2	3		4		3	3 4	1
Permitted Phases	2			2		2				4		4
Actuated Green, G (s)	31.2	36.2			18.8	23.6		24.0			28.8	36.4
Effective Green, g (s)	33.2	37.2			19.8	25.6		25.0			30.8	38.4
Actuated g/C Ratio	0.42	0.46			0.25	0.32		0.31			0.38	0.48
Clearance Time (s)	5.0				5.0	5.0		5.0				5.0
Vehicle Extension (s)	2.5				2.5	2.5		2.5				2.5
Lane Grp Cap (vph)	495	858			438	494		589			428	847
v/s Ratio Prot	0.12	0.25				0.01		0.22			c0.08	c0.10
v/s Ratio Perm	c0.18				0.13	0.05					c0.34	0.22
v/c Ratio	0.72	0.54			0.52	0.17		0.70			1.08	0.61
Uniform Delay, d1	17.5	15.3			26.0	19.6		24.2			24.6	15.3
Progression Factor	1.00	1.00			1.09	1.83		1.00			1.00	1.00
Incremental Delay, d2	4.6	0.6			4.4	0.1		3.3			68.0	1.0
Delay (s)	22.1	15.8			32.6	35.9		27.5			92.6	16.3
Level of Service	C	B			C	D		C			F	B
Approach Delay (s)		18.5			33.5			27.5			52.5	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	35.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	96.8%	ICU Level of Service	E

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	454	0	0	285	42	245
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	493	0	0	310	46	266
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	292			250		
pX, platoon unblocked						
vC, conflicting volume			493		803	493
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			493		803	493
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		87	54
cM capacity (veh/h)			1070		353	576

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	493	310	46	266
Volume Left	0	0	46	0
Volume Right	0	0	0	266
cSH	1700	1700	353	576
Volume to Capacity	0.29	0.18	0.13	0.46
Queue Length (ft)	0	0	11	61
Control Delay (s)	0.0	0.0	16.7	16.5
Lane LOS			C	C
Approach Delay (s)	0.0	0.0	16.6	
Approach LOS			C	

Intersection Summary			
Average Delay	4.6		
Intersection Capacity Utilization	49.1%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	71	718	548	144	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	77	780	596	157	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			238			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	752				1609	674
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	726				1673	639
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	90				100	100
cM capacity (veh/h)	793				86	430

Direction, Lane #	EB 1	WB 1
Volume Total	858	752
Volume Left	77	0
Volume Right	0	157
cSH	793	1700
Volume to Capacity	0.10	0.44
Queue Length (ft)	8	0
Control Delay (s)	2.5	0.0
Lane LOS	A	
Approach Delay (s)	2.5	0.0
Approach LOS		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	92.9%	ICU Level of Service	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	716	42	43	505	6	73
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	778	46	47	549	7	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				305		
pX, platoon unblocked					0.93	
vC, conflicting volume			824		1443	412
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			824		1475	412
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		94	87
cM capacity (veh/h)			802		103	589

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	519	305	596	86
Volume Left	0	0	47	7
Volume Right	0	46	0	79
cSH	1700	1700	802	433
Volume to Capacity	0.31	0.18	0.06	0.20
Queue Length (ft)	0	0	5	18
Control Delay (s)	0.0	0.0	1.5	15.3
Lane LOS			A	C
Approach Delay (s)	0.0		1.5	15.3
Approach LOS				C

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	69.7%	ICU Level of Service	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	565	508	0	157	83
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	614	552	0	171	90
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			496			
pX, platoon unblocked	0.99				0.99	0.99
vC, conflicting volume	552				1166	552
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	546				1169	546
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				19	83
cM capacity (veh/h)	1009				210	530

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	614	552	261
Volume Left	0	0	171
Volume Right	0	0	90
cSH	1700	1700	266
Volume to Capacity	0.36	0.32	0.98
Queue Length (ft)	0	0	240
Control Delay (s)	0.0	0.0	91.7
Lane LOS			F
Approach Delay (s)	0.0	0.0	91.7
Approach LOS			F

Intersection Summary			
Average Delay	16.8		
Intersection Capacity Utilization	54.0%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	466	11	87	504	12	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	507	12	95	548	13	107
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				661		
pX, platoon unblocked						
vC, conflicting volume			518		1249	512
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			518		1249	512
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			91		92	81
cM capacity (veh/h)			1048		174	562

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	518	642	120
Volume Left	0	95	13
Volume Right	12	0	107
cSH	1700	1048	452
Volume to Capacity	0.30	0.09	0.26
Queue Length (ft)	0	7	26
Control Delay (s)	0.0	2.3	15.8
Lane LOS		A	C
Approach Delay (s)	0.0	2.3	15.8
Approach LOS			C

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	78.7%	ICU Level of Service	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	0	39	113	2	1	9	947	96	34	835	21
Peak Hour Factor	0.58	0.58	0.58	0.83	0.83	0.83	0.94	0.94	0.94	0.97	0.97	0.97
Hourly flow rate (veh/h)	3	0	67	136	2	1	10	1007	102	35	861	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								266				
pX, platoon unblocked	0.47	0.47		0.47	0.47	0.47				0.47		
vC, conflicting volume	2021	2070	872	2076	2030	1059	882			1110		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	3190	3296	872	3307	3209	1125	882			1235		
tC, single (s)	7.1	6.5	6.2	7.2	6.5	6.3	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.4	2.2			2.2		
p0 queue free %	0	100	81	0	40	99	99			87		
cM capacity (veh/h)	1	4	349	2	4	113	775			266		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	71	140	1119	35	882
Volume Left	3	136	10	35	0
Volume Right	67	1	102	0	22
cSH	26	2	775	266	1700
Volume to Capacity	2.75	84.67	0.01	0.13	0.52
Queue Length (ft)	217	Err	1	11	0
Control Delay (s)	1112.0	Err	0.4	20.6	0.0
Lane LOS	F	F	A	C	
Approach Delay (s)	1112.0	Err	0.4	0.8	
Approach LOS	F	F			

Intersection Summary			
Average Delay	657.4		
Intersection Capacity Utilization	91.5%	ICU Level of Service	E

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Volume (veh/h)	88	33	168	819	1021	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	96	36	183	890	1110	41
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)					185	
pX, platoon unblocked	0.45	0.45	0.45			
vC, conflicting volume	2386	1130	1151			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	4085	1290	1336			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	60	21			
cM capacity (veh/h)	0	90	232			

Direction, Lane #	WB 1	WB 2	SB 1	SB 2	NE 1
Volume Total	96	36	183	890	1151
Volume Left	96	0	183	0	0
Volume Right	0	36	0	0	41
cSH	0	90	232	1700	1700
Volume to Capacity	351.76	0.40	0.79	0.52	0.68
Queue Length (ft)	Err	40	144	0	0
Control Delay (s)	Err	69.7	61.0	0.0	0.0
Lane LOS	F	F	F		
Approach Delay (s)	7291.0		10.4		0.0
Approach LOS	F				

Intersection Summary			
Average Delay	411.8		
Intersection Capacity Utilization	89.4%	ICU Level of Service	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL2	SWL	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		4.0	4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.87			0.94		1.00	1.00			1.00	0.95
Flt Protected	0.95	1.00			0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1736	1650			1777		1736	1881			1900	1752
Flt Permitted	1.00	1.00			1.00		0.22	1.00			1.00	1.00
Satd. Flow (perm)	1827	1650			1788		398	1881			1899	1752
Volume (vph)	299	7	49	1	3	3	46	810	8	1	733	239
Peak-hour factor, PHF	0.86	0.86	0.86	0.42	0.42	0.42	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	348	8	57	2	7	7	52	910	9	1	814	266
Lane Group Flow (vph)	348	65	0	0	16	0	52	919	0	0	815	266
Heavy Vehicles (%)	4%	0%	0%	0%	0%	0%	4%	1%	0%	0%	0%	3%
Turn Type	Perm			Perm			Perm			Perm		custom
Protected Phases		3			4			2			6	
Permitted Phases	3			4			2			6		3 6
Actuated Green, G (s)	15.0	15.0			1.0		50.0	50.0			50.0	70.0
Effective Green, g (s)	16.0	16.0			1.0		51.0	51.0			51.0	71.0
Actuated g/C Ratio	0.20	0.20			0.01		0.64	0.64			0.64	0.89
Clearance Time (s)	5.0	5.0			4.0		5.0	5.0			5.0	
Vehicle Extension (s)	2.5	2.5			2.5		2.5	2.5			2.5	
Lane Grp Cap (vph)	365	330			22		254	1199			1211	1555
v/s Ratio Prot		0.04						c0.49				
v/s Ratio Perm	c0.19				c0.01		0.13				0.43	0.15
v/c Ratio	0.95	0.20			0.73		0.20	0.77			0.67	0.17
Uniform Delay, d1	31.6	26.6			39.4		6.0	10.3			9.2	0.6
Progression Factor	0.90	1.45			1.00		0.26	0.34			0.57	0.00
Incremental Delay, d2	20.4	0.1			72.8		0.8	2.1			2.6	0.0
Delay (s)	49.1	38.7			112.2		2.4	5.6			7.8	0.0
Level of Service	D	D			F		A	A			A	A
Approach Delay (s)		47.4			112.2		5.4				5.9	
Approach LOS		D			F		A				A	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	138.0%	ICU Level of Service	H
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			1.00			0.97	
Flt Protected		0.99			1.00			0.99			1.00	
Satd. Flow (prot)		1816			1837			1838			1806	
Flt Permitted		0.83			0.96			0.81			0.99	
Satd. Flow (perm)		1525			1769			1509			1791	
Volume (vph)	116	369	59	15	242	23	73	339	15	9	404	117
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	126	401	64	16	263	25	79	368	16	10	439	127
Lane Group Flow (vph)	0	591	0	0	304	0	0	463	0	0	576	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		31.0			31.0			35.0			35.0	
Effective Green, g (s)		34.0			34.0			38.0			38.0	
Actuated g/C Ratio		0.42			0.42			0.48			0.48	
Clearance Time (s)		7.0			7.0			7.0			7.0	
Lane Grp Cap (vph)		648			752			717			851	
v/s Ratio Prot												
v/s Ratio Perm		c0.39			0.17			0.31			c0.32	
v/c Ratio		0.91			0.40			0.65			0.68	
Uniform Delay, d1		21.6			16.0			15.9			16.2	
Progression Factor		1.00			0.72			1.00			1.00	
Incremental Delay, d2		19.3			1.6			4.5			4.3	
Delay (s)		40.9			13.2			20.4			20.6	
Level of Service		D			B			C			C	
Approach Delay (s)		40.9			13.2			20.4			20.6	
Approach LOS		D			B			C			C	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	117.7%	ICU Level of Service	G
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	22	562	457	9	8	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	24	611	497	10	9	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			652			
pX, platoon unblocked						
vC, conflicting volume	507				1160	502
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	507				1160	502
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				96	92
cM capacity (veh/h)	1058				211	570

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	635	507	52
Volume Left	24	0	9
Volume Right	0	10	43
cSH	1058	1700	444
Volume to Capacity	0.02	0.30	0.12
Queue Length (ft)	2	0	10
Control Delay (s)	0.6	0.0	14.2
Lane LOS	A		B
Approach Delay (s)	0.6	0.0	14.2
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	77	563	21	8	458	23	12	11	11	9	19	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	84	612	23	9	498	25	13	12	12	10	21	70
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					986							
pX, platoon unblocked												
vC, conflicting volume	523			635			1398	1331	623	1336	1330	510
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	523			635			1398	1331	623	1336	1330	510
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			85	92	98	91	85	88
cM capacity (veh/h)	1044			948			86	141	486	111	141	563

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	718	532	37	100
Volume Left	84	9	13	10
Volume Right	23	25	12	70
cSH	1044	948	141	279
Volume to Capacity	0.08	0.01	0.26	0.36
Queue Length (ft)	7	1	25	39
Control Delay (s)	2.0	0.3	39.3	24.9
Lane LOS	A	A	E	C
Approach Delay (s)	2.0	0.3	39.3	24.9
Approach LOS			E	C

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	82.8%	ICU Level of Service	D

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	193	13	4	162	9	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	210	14	4	176	10	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	1027					
pX, platoon unblocked						
vC, conflicting volume			224		395	210
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			224		395	210
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1345		608	830

Direction, Lane #	EB 1	EB 2	WB 1	NB 1
Volume Total	210	14	180	13
Volume Left	0	0	4	10
Volume Right	0	14	0	3
cSH	1700	1700	1345	652
Volume to Capacity	0.12	0.01	0.00	0.02
Queue Length (ft)	0	0	0	2
Control Delay (s)	0.0	0.0	0.2	10.6
Lane LOS			A	B
Approach Delay (s)	0.0		0.2	10.6
Approach LOS				B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	21.0%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	6	190	148	1	21	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	7	207	161	1	23	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		1242				
pX, platoon unblocked						
vC, conflicting volume	162				381	161
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	162				381	161
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	98
cM capacity (veh/h)	1417				618	884

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	213	162	42
Volume Left	7	0	23
Volume Right	0	1	20
cSH	1417	1700	718
Volume to Capacity	0.00	0.10	0.06
Queue Length (ft)	0	0	5
Control Delay (s)	0.3	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	0.3	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	168	31	41	124	19	66
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	183	34	45	135	21	72
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			216		423	199
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			216		423	199
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		96	91
cM capacity (veh/h)			1353		568	842

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	216	179	92
Volume Left	0	45	21
Volume Right	34	0	72
cSH	1700	1353	760
Volume to Capacity	0.13	0.03	0.12
Queue Length (ft)	0	3	10
Control Delay (s)	0.0	2.1	10.4
Lane LOS		A	B
Approach Delay (s)	0.0	2.1	10.4
Approach LOS			B

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A

2014 Build Conditions

Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑	↑	↱	↰	↱
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		1863	1863	1583	1770	1583
Flt Permitted		1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)		1863	1863	1583	1770	1583
Volume (vph)	0	611	593	399	192	60
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	679	659	443	213	67
Lane Group Flow (vph)	0	679	659	443	213	67
Turn Type				Perm		Perm
Protected Phases		2	6		4	
Permitted Phases				6		4
Actuated Green, G (s)		30.7	30.7	30.7	11.8	11.8
Effective Green, g (s)		32.7	32.7	32.7	13.8	13.8
Actuated g/C Ratio		0.60	0.60	0.60	0.25	0.25
Clearance Time (s)		6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1118	1118	950	448	401
v/s Ratio Prot		c0.36	0.35		c0.12	
v/s Ratio Perm				0.28		0.04
v/c Ratio		0.61	0.59	0.47	0.48	0.17
Uniform Delay, d1		6.9	6.7	6.1	17.3	15.9
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9	0.8	0.4	0.8	0.2
Delay (s)		7.8	7.5	6.4	18.1	16.1
Level of Service		A	A	A	B	B
Approach Delay (s)		7.8	7.1		17.6	
Approach LOS		A	A		B	

Intersection Summary			
HCM Average Control Delay	8.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		4%			0%			0%			0%	
Volume (veh/h)	8	4	173	7	4	10	165	593	20	2	587	4
Peak Hour Factor	0.82	0.82	0.82	0.73	0.73	0.73	0.97	0.97	0.97	0.85	0.85	0.85
Hourly flow rate (veh/h)	10	5	211	10	5	14	170	611	21	2	691	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								761			327	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	1666	1670	693	1873	1662	622	695			632		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1871	1877	598	2143	1866	622	601			632		
tC, single (s)	7.1	6.8	6.2	7.1	6.5	6.4	4.1			4.4		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.5	4.0	3.5	2.2			2.4		
p0 queue free %	68	87	45	0	87	97	77			100		
cM capacity (veh/h)	31	37	382	9	43	454	746			849		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	226	29	170	632	698
Volume Left	10	10	170	0	2
Volume Right	211	14	0	21	5
cSH	225	24	746	1700	849
Volume to Capacity	1.00	1.21	0.23	0.37	0.00
Queue Length (ft)	231	90	22	0	0
Control Delay (s)	106.9	496.7	11.2	0.0	0.1
Lane LOS	F	F	B		A
Approach Delay (s)	106.9	496.7	2.4		0.1
Approach LOS	F	F			

Intersection Summary			
Average Delay	23.0		
Intersection Capacity Utilization	96.1%	ICU Level of Service	E

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	19	59	73	766	722	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	21	64	79	833	785	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				533	555	
pX, platoon unblocked	0.81	0.81	0.81			
vC, conflicting volume	1363	788	791			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1445	740	744			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	78	89			
cM capacity (veh/h)	89	293	700			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	85	357	555	791
Volume Left	21	79	0	0
Volume Right	64	0	0	7
cSH	188	700	1700	1700
Volume to Capacity	0.45	0.11	0.33	0.47
Queue Length (ft)	53	10	0	0
Control Delay (s)	39.1	3.5	0.0	0.0
Lane LOS	E	A		
Approach Delay (s)	39.1	1.4		0.0
Approach LOS	E			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	82.1%	ICU Level of Service	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	26	104	671	36	94	688
Peak Hour Factor	0.81	0.81	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	32	128	762	41	107	782
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			373			715
pX, platoon unblocked						
vC, conflicting volume	1388	402			803	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1388	402			803	
tC, single (s)	7.3	6.9			4.2	
tC, 2 stage (s)						
tF (s)	3.8	3.3			2.2	
p0 queue free %	66	79			87	
cM capacity (veh/h)	94	604			810	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	160	508	295	367	521
Volume Left	32	0	0	107	0
Volume Right	128	0	41	0	0
cSH	289	1700	1700	810	1700
Volume to Capacity	0.56	0.30	0.17	0.13	0.31
Queue Length (ft)	78	0	0	11	0
Control Delay (s)	31.9	0.0	0.0	4.1	0.0
Lane LOS	D			A	
Approach Delay (s)	31.9	0.0		1.7	
Approach LOS	D				

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	66.8%	ICU Level of Service	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	33	94	12	674	698	16
Peak Hour Factor	0.76	0.76	0.88	0.88	0.88	0.88
Hourly flow rate (veh/h)	43	124	14	766	793	18
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				289	799	
pX, platoon unblocked						
vC, conflicting volume	1212	406	811			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1212	406	811			
tC, single (s)	7.0	7.0	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	73	79	98			
cM capacity (veh/h)	158	592	824			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	167	269	511	529	283
Volume Left	43	14	0	0	0
Volume Right	124	0	0	0	18
cSH	345	824	1700	1700	1700
Volume to Capacity	0.48	0.02	0.30	0.31	0.17
Queue Length (ft)	63	1	0	0	0
Control Delay (s)	24.8	0.7	0.0	0.0	0.0
Lane LOS	C	A			
Approach Delay (s)	24.8	0.2		0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	248	20	59	311	50	180
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	270	22	64	338	54	196
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	528					
pX, platoon unblocked			0.94		0.94	0.94
vC, conflicting volume			291		747	280
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			248		731	236
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		84	74
cM capacity (veh/h)			1242		347	756

Direction, Lane #	NB 1	SB 1	NW 1
Volume Total	291	402	250
Volume Left	0	64	54
Volume Right	22	0	196
cSH	1700	1242	602
Volume to Capacity	0.17	0.05	0.42
Queue Length (ft)	0	4	51
Control Delay (s)	0.0	1.7	15.2
Lane LOS		A	C
Approach Delay (s)	0.0	1.7	15.2
Approach LOS			C

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	61.9%	ICU Level of Service	B

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	
Frt	1.00	1.00			0.99			0.93			0.99	
Flt Protected	0.95	1.00			1.00			0.98			0.96	
Satd. Flow (prot)	1770	3515			3406			1707			1758	
Flt Permitted	0.12	1.00			1.00			0.98			0.96	
Satd. Flow (perm)	215	3515			3406			1707			1758	
Volume (vph)	144	825	345	0	817	72	50	20	69	304	44	40
Peak-hour factor, PHF	0.92	0.88	0.88	0.90	0.88	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	157	938	392	0	928	78	54	22	75	330	48	43
Lane Group Flow (vph)	157	1330	0	0	1006	0	0	151	0	0	421	0
Heavy Vehicles (%)	2%	3%	2%	0%	5%	2%	2%	2%	2%	3%	2%	0%
Turn Type	pm+pt						Split			Split		
Protected Phases	5	2			6		4	4		8	8	
Permitted Phases	2											
Actuated Green, G (s)	48.3	48.3			30.6			10.7			19.0	
Effective Green, g (s)	48.3	48.3			30.6			10.7			19.0	
Actuated g/C Ratio	0.54	0.54			0.34			0.12			0.21	
Clearance Time (s)	6.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)	352	1886			1158			203			371	
v/s Ratio Prot	0.07	c0.38			c0.30			c0.09			c0.24	
v/s Ratio Perm	0.17											
v/c Ratio	0.45	0.71			0.87			0.74			1.13	
Uniform Delay, d1	14.9	15.5			27.8			38.3			35.5	
Progression Factor	1.28	1.61			1.00			1.00			1.00	
Incremental Delay, d2	0.5	1.4			7.1			13.7			88.6	
Delay (s)	19.6	26.3			34.9			52.0			124.1	
Level of Service	B	C			C			D			F	
Approach Delay (s)		25.6			34.9			52.0			124.1	
Approach LOS		C			C			D			F	

Intersection Summary			
HCM Average Control Delay	43.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	C
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	350	350	50	225	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.92	0.92
Hourly flow rate (veh/h)	389	389	56	250	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	135					
pX, platoon unblocked			0.87		0.87	0.87
vC, conflicting volume			778		944	583
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			744		936	521
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		100	100
cM capacity (veh/h)			758		236	478

Direction, Lane #	EB 1	WB 1
Volume Total	778	306
Volume Left	0	56
Volume Right	389	0
cSH	1700	758
Volume to Capacity	0.46	0.07
Queue Length (ft)	0	6
Control Delay (s)	0.0	2.6
Lane LOS		A
Approach Delay (s)	0.0	2.6
Approach LOS		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	67.2%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor				1.00	1.00			0.95		1.00	1.00	
Frt				1.00	0.96			0.98		1.00	0.99	
Flt Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1736	1815			3545		1805	1781	
Flt Permitted				0.95	1.00			1.00		0.10	1.00	
Satd. Flow (perm)				1736	1815			3545		181	1781	
Volume (vph)	0	0	0	100	125	50	0	1102	150	550	659	72
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.93	0.93
Adj. Flow (vph)	0	0	0	105	132	56	0	1224	167	611	709	77
Lane Group Flow (vph)	0	0	0	105	188	0	0	1391	0	611	786	0
Heavy Vehicles (%)	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	5%	6%
Turn Type				Perm						pm+pt		
Protected Phases					8			2		1	6	
Permitted Phases				8						6		
Actuated Green, G (s)				12.1	12.1			35.9		65.9	65.9	
Effective Green, g (s)				14.1	14.1			37.9		67.9	67.9	
Actuated g/C Ratio				0.16	0.16			0.42		0.75	0.75	
Clearance Time (s)				6.0	6.0			6.0		6.0	6.0	
Vehicle Extension (s)				3.0	3.0			3.0		3.0	3.0	
Lane Grp Cap (vph)				272	284			1493		606	1344	
v/s Ratio Prot					c0.10			0.39		c0.29	0.44	
v/s Ratio Perm				0.06						c0.47		
v/c Ratio				0.39	0.66			0.93		1.01	0.58	
Uniform Delay, d1				34.1	35.7			24.8		26.7	4.9	
Progression Factor				1.00	1.00			1.00		0.52	0.55	
Incremental Delay, d2				0.9	5.7			11.9		27.3	0.9	
Delay (s)				35.0	41.4			36.7		41.1	3.6	
Level of Service				C	D			D		D	A	
Approach Delay (s)		0.0			39.1			36.7			20.0	
Approach LOS		A			D			D			B	

Intersection Summary			
HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	E

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	18	1302	670	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	20	1415	728	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				746	237	
pX, platoon unblocked	0.77	0.77	0.77			
vC, conflicting volume	2212	758	787			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2584	683	722			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	97			
cM capacity (veh/h)	21	344	674			

Direction, Lane #	NB 1	SB 1
Volume Total	1435	787
Volume Left	20	0
Volume Right	0	59
cSH	674	1700
Volume to Capacity	0.03	0.46
Queue Length (ft)	2	0
Control Delay (s)	1.9	0.0
Lane LOS	A	
Approach Delay (s)	1.9	0.0
Approach LOS		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	113.9%	ICU Level of Service	G

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	33	10	1322	720	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	36	11	1437	783	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				174	809	
pX, platoon unblocked	0.85	0.85	0.85			
vC, conflicting volume	2258	799	815			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2479	763	783			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	90	98			
cM capacity (veh/h)	27	343	710			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	36	1448	815
Volume Left	0	11	0
Volume Right	36	0	33
cSH	343	710	1700
Volume to Capacity	0.10	0.02	0.48
Queue Length (ft)	9	1	0
Control Delay (s)	16.7	1.1	0.0
Lane LOS	C	A	
Approach Delay (s)	16.7	1.1	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	95.7%	ICU Level of Service	E

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	12	12	12	12	14	12	16	12
Total Lost time (s)	4.0	4.0	4.0			4.0	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00	1.00	
Frt	1.00	1.00	0.85			1.00	0.92		1.00	1.00	1.00	
Flt Protected	0.95	1.00	1.00			0.95	1.00		0.95	1.00	1.00	
Satd. Flow (prot)	1745	1801	1496			1805	1745		1766	1900	2091	
Flt Permitted	0.95	1.00	1.00			0.95	1.00		0.16	1.00	1.00	
Satd. Flow (perm)	1745	1801	1496			1805	1745		303	1900	2091	
Volume (vph)	294	338	39	141	163	342	216	257	94	771	511	7
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.90	0.89	0.89
Adj. Flow (vph)	327	376	43	157	181	380	240	286	106	857	574	8
Lane Group Flow (vph)	327	376	200	0	0	561	526	0	106	857	582	0
Heavy Vehicles (%)	0%	2%	2%	5%	0%	0%	0%	0%	9%	0%	3%	0%
Turn Type	Split		Prot		Split	Split			pm+pt		custom	
Protected Phases	4	4	4		8	8	8		5	2	2	
Permitted Phases									2		2	
Actuated Green, G (s)	15.0	15.0	15.0			24.0	24.0		37.0	37.0	37.0	
Effective Green, g (s)	17.0	17.0	17.0			26.0	26.0		39.0	39.0	39.0	
Actuated g/C Ratio	0.18	0.18	0.18			0.28	0.28		0.41	0.41	0.41	
Clearance Time (s)	6.0	6.0	6.0			6.0	6.0		6.0	6.0	6.0	
Vehicle Extension (s)	2.5	2.5	2.5			3.0	3.0		3.0	2.5	2.5	
Lane Grp Cap (vph)	316	326	271			499	483		207	788	868	
v/s Ratio Prot	0.19	c0.21	0.13			c0.31	0.30		0.03	c0.45	0.28	
v/s Ratio Perm									0.18			
v/c Ratio	1.03	1.15	0.74			1.12	1.09		0.51	1.09	0.67	
Uniform Delay, d1	38.5	38.5	36.4			34.0	34.0		19.3	27.5	22.3	
Progression Factor	1.00	1.00	1.00			1.00	1.00		1.00	1.00	1.00	
Incremental Delay, d2	59.9	98.2	9.5			79.0	67.2		2.1	58.5	4.1	
Delay (s)	98.4	136.7	45.9			113.0	101.2		21.4	86.0	26.4	
Level of Service	F	F	D			F	F		C	F	C	
Approach Delay (s)		102.7					107.3			59.1		
Approach LOS		F					F			E		

Intersection Summary			
HCM Average Control Delay	75.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	94.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.9%	ICU Level of Service	F
c Critical Lane Group			

Movement	SBT	SBR	NWL
Lane Configurations			
Ideal Flow (vphpl)	1900	1900	1900
Lane Width	11	11	12
Total Lost time (s)	4.0		
Lane Util. Factor	0.95		
Frt	0.99		
Flt Protected	1.00		
Satd. Flow (prot)	3397		
Flt Permitted	1.00		
Satd. Flow (perm)	3397		
Volume (vph)	690	39	0
Peak-hour factor, PHF	0.95	0.95	0.69
Adj. Flow (vph)	726	41	0
Lane Group Flow (vph)	767	0	0
Heavy Vehicles (%)	2%	0%	0%
Turn Type			
Protected Phases	6		
Permitted Phases			
Actuated Green, G (s)	27.8		
Effective Green, g (s)	29.8		
Actuated g/C Ratio	0.32		
Clearance Time (s)	6.0		
Vehicle Extension (s)	2.5		
Lane Grp Cap (vph)	1077		
v/s Ratio Prot	0.23		
v/s Ratio Perm			
v/c Ratio	0.71		
Uniform Delay, d1	28.3		
Progression Factor	1.00		
Incremental Delay, d2	4.0		
Delay (s)	32.3		
Level of Service	C		
Approach Delay (s)	32.3		0.0
Approach LOS	C		A

Intersection Summary

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	50	300	0	936	332	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	54	326	0	1017	361	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				300		
pX, platoon unblocked						
vC, conflicting volume	1378	361	361			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1378	361	361			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	66	52	100			
cM capacity (veh/h)	159	684	1198			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	54	326	1017	361
Volume Left	54	0	0	0
Volume Right	0	326	0	0
cSH	159	684	1700	1700
Volume to Capacity	0.34	0.48	0.60	0.21
Queue Length (ft)	35	65	0	0
Control Delay (s)	38.8	15.0	0.0	0.0
Lane LOS	E	B		
Approach Delay (s)	18.4		0.0	0.0
Approach LOS	C			

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B

Movement	EBL	EBR	NEL	NET	SWT	SWR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	283	19	4	641	270	305
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	308	21	4	697	293	332
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1165	459	625			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1165	459	625			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	97	100			
cM capacity (veh/h)	214	602	956			

Direction, Lane #	EB 1	NE 1	SW 1
Volume Total	328	701	625
Volume Left	308	4	0
Volume Right	21	0	332
cSH	223	956	1700
Volume to Capacity	1.47	0.00	0.37
Queue Length (ft)	487	0	0
Control Delay (s)	276.1	0.1	0.0
Lane LOS	F	A	
Approach Delay (s)	276.1	0.1	0.0
Approach LOS	F		

Intersection Summary			
Average Delay	54.8		
Intersection Capacity Utilization	64.5%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	14	48	33	0	0	0	77	580	43	7	629	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	15	52	36	0	0	0	84	630	47	8	684	59
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								502				
pX, platoon unblocked	0.80	0.80		0.80	0.80	0.80				0.80		
vC, conflicting volume	1526	1573	713	1611	1579	654	742			677		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1655	1714	713	1762	1721	569	742			598		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	74	19	92	100	100	100	90			99		
cM capacity (veh/h)	58	65	432	15	64	419	865			786		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	103	0	84	677	750
Volume Left	15	0	84	0	8
Volume Right	36	0	0	47	59
cSH	90	1700	865	1700	786
Volume to Capacity	1.15	0.00	0.10	0.40	0.01
Queue Length (ft)	178	0	8	0	1
Control Delay (s)	227.6	0.0	9.6	0.0	0.3
Lane LOS	F	A	A		A
Approach Delay (s)	227.6	0.0	1.1		0.3
Approach LOS	F	A			

Intersection Summary			
Average Delay	15.2		
Intersection Capacity Utilization	91.8%	ICU Level of Service	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	4	47	119	5	53	52	632	125	4	627	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	14	4	51	129	5	58	57	687	136	4	682	30
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)								249				
pX, platoon unblocked	0.68	0.68		0.68	0.68	0.68				0.68		
vC, conflicting volume	1566	1641	697	1627	1589	755	712			823		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1838	1949	697	1928	1871	637	712			738		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	49	89	88	0	88	82	94			99		
cM capacity (veh/h)	28	40	441	26	45	322	888			586		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	70	135	58	57	823	716
Volume Left	14	129	0	57	0	4
Volume Right	51	0	58	0	136	30
cSH	95	27	322	888	1700	586
Volume to Capacity	0.73	5.08	0.18	0.06	0.48	0.01
Queue Length (ft)	94	Err	16	5	0	1
Control Delay (s)	109.7	Err	18.6	9.3	0.0	0.2
Lane LOS	F	F	C	A		A
Approach Delay (s)	109.7	7010.5		0.6		0.2
Approach LOS	F	F				

Intersection Summary			
Average Delay	730.5		
Intersection Capacity Utilization	65.2%	ICU Level of Service	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0	4.0	4.0			4.0	
Lane Util. Factor	1.00		1.00	1.00		1.00	1.00	1.00			0.95	
Frt	1.00		0.85	1.00		0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95		1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1770		1583	1770		1583	1770	1863			3535	
Flt Permitted	0.95		1.00	0.95		1.00	0.31	1.00			1.00	
Satd. Flow (perm)	1770		1583	1770		1583	570	1863			3535	
Volume (vph)	16	0	36	144	0	58	17	731	0	0	768	6
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	0	39	157	0	63	18	795	0	0	835	7
Lane Group Flow (vph)	17	0	39	157	0	63	18	795	0	0	842	0
Turn Type	custom		custom	custom		custom	Perm					
Protected Phases								2			6	
Permitted Phases	4		4	8		8	2					
Actuated Green, G (s)	10.0		10.0	10.0		10.0	26.9	26.9			26.9	
Effective Green, g (s)	12.0		12.0	12.0		12.0	28.9	28.9			28.9	
Actuated g/C Ratio	0.25		0.25	0.25		0.25	0.59	0.59			0.59	
Clearance Time (s)	6.0		6.0	6.0		6.0	6.0	6.0			6.0	
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	434		388	434		388	337	1101			2089	
v/s Ratio Prot								c0.43			0.24	
v/s Ratio Perm	0.01		0.02	c0.09		0.04	0.03					
v/c Ratio	0.04		0.10	0.36		0.16	0.05	0.72			0.40	
Uniform Delay, d1	14.1		14.3	15.3		14.5	4.2	7.1			5.4	
Progression Factor	1.00		1.00	1.00		1.00	1.00	1.00			1.00	
Incremental Delay, d2	0.0		0.1	0.5		0.2	0.1	2.4			0.1	
Delay (s)	14.1		14.4	15.8		14.7	4.3	9.5			5.5	
Level of Service	B		B	B		B	A	A			A	
Approach Delay (s)		14.3			15.5			9.4			5.5	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	8.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	A

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (veh/h)	73	0	99	84	0	40	82	659	26	18	880	72
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	79	0	108	91	0	43	89	716	28	20	957	78

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	79	108	91	43	447	386	976	78
Volume Left (vph)	79	0	91	0	89	0	20	0
Volume Right (vph)	0	108	0	43	0	28	0	78
Hadj (s)	0.2	-0.6	0.2	-0.6	0.1	0.0	0.0	-0.6
Departure Headway (s)	8.3	7.5	8.4	7.6	6.7	6.6	6.9	6.3
Degree Utilization, x	0.18	0.22	0.21	0.09	0.83	0.71	1.88	0.14
Capacity (veh/h)	417	461	409	451	531	533	526	548
Control Delay (s)	12.0	11.5	12.5	10.2	33.4	22.9	417.3	9.1
Approach Delay (s)	11.7		11.8		28.6		387.0	
Approach LOS	B		B		D		F	

Intersection Summary			
Delay	197.1		
HCM Level of Service	F		
Intersection Capacity Utilization	89.8%	ICU Level of Service	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	33	40	738	43	23	1073
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	36	43	802	47	25	1166
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)			329			
pX, platoon unblocked	0.65	0.65			0.65	
vC, conflicting volume	2042	826			849	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2594	733			769	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	84			95	
cM capacity (veh/h)	17	275			552	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	79	849	1191
Volume Left	36	0	25
Volume Right	43	47	0
cSH	35	1700	552
Volume to Capacity	2.24	0.50	0.05
Queue Length (ft)	221	0	4
Control Delay (s)	811.0	0.0	1.9
Lane LOS	F		A
Approach Delay (s)	811.0	0.0	1.9
Approach LOS	F		

Intersection Summary			
Average Delay	31.4		
Intersection Capacity Utilization	116.6%	ICU Level of Service	G

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	12	12	12	12	12	12	12	12	12	12	12
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	1.00
Frt	1.00	0.98			1.00	0.85		0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.99	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1711	1848			1880	1335		1886		1530	1881	1599
Flt Permitted	0.42	1.00			0.82	1.00		1.00		0.95	1.00	1.00
Satd. Flow (perm)	764	1848			1559	1335		1886		1530	1881	1599
Volume (vph)	301	369	53	66	248	77	0	331	19	105	352	498
Peak-hour factor, PHF	0.84	0.84	0.84	0.91	0.91	0.91	0.90	0.82	0.82	0.96	0.96	0.96
Adj. Flow (vph)	358	439	63	73	273	85	0	404	23	109	367	519
Lane Group Flow (vph)	358	502	0	0	346	85	0	427	0	109	367	519
Heavy Vehicles (%)	2%	1%	0%	0%	0%	21%	0%	0%	0%	18%	1%	1%
Turn Type	D.P+P			Perm		custom				Prot		custom
Protected Phases	7	4			8	8		2		1	6	6 7
Permitted Phases	8			8		8					6	6
Actuated Green, G (s)	47.0	52.0			36.0	36.0		17.0		6.0	28.0	44.0
Effective Green, g (s)	49.0	53.0			37.0	37.0		18.0		7.0	29.0	45.0
Actuated g/C Ratio	0.54	0.59			0.41	0.41		0.20		0.08	0.32	0.50
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5			2.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)	542	1088			641	549		377		119	606	800
v/s Ratio Prot	0.09	0.27				0.06		c0.23		c0.07	0.20	c0.32
v/s Ratio Perm	c0.27				0.22							
v/c Ratio	0.66	0.46			0.54	0.15		1.13		0.92	0.61	0.65
Uniform Delay, d1	12.5	10.4			20.1	16.7		36.0		41.2	25.7	16.7
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	2.7	1.4			3.2	0.6		87.5		56.6	1.4	1.6
Delay (s)	15.2	11.9			23.3	17.3		123.5		97.8	27.1	18.3
Level of Service	B	B			C	B		F		F	C	B
Approach Delay (s)		13.2			22.1			123.5			30.2	
Approach LOS		B			C			F			C	

Intersection Summary			
HCM Average Control Delay	38.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	D
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↰	↱
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	361	0	0	255	42	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	392	0	0	277	46	366
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)	292			250		
pX, platoon unblocked			0.91		0.91	0.91
vC, conflicting volume			392		670	392
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			336		639	336
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		89	43
cM capacity (veh/h)			1119		403	646

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	392	277	46	366
Volume Left	0	0	46	0
Volume Right	0	0	0	366
cSH	1700	1700	403	646
Volume to Capacity	0.23	0.16	0.11	0.57
Queue Length (ft)	0	0	10	89
Control Delay (s)	0.0	0.0	15.1	17.6
Lane LOS			C	C
Approach Delay (s)	0.0	0.0	17.3	
Approach LOS			C	

Intersection Summary			
Average Delay	6.6		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Volume (vph)	825	176	554	148	162	480
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	897	191	602	161	176	522
Lane Group Flow (vph)	897	191	602	161	176	522
Turn Type	Split			custom		custom
Protected Phases	2	2	6	6	4	2 4
Permitted Phases				6		4
Actuated Green, G (s)	40.0	40.0	23.0	23.0	9.0	55.0
Effective Green, g (s)	42.0	42.0	25.0	25.0	11.0	57.0
Actuated g/C Ratio	0.47	0.47	0.28	0.28	0.12	0.63
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	826	869	518	440	216	1003
v/s Ratio Prot	c0.51	0.10	c0.32	0.10	c0.10	0.33
v/s Ratio Perm						
v/c Ratio	1.09	0.22	1.16	0.37	0.81	0.52
Uniform Delay, d1	24.0	14.3	32.5	26.1	38.5	9.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	57.3	0.6	92.6	0.5	20.5	0.5
Delay (s)	81.3	14.8	125.1	26.6	59.0	9.5
Level of Service	F	B	F	C	E	A
Approach Delay (s)		69.6	104.3		22.0	
Approach LOS		E	F		C	

Intersection Summary			
HCM Average Control Delay	67.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.1%	ICU Level of Service	F

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↑↑	↑↑	
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	0	0	0	789	774	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (veh/h)	0	0	0	858	841	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)				72		
pX, platoon unblocked						
vC, conflicting volume	1270	421	841			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1270	421	841			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	160	581	790			

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	429	429	421	421
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1700	1700	1700	1700
Volume to Capacity	0.25	0.25	0.25	0.25
Queue Length (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A