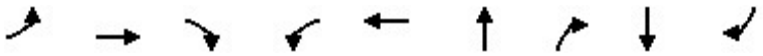
The attached information is provided to support the agency's review process and shall not be distributed to other parties without written consent from Bunt & Associates Engineering Ltd.

APPENDIX B

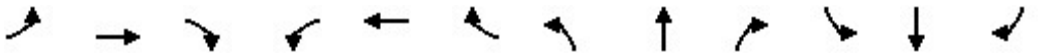
Synchro Reports



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	394	119	430	171	86	548	20	6
v/c Ratio	0.02	0.65	0.21	0.72	0.15	0.34	0.77	0.07	0.02
Control Delay	16.4	24.5	5.0	15.5	5.8	26.3	11.5	22.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	24.5	5.0	15.5	5.8	26.3	11.5	22.0	0.0
Queue Length 50th (m)	0.5	37.4	0.0	18.8	6.0	8.4	2.4	1.8	0.0
Queue Length 95th (m)	3.1	81.0	10.2	#64.7	20.3	23.0	29.0	7.7	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	723	1115	936	648	1637	536	924	630	735
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.35	0.13	0.66	0.10	0.16	0.59	0.03	0.01

Intersection Summary

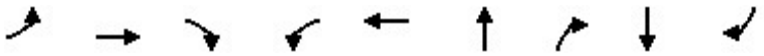
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	347	105	378	145	5	70	5	482	11	6	5
Future Volume (vph)	5	347	105	378	145	5	70	5	482	11	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1491	1750	1852			1651	1472		1729	1607
Flt Permitted	0.65	1.00	1.00	0.29	1.00			0.73	1.00		0.83	1.00
Satd. Flow (perm)	1209	1863	1491	538	1852			1255	1472		1481	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	394	119	430	165	6	80	6	548	12	7	6
RTOR Reduction (vph)	0	0	79	0	1	0	0	0	416	0	0	5
Lane Group Flow (vph)	6	394	40	430	170	0	0	86	132	0	20	1
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	20.3	20.3	20.3	38.5	38.5			12.3	12.3		12.3	12.3
Effective Green, g (s)	20.3	20.3	20.3	38.5	38.5			12.3	12.3		12.3	12.3
Actuated g/C Ratio	0.33	0.33	0.33	0.63	0.63			0.20	0.20		0.20	0.20
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	403	622	497	603	1172			253	297		299	325
v/s Ratio Prot		0.21		c0.15	0.09							
v/s Ratio Perm	0.00		0.03	c0.30				0.07	c0.09		0.01	0.00
v/c Ratio	0.01	0.63	0.08	0.71	0.14			0.34	0.44		0.07	0.00
Uniform Delay, d1	13.6	17.1	13.9	7.3	4.5			20.8	21.2		19.6	19.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	2.2	0.1	4.1	0.1			0.9	1.2		0.1	0.0
Delay (s)	13.6	19.3	13.9	11.4	4.6			21.7	22.5		19.7	19.4
Level of Service	B	B	B	B	A			C	C		B	B
Approach Delay (s)		18.0			9.5			22.4			19.6	
Approach LOS		B			A			C			B	

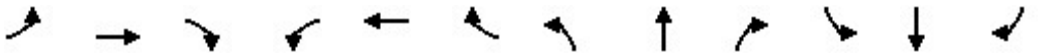
Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	60.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	394	119	430	171	86	548	20	6
v/c Ratio	0.02	0.65	0.21	0.69	0.14	0.36	0.76	0.07	0.02
Control Delay	17.8	25.3	5.3	12.9	5.1	29.2	10.6	24.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	25.3	5.3	12.9	5.1	29.2	10.6	24.7	0.0
Queue Length 50th (m)	0.5	36.9	0.0	19.1	6.1	8.3	0.0	1.8	0.0
Queue Length 95th (m)	3.3	88.6	10.8	50.7	17.3	25.7	26.0	8.6	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	620	955	819	841	1679	450	876	526	631
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.41	0.15	0.51	0.10	0.19	0.63	0.04	0.01

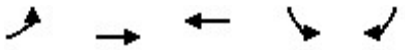
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	347	105	378	145	5	70	5	482	11	6	5
Future Volume (vph)	5	347	105	378	145	5	70	5	482	11	6	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1491	1750	1852			1651	1472		1729	1607
Flt Permitted	0.65	1.00	1.00	0.29	1.00			0.73	1.00		0.82	1.00
Satd. Flow (perm)	1209	1863	1491	537	1852			1255	1472		1471	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	394	119	430	165	6	80	6	548	12	7	6
RTOR Reduction (vph)	0	0	79	0	1	0	0	0	444	0	0	5
Lane Group Flow (vph)	6	394	40	430	170	0	0	86	104	0	20	1
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	20.5	20.5	20.5	39.7	39.7			11.7	11.7		11.7	11.7
Effective Green, g (s)	20.5	20.5	20.5	39.7	39.7			11.7	11.7		11.7	11.7
Actuated g/C Ratio	0.33	0.33	0.33	0.65	0.65			0.19	0.19		0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	403	622	497	627	1197			239	280		280	306
v/s Ratio Prot		0.21		c0.16	0.09							
v/s Ratio Perm	0.00		0.03	c0.28				0.07	c0.07		0.01	0.00
v/c Ratio	0.01	0.63	0.08	0.69	0.14			0.36	0.37		0.07	0.00
Uniform Delay, d1	13.7	17.3	14.0	7.0	4.2			21.6	21.7		20.4	20.1
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	2.2	0.1	3.2	0.1			1.1	1.0		0.1	0.0
Delay (s)	13.7	19.5	14.1	10.2	4.3			22.7	22.6		20.5	20.1
Level of Service	B	B	B	B	A			C	C		C	C
Approach Delay (s)		18.2			8.5			22.7			20.4	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	61.4	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

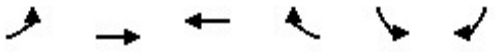
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	652	310	269	183	395
v/c Ratio	0.80	0.25	0.54	0.54	0.40
Control Delay	17.4	5.7	25.7	33.9	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	5.7	25.7	33.9	2.1
Queue Length 50th (m)	39.8	14.2	29.1	24.5	0.0
Queue Length 95th (m)	#118.7	31.7	57.4	45.4	10.4
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	818	1492	706	590	995
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.21	0.38	0.31	0.40

Intersection Summary

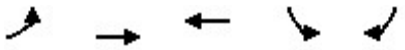
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	606	288	160	90	170	367
Future Volume (vph)	606	288	160	90	170	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1749	1863	1719		1770	1540
Flt Permitted	0.37	1.00	1.00		0.95	1.00
Satd. Flow (perm)	686	1863	1719		1770	1540
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	652	310	172	97	183	395
RTOR Reduction (vph)	0	0	22	0	0	188
Lane Group Flow (vph)	652	310	247	0	183	207
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	50.8	50.8	20.7		14.3	39.4
Effective Green, g (s)	50.8	50.8	20.7		14.3	39.4
Actuated g/C Ratio	0.68	0.68	0.28		0.19	0.52
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	819	1260	473		337	910
v/s Ratio Prot	c0.27	0.17	0.14		c0.10	0.08
v/s Ratio Perm	c0.27					0.06
v/c Ratio	0.80	0.25	0.52		0.54	0.23
Uniform Delay, d1	7.8	4.7	23.0		27.4	9.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.6	0.1	1.2		2.0	0.2
Delay (s)	13.3	4.8	24.2		29.4	9.8
Level of Service	B	A	C		C	A
Approach Delay (s)		10.6	24.2		16.0	
Approach LOS		B	C		B	

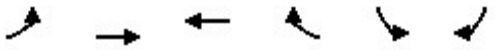
Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	75.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	652	310	269	183	395
v/c Ratio	0.74	0.24	0.59	0.59	0.67
Control Delay	14.1	5.2	33.1	41.9	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	5.2	33.1	41.9	9.9
Queue Length 50th (m)	41.4	14.2	37.5	30.0	0.0
Queue Length 95th (m)	107.1	31.7	71.1	55.2	26.3
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	972	1548	536	448	678
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.20	0.50	0.41	0.58

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	606	288	160	90	170	367
Future Volume (vph)	606	288	160	90	170	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1749	1863	1718		1770	1515
Flt Permitted	0.35	1.00	1.00		0.95	1.00
Satd. Flow (perm)	637	1863	1718		1770	1515
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	652	310	172	97	183	395
RTOR Reduction (vph)	0	0	20	0	0	325
Lane Group Flow (vph)	652	310	249	0	183	70
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Actuated Green, G (s)	59.3	59.3	21.4		14.8	14.8
Effective Green, g (s)	59.3	59.3	21.4		14.8	14.8
Actuated g/C Ratio	0.71	0.71	0.25		0.18	0.18
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	884	1313	437		311	266
v/s Ratio Prot	c0.29	0.17	0.14		c0.10	
v/s Ratio Perm	c0.23					0.05
v/c Ratio	0.74	0.24	0.57		0.59	0.26
Uniform Delay, d1	7.9	4.4	27.3		31.9	29.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	3.3	0.1	1.9		3.0	0.6
Delay (s)	11.3	4.5	29.2		34.9	30.5
Level of Service	B	A	C		C	C
Approach Delay (s)		9.1	29.2		31.9	
Approach LOS		A	C		C	

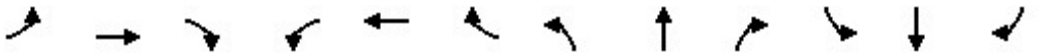
Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	84.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	5	7	13	5	6	12	591	17	7	493	14
Future Volume (Veh/h)	6	5	7	13	5	6	12	591	17	7	493	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	7	6	8	15	6	7	14	695	20	8	580	16
Pedestrians		3			20						19	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			2						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1369	1370	301	1070	1368	744	599			735		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1369	1370	301	1070	1368	744	599			735		
tC, single (s)	7.5	6.5	7.2	7.5	6.5	7.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	93	96	99	91	96	98	98			99		
cM capacity (veh/h)	95	139	659	159	139	315	932			852		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	21	28	729	298	306
Volume Left	7	15	14	8	0
Volume Right	8	7	20	0	16
cSH	163	176	932	852	1700
Volume to Capacity	0.13	0.16	0.02	0.01	0.18
Queue Length 95th (m)	3.5	4.4	0.4	0.2	0.0
Control Delay (s)	30.4	29.3	0.4	0.4	0.0
Lane LOS	D	D	A	A	
Approach Delay (s)	30.4	29.3	0.4	0.2	
Approach LOS	D	D			

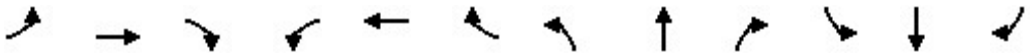
Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	56.5%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	187	13	26	239	36	7	20	23	9	21	79
Future Volume (Veh/h)	31	187	13	26	239	36	7	20	23	9	21	79
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	35	212	15	30	272	41	8	23	26	10	24	90
Pedestrians		11			14			15			7	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	320			242			704	684	248	693	672	310
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	320			242			704	684	248	693	672	310
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			98			97	93	97	97	93	87
cM capacity (veh/h)	1233			1308			259	346	746	305	352	719

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	35	227	30	313	57	124
Volume Left	35	0	30	0	8	10
Volume Right	0	15	0	41	26	90
cSH	1233	1700	1308	1700	431	990
Volume to Capacity	0.03	0.13	0.02	0.18	0.13	0.13
Queue Length 95th (m)	0.7	0.0	0.6	0.0	3.6	3.4
Control Delay (s)	8.0	0.0	7.8	0.0	14.6	12.4
Lane LOS	A		A		B	B
Approach Delay (s)	1.1		0.7		14.6	12.4
Approach LOS					B	B

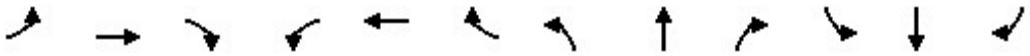
Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	135	23	55	189	15	18	42	39	11	23	11
Future Volume (Veh/h)	21	135	23	55	189	15	18	42	39	11	23	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	25	159	27	65	222	18	21	49	46	13	27	13
Pedestrians		11			8			21			20	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	260			207			633	634	202	668	638	262
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	260			207			633	634	202	668	638	262
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	98			95			94	86	94	95	92	98
cM capacity (veh/h)	1283			1340			327	358	817	277	356	757

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	25	186	65	240	116	53
Volume Left	25	0	65	0	21	13
Volume Right	0	27	0	18	46	13
cSH	1283	1700	1340	1700	450	378
Volume to Capacity	0.02	0.11	0.05	0.14	0.26	0.14
Queue Length 95th (m)	0.5	0.0	1.2	0.0	8.1	3.9
Control Delay (s)	7.9	0.0	7.8	0.0	15.7	16.1
Lane LOS	A		A		C	C
Approach Delay (s)	0.9		1.7		15.7	16.1
Approach LOS					C	C

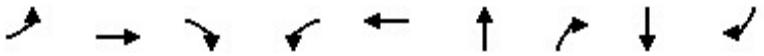
Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	34.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	47	12	127	5	24	5	217	141	9	6	133	28
Future Volume (vph)	47	12	127	5	24	5	217	141	9	6	133	28
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	55	14	149	6	28	6	255	166	11	7	156	33

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	218	40	432	196
Volume Left (vph)	55	6	255	7
Volume Right (vph)	149	6	11	33
Hadj (s)	-0.29	0.02	0.14	-0.06
Departure Headway (s)	5.3	6.0	5.1	5.2
Degree Utilization, x	0.32	0.07	0.61	0.28
Capacity (veh/h)	618	501	683	647
Control Delay (s)	10.8	9.4	15.5	10.2
Approach Delay (s)	10.8	9.4	15.5	10.2
Approach LOS	B	A	C	B

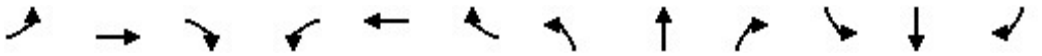
Intersection Summary			
Delay	12.9		
Level of Service	B		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	223	111	604	373	127	417	67	20
v/c Ratio	0.02	0.43	0.22	0.81	0.33	0.49	0.65	0.17	0.05
Control Delay	17.6	21.7	5.8	19.4	7.1	27.0	7.7	19.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	21.7	5.8	19.4	7.1	27.0	7.7	19.7	0.2
Queue Length 50th (m)	0.5	20.0	0.0	31.4	15.9	12.3	0.0	6.0	0.0
Queue Length 95th (m)	3.2	43.5	10.6	#108.7	40.6	28.2	19.4	15.7	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	613	1135	973	755	1742	540	886	798	747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.20	0.11	0.80	0.21	0.24	0.47	0.08	0.03

Intersection Summary

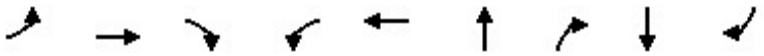
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	201	100	544	330	5	109	5	375	5	55	18
Future Volume (vph)	5	201	100	544	330	5	109	5	375	5	55	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1528	1768	1858			1725	1499		1882	1607
Flt Permitted	0.54	1.00	1.00	0.45	1.00			0.69	1.00		0.97	1.00
Satd. Flow (perm)	1005	1863	1528	829	1858			1242	1499		1836	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	223	111	604	367	6	121	6	417	6	61	20
RTOR Reduction (vph)	0	0	80	0	1	0	0	0	329	0	0	16
Lane Group Flow (vph)	6	223	31	604	372	0	0	127	88	0	67	4
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	16.1	16.1	16.1	35.8	35.8			12.2	12.2		12.2	12.2
Effective Green, g (s)	16.1	16.1	16.1	35.8	35.8			12.2	12.2		12.2	12.2
Actuated g/C Ratio	0.28	0.28	0.28	0.62	0.62			0.21	0.21		0.21	0.21
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	278	517	424	749	1146			261	315		386	338
v/s Ratio Prot		0.12		c0.20	0.20							
v/s Ratio Perm	0.01		0.02	c0.29				c0.10	0.06		0.04	0.00
v/c Ratio	0.02	0.43	0.07	0.81	0.32			0.49	0.28		0.17	0.01
Uniform Delay, d1	15.2	17.2	15.4	7.1	5.3			20.1	19.2		18.8	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.7	0.1	6.5	0.2			1.7	0.6		0.3	0.0
Delay (s)	15.3	17.9	15.5	13.6	5.5			21.8	19.8		19.0	18.1
Level of Service	B	B	B	B	A			C	B		B	B
Approach Delay (s)		17.1			10.5			20.3			18.8	
Approach LOS		B			B			C			B	

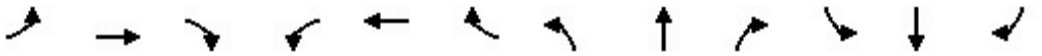
Intersection Summary			
HCM 2000 Control Delay	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	58.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	223	111	604	373	127	417	67	20
v/c Ratio	0.02	0.46	0.23	0.75	0.31	0.52	0.66	0.19	0.05
Control Delay	23.6	26.8	7.2	13.3	6.3	33.8	8.9	25.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	26.8	7.2	13.3	6.3	33.8	8.9	25.3	0.3
Queue Length 50th (m)	0.5	22.4	0.0	33.0	16.7	13.4	0.0	6.6	0.0
Queue Length 95th (m)	4.1	56.6	12.7	73.9	38.1	37.4	25.0	20.8	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	372	690	634	1016	1675	399	764	592	575
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.32	0.18	0.59	0.22	0.32	0.55	0.11	0.03

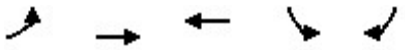
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	201	100	544	330	5	109	5	375	5	55	18
Future Volume (vph)	5	201	100	544	330	5	109	5	375	5	55	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.98		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1527	1768	1858			1725	1498		1882	1607
Flt Permitted	0.54	1.00	1.00	0.43	1.00			0.69	1.00		0.97	1.00
Satd. Flow (perm)	1005	1863	1527	804	1858			1242	1498		1836	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	223	111	604	367	6	121	6	417	6	61	20
RTOR Reduction (vph)	0	0	82	0	1	0	0	0	334	0	0	16
Lane Group Flow (vph)	6	223	29	604	372	0	0	127	83	0	67	4
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	17.1	17.1	17.1	41.6	41.6			12.8	12.8		12.8	12.8
Effective Green, g (s)	17.1	17.1	17.1	41.6	41.6			12.8	12.8		12.8	12.8
Actuated g/C Ratio	0.27	0.27	0.27	0.65	0.65			0.20	0.20		0.20	0.20
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	266	494	405	811	1200			246	297		364	319
v/s Ratio Prot		0.12		c0.23	0.20							
v/s Ratio Perm	0.01		0.02	c0.26				c0.10	0.06		0.04	0.00
v/c Ratio	0.02	0.45	0.07	0.74	0.31			0.52	0.28		0.18	0.01
Uniform Delay, d1	17.5	19.7	17.7	6.9	5.0			23.0	21.9		21.5	20.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	0.8	0.1	3.9	0.2			2.1	0.6		0.3	0.0
Delay (s)	17.5	20.5	17.8	10.7	5.2			25.2	22.5		21.7	20.7
Level of Service	B	C	B	B	A			C	C		C	C
Approach Delay (s)		19.6			8.6			23.1			21.5	
Approach LOS		B			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	64.4	Sum of lost time (s)	15.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		

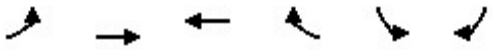
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	442	256	559	204	647
v/c Ratio	0.74	0.20	0.88	0.61	0.76
Control Delay	24.8	5.5	43.3	40.0	16.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	5.5	43.3	40.0	16.9
Queue Length 50th (m)	45.5	12.8	85.2	32.8	50.2
Queue Length 95th (m)	#99.8	27.3	#164.3	54.7	88.2
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	628	1344	650	532	876
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.70	0.19	0.86	0.38	0.74

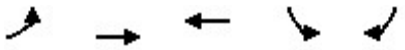
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	420	243	359	172	194	615
Future Volume (vph)	420	243	359	172	194	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1863	1755		1770	1564
Flt Permitted	0.13	1.00	1.00		0.95	1.00
Satd. Flow (perm)	248	1863	1755		1770	1564
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	442	256	378	181	204	647
RTOR Reduction (vph)	0	0	17	0	0	115
Lane Group Flow (vph)	442	256	542	0	204	532
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	57.9	57.9	29.5		15.8	39.2
Effective Green, g (s)	57.9	57.9	29.5		15.8	39.2
Actuated g/C Ratio	0.69	0.69	0.35		0.19	0.47
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	597	1288	618		334	825
v/s Ratio Prot	c0.21	0.14	c0.31		0.12	c0.18
v/s Ratio Perm	0.31					0.16
v/c Ratio	0.74	0.20	0.88		0.61	0.64
Uniform Delay, d1	17.9	4.6	25.4		31.1	16.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.1	0.1	13.5		3.5	1.8
Delay (s)	23.0	4.7	38.9		34.6	18.8
Level of Service	C	A	D		C	B
Approach Delay (s)		16.3	38.9		22.5	
Approach LOS		B	D		C	

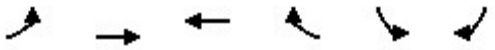
Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	83.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	442	256	559	204	647
v/c Ratio	0.79	0.20	0.87	0.56	0.83
Control Delay	29.4	6.2	40.8	38.1	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	6.2	40.8	38.1	14.9
Queue Length 50th (m)	47.7	13.9	84.5	33.4	8.7
Queue Length 95th (m)	#115.3	30.1	#158.9	57.8	54.6
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	595	1449	798	534	873
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.18	0.70	0.38	0.74

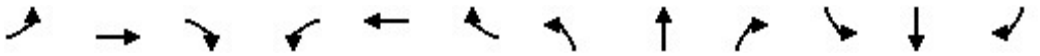
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	420	243	359	172	194	615
Future Volume (vph)	420	243	359	172	194	615
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1863	1755		1770	1535
Flt Permitted	0.14	1.00	1.00		0.95	1.00
Satd. Flow (perm)	262	1863	1755		1770	1535
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	442	256	378	181	204	647
RTOR Reduction (vph)	0	0	17	0	0	467
Lane Group Flow (vph)	442	256	542	0	204	180
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	pm+pt	NA	NA		Prot	Perm
Protected Phases	5	2	6		4	
Permitted Phases	2					4
Actuated Green, G (s)	57.3	57.3	30.5		17.6	17.6
Effective Green, g (s)	57.3	57.3	30.5		17.6	17.6
Actuated g/C Ratio	0.67	0.67	0.36		0.21	0.21
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	564	1257	630		366	318
v/s Ratio Prot	c0.20	0.14	c0.31		0.12	
v/s Ratio Perm	0.33					c0.12
v/c Ratio	0.78	0.20	0.86		0.56	0.57
Uniform Delay, d1	18.7	5.2	25.2		30.2	30.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	7.2	0.1	11.6		2.0	2.5
Delay (s)	25.9	5.3	36.8		32.2	32.7
Level of Service	C	A	D		C	C
Approach Delay (s)		18.4	36.8		32.6	
Approach LOS		B	D		C	

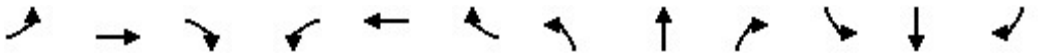
Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	84.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	14	5	15	5	570	20	8	777	5
Future Volume (Veh/h)	5	5	5	14	5	15	5	570	20	8	777	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	5	5	15	5	16	5	600	21	8	818	5
Pedestrians		3			3						20	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			0						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1498	1474	414	1056	1466	634	826			624		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1498	1474	414	1056	1466	634	826			624		
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 %	93	96	99	91	96	96	99			99		
cM capacity (veh/h)	76	123	585	170	125	414	798			951		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	15	36	626	417	414
Volume Left	5	15	5	8	0
Volume Right	5	16	21	0	5
cSH	131	215	798	951	1700
Volume to Capacity	0.11	0.17	0.01	0.01	0.24
Queue Length 95th (m)	3.0	4.7	0.2	0.2	0.0
Control Delay (s)	36.1	25.1	0.2	0.3	0.0
Lane LOS	E	D	A	A	
Approach Delay (s)	36.1	25.1	0.2	0.1	
Approach LOS	E	D			

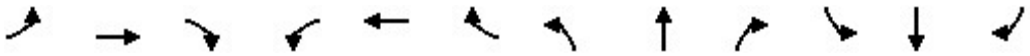
Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	50.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	262	21	29	272	27	18	23	55	27	30	87
Future Volume (Veh/h)	20	262	21	29	272	27	18	23	55	27	30	87
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	291	23	32	302	30	20	26	61	30	33	97
Pedestrians		32			7			36			13	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			3			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	345			350			846	792	346	810	788	362
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	345			350			846	792	346	810	788	362
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 %	98			97			90	91	91	87	89	85
cM capacity (veh/h)	1184			1167			195	295	666	233	295	657

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	22	314	32	332	107	160
Volume Left	22	0	32	0	20	30
Volume Right	0	23	0	30	61	97
cSH	1184	1700	1167	1700	379	674
Volume to Capacity	0.02	0.18	0.03	0.20	0.28	0.24
Queue Length 95th (m)	0.5	0.0	0.7	0.0	9.1	7.4
Control Delay (s)	8.1	0.0	8.2	0.0	18.2	15.9
Lane LOS	A		A		C	C
Approach Delay (s)	0.5		0.7		18.2	15.9
Approach LOS					C	C

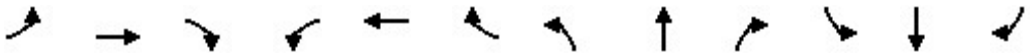
Intersection Summary				
Average Delay	5.1			
Intersection Capacity Utilization	45.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	241	27	34	185	5	26	42	62	14	21	20
Future Volume (Veh/h)	8	241	27	34	185	5	26	42	62	14	21	20
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	9	259	29	37	199	5	28	45	67	15	23	22
Pedestrians		12			3			16			6	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	210			304			626	592	292	651	604	220
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	210			304			626	592	292	651	604	220
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			97			92	89	91	95	94	97
cM capacity (veh/h)	1291			1240			345	397	735	296	390	808

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	9	288	37	204	140	60
Volume Left	9	0	37	0	28	15
Volume Right	0	29	0	5	67	22
cSH	1291	1700	1240	1700	490	439
Volume to Capacity	0.01	0.17	0.03	0.12	0.29	0.14
Queue Length 95th (m)	0.2	0.0	0.7	0.0	9.4	3.8
Control Delay (s)	7.8	0.0	8.0	0.0	15.3	14.5
Lane LOS	A		A		C	B
Approach Delay (s)	0.2		1.2		15.3	14.5
Approach LOS					C	B

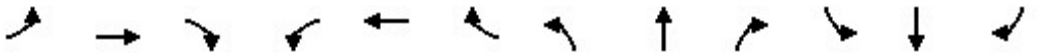
Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	37.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	33	19	181	5	7	5	220	135	7	5	141	21
Future Volume (vph)	33	19	181	5	7	5	220	135	7	5	141	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	34	20	189	5	7	5	229	141	7	5	147	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	243	17	377	174
Volume Left (vph)	34	5	229	5
Volume Right (vph)	189	5	7	22
Hadj (s)	-0.40	-0.08	0.15	-0.01
Departure Headway (s)	4.9	5.6	5.0	5.1
Degree Utilization, x	0.33	0.03	0.52	0.25
Capacity (veh/h)	671	544	698	659
Control Delay (s)	10.4	8.8	13.3	9.8
Approach Delay (s)	10.4	8.8	13.3	9.8
Approach LOS	B	A	B	A

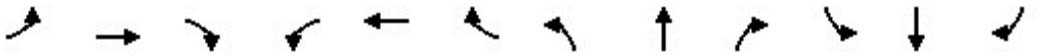
Intersection Summary			
Delay	11.6		
Level of Service	B		
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	148	50	0	268	5	19	11	6	0	0	32
Future Volume (Veh/h)	5	148	50	0	268	5	19	11	6	0	0	32
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	159	54	0	288	5	20	12	6	0	0	34
Pedestrians		21			1			6				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		2			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	288			165			548	490	193	500	466	312
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	288			165			548	490	193	500	466	312
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 %	100			100			95	97	99	100	100	95
cM capacity (veh/h)	1274			1406			414	475	844	465	490	716

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	218	293	38	34
Volume Left	5	0	20	0
Volume Right	54	5	6	34
cSH	1274	1700	471	716
Volume to Capacity	0.00	0.17	0.08	0.05
Queue Length 95th (m)	0.1	0.0	2.1	1.2
Control Delay (s)	0.2	0.0	13.3	10.3
Lane LOS	A		B	B
Approach Delay (s)	0.2	0.0	13.3	10.3
Approach LOS			B	B

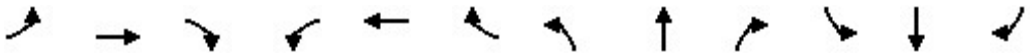
Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	283	50	46	120	5	26	5	80	5	5	5
Future Volume (Veh/h)	5	283	50	46	120	5	26	5	80	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	5	308	54	50	130	5	28	5	87	5	5	5
Pedestrians		1			40			31			18	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			3			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	153			393			617	629	406	725	654	152
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	153			393			617	629	406	725	654	152
tC, single (s)	4.3			4.2			7.1	6.7	6.3	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.4			2.3			3.5	4.2	3.4	3.5	4.0	3.6
p0 queue free %	100			95			92	99	85	98	99	99
cM capacity (veh/h)	1305			1099			357	343	599	256	353	806

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	367	185	33	87	15
Volume Left	5	50	28	0	5
Volume Right	54	5	0	87	5
cSH	1305	1099	354	599	376
Volume to Capacity	0.00	0.05	0.09	0.15	0.04
Queue Length 95th (m)	0.1	1.1	2.4	4.0	1.0
Control Delay (s)	0.1	2.6	16.2	12.0	15.0
Lane LOS	A	A	C	B	B
Approach Delay (s)	0.1	2.6	13.2		15.0
Approach LOS			B		B

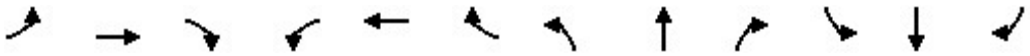
Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	50.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	195	16	32	168	29	5	19	9	5	19	16
Future Volume (Veh/h)	21	195	16	32	168	29	5	19	9	5	19	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	25	229	19	38	198	34	6	22	11	6	22	19
Pedestrians		14			12			27			51	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	283			275			650	674	278	664	667	280
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	283			275			650	674	278	664	667	280
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 %	98			97			98	93	99	98	93	97
cM capacity (veh/h)	1209			1259			313	334	737	304	337	718

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	273	270	39	47
Volume Left	25	38	6	6
Volume Right	19	34	11	19
cSH	1209	1259	390	422
Volume to Capacity	0.02	0.03	0.10	0.11
Queue Length 95th (m)	0.5	0.7	2.6	3.0
Control Delay (s)	0.9	1.4	15.3	14.6
Lane LOS	A	A	C	B
Approach Delay (s)	0.9	1.4	15.3	14.6
Approach LOS			C	B

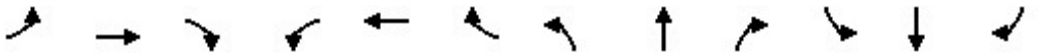
Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	33.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	153	19	21	152	24	12	11	16	6	12	16
Future Volume (Veh/h)	27	153	19	21	152	24	12	11	16	6	12	16
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	31	174	22	24	173	27	14	12	18	7	14	18
Pedestrians		34			12			1			39	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			0			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	239			197			542	535	198	556	532	260
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	239			197			542	535	198	556	532	260
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.5
p0 queue free %	97			98			96	97	98	98	97	97
cM capacity (veh/h)	1235			1375			393	418	834	382	420	683

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	227	224	44	39
Volume Left	31	24	14	7
Volume Right	22	27	18	18
cSH	1235	1375	512	500
Volume to Capacity	0.03	0.02	0.09	0.08
Queue Length 95th (m)	0.6	0.4	2.2	2.0
Control Delay (s)	1.3	1.0	12.7	12.8
Lane LOS	A	A	B	B
Approach Delay (s)	1.3	1.0	12.7	12.8
Approach LOS			B	B

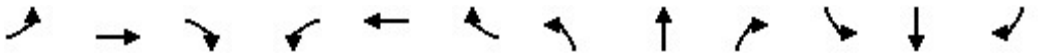
Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	32.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	288	98	0	199	5	14	5	5	0	0	22
Future Volume (Veh/h)	7	288	98	0	199	5	14	5	5	0	0	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	8	313	107	0	216	5	15	5	5	0	0	24
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	216			314			626	600	368	608	548	218
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216			314			626	600	368	608	548	218
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 %	99			100			96	99	99	100	100	97
cM capacity (veh/h)	1354			1245			383	412	677	399	441	821

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	428	221	25	24
Volume Left	8	0	15	0
Volume Right	107	5	5	24
cSH	1354	1700	426	821
Volume to Capacity	0.01	0.13	0.06	0.03
Queue Length 95th (m)	0.1	0.0	1.5	0.7
Control Delay (s)	0.2	0.0	14.0	9.5
Lane LOS	A		B	A
Approach Delay (s)	0.2	0.0	14.0	9.5
Approach LOS			B	A

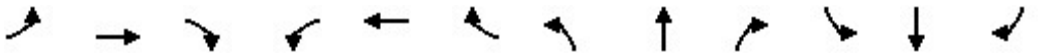
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	281	46	92	282	5	40	5	131	6	5	26
Future Volume (Veh/h)	5	281	46	92	282	5	40	5	131	6	5	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	302	49	99	303	5	43	5	141	6	5	28
Pedestrians		2			43			38			27	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			4			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	335			389			910	908	408	1054	930	334
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	335			389			910	908	408	1054	930	334
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 %	100			91			79	98	77	95	98	96
cM capacity (veh/h)	1197			1132			208	237	601	129	230	686

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	356	407	48	141	39
Volume Left	5	99	43	0	6
Volume Right	49	5	0	141	28
cSH	1197	1132	211	601	358
Volume to Capacity	0.00	0.09	0.23	0.23	0.11
Queue Length 95th (m)	0.1	2.3	6.8	7.2	2.9
Control Delay (s)	0.2	2.7	27.1	12.8	16.3
Lane LOS	A	A	D	B	C
Approach Delay (s)	0.2	2.7	16.4		16.3
Approach LOS			C		C

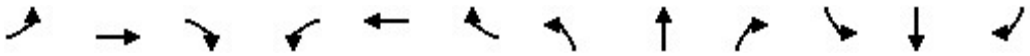
Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	60.9%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	291	27	30	283	33	5	36	35	14	25	72
Future Volume (Veh/h)	41	291	27	30	283	33	5	36	35	14	25	72
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	43	306	28	32	298	35	5	38	37	15	26	76
Pedestrians		33			40			119			122	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			3			10			10	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	455			453			1026	1044	479	1004	1040	470
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	455			453			1026	1044	479	1004	1040	470
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 %	96			97			96	78	93	87	85	85
cM capacity (veh/h)	993			998			114	172	511	120	172	518

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	377	365	80	117
Volume Left	43	32	5	15
Volume Right	28	35	37	76
cSH	993	998	237	277
Volume to Capacity	0.04	0.03	0.34	0.42
Queue Length 95th (m)	1.1	0.8	11.4	16.0
Control Delay (s)	1.4	1.1	27.7	27.2
Lane LOS	A	A	D	D
Approach Delay (s)	1.4	1.1	27.7	27.2
Approach LOS			D	D

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	269	24	21	244	31	11	13	27	19	20	41
Future Volume (Veh/h)	24	269	24	21	244	31	11	13	27	19	20	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	25	280	25	22	254	32	11	14	28	20	21	43
Pedestrians		51			35			1			71	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			3			0			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	357			306			762	744	328	798	741	392
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	357			306			762	744	328	798	741	392
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	98			98			96	95	96	92	93	92
cM capacity (veh/h)	1120			1254			250	309	687	238	308	572

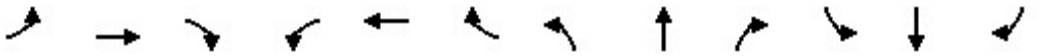
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	330	308	53	84
Volume Left	25	22	11	20
Volume Right	25	32	28	43
cSH	1120	1254	408	370
Volume to Capacity	0.02	0.02	0.13	0.23
Queue Length 95th (m)	0.5	0.4	3.6	6.9
Control Delay (s)	0.8	0.7	15.1	17.6
Lane LOS	A	A	C	C
Approach Delay (s)	0.8	0.7	15.1	17.6
Approach LOS			C	C

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	41.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	5	22	5	5	28	16	442	7	14	223	26
Future Volume (Veh/h)	17	5	22	5	5	28	16	442	7	14	223	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	19	6	25	6	6	32	18	502	8	16	253	30
Pedestrians		14			6			1			10	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	897	866	283	862	877	522	297			516		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	897	866	283	862	877	522	297			516		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	98	97	98	98	94	99			98		
cM capacity (veh/h)	228	278	730	251	274	543	1250			1044		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	50	44	18	510	16	283
Volume Left	19	6	18	0	16	0
Volume Right	25	32	0	8	0	30
cSH	360	420	1250	1700	1044	1700
Volume to Capacity	0.14	0.10	0.01	0.30	0.02	0.17
Queue Length 95th (m)	3.8	2.8	0.4	0.0	0.4	0.0
Control Delay (s)	16.6	14.6	7.9	0.0	8.5	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	16.6	14.6	0.3		0.5	
Approach LOS	C	B				

Intersection Summary				
Average Delay	1.9			
Intersection Capacity Utilization	36.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	6	59	5	17	40	48	310	5	7	165	55
Future Volume (Veh/h)	123	6	59	5	17	40	48	310	5	7	165	55
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	134	7	64	5	18	43	52	337	5	8	179	60
Pedestrians		11			2						5	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	734	684	220	708	712	346	250			344		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	734	684	220	708	712	346	250			344		
tC, single (s)	7.1	6.5	6.2	7.1	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 %	53	98	92	98	95	94	96			99		
cM capacity (veh/h)	285	350	812	303	338	675	1303			1213		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	141	64	66	52	342	8	239
Volume Left	134	0	5	52	0	8	0
Volume Right	0	64	43	0	5	0	60
cSH	287	812	494	1303	1700	1213	1700
Volume to Capacity	0.49	0.08	0.13	0.04	0.20	0.01	0.14
Queue Length 95th (m)	20.3	2.0	3.7	1.0	0.0	0.2	0.0
Control Delay (s)	29.0	9.8	13.4	7.9	0.0	8.0	0.0
Lane LOS	D	A	B	A		A	
Approach Delay (s)	23.0		13.4	1.0		0.3	
Approach LOS	C		B				

Intersection Summary				
Average Delay	6.7			
Intersection Capacity Utilization	43.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	72	5	5	116	108	36
Future Volume (Veh/h)	72	5	5	116	108	36
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	75	5	5	121	112	38
Pedestrians	2			2	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	269	135	152			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	269	135	152			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	99	100			
cM capacity (veh/h)	714	911	1426			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	80	126	150
Volume Left	75	5	0
Volume Right	5	0	38
cSH	723	1426	1700
Volume to Capacity	0.11	0.00	0.09
Queue Length 95th (m)	3.0	0.1	0.0
Control Delay (s)	10.6	0.3	0.0
Lane LOS	B	A	
Approach Delay (s)	10.6	0.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	21.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	13	19	7	21	9	25	172	39	5	118	23
Future Volume (Veh/h)	12	13	19	7	21	9	25	172	39	5	118	23
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	14	15	22	8	24	10	29	198	45	6	136	26
Pedestrians		38			8			7			12	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	476	495	181	448	476	218	200			251		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	476	495	181	448	476	218	200			251		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.4		
p0 queue free %	97	97	97	98	95	99	98			100		
cM capacity (veh/h)	423	445	822	464	452	808	1329			1208		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	51	42	227	45	142	26
Volume Left	14	8	29	0	6	0
Volume Right	22	10	0	45	0	26
cSH	545	508	1329	1700	1208	1700
Volume to Capacity	0.09	0.08	0.02	0.03	0.00	0.02
Queue Length 95th (m)	2.5	2.2	0.5	0.0	0.1	0.0
Control Delay (s)	12.3	12.7	1.2	0.0	0.4	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	12.3	12.7	1.0		0.3	
Approach LOS	B	B				

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	38.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	5	19	16	0	8	0	318	46	5	189	0
Future Volume (Veh/h)	18	5	19	16	0	8	0	318	46	5	189	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	20	6	22	18	0	9	0	361	52	6	215	0
Pedestrians		17			9			1			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	645	666	233	649	640	401	232			422		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	645	666	233	649	640	401	232			422		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	94	98	97	95	100	99	100			99		
cM capacity (veh/h)	360	370	794	352	383	642	1317			1129		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	48	27	413	221
Volume Left	20	18	0	6
Volume Right	22	9	52	0
cSH	483	414	1700	1129
Volume to Capacity	0.10	0.07	0.24	0.01
Queue Length 95th (m)	2.6	1.7	0.0	0.1
Control Delay (s)	13.3	14.3	0.0	0.3
Lane LOS	B	B		A
Approach Delay (s)	13.3	14.3	0.0	0.3
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.5			
Intersection Capacity Utilization	31.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	5	16	5	7	49	26	423	5	20	393	49
Future Volume (Veh/h)	18	5	16	5	7	49	26	423	5	20	393	49
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	20	5	17	5	8	53	28	460	5	22	427	53
Pedestrians		29			5			1			21	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1120	1052	484	1015	1076	488	509			470		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1120	1052	484	1015	1076	488	509			470		
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 %	86	98	97	97	96	91	97			98		
cM capacity (veh/h)	146	210	569	194	203	567	1021			1087		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	42	66	28	465	22	480
Volume Left	20	5	28	0	22	0
Volume Right	17	53	0	5	0	53
cSH	220	416	1021	1700	1087	1700
Volume to Capacity	0.19	0.16	0.03	0.27	0.02	0.28
Queue Length 95th (m)	5.5	4.5	0.7	0.0	0.5	0.0
Control Delay (s)	25.2	15.3	8.6	0.0	8.4	0.0
Lane LOS	D	C	A		A	
Approach Delay (s)	25.2	15.3	0.5		0.4	
Approach LOS	D	C				

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	5	22	5	29	54	44	284	5	9	259	130
Future Volume (Veh/h)	99	5	22	5	29	54	44	284	5	9	259	130
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	103	5	23	5	30	56	46	296	5	9	270	135
Pedestrians		19			2						1	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		2			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	834	770	356	706	834	302	424			303		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	834	770	356	706	834	302	424			303		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	55	98	97	98	89	92	96			99		
cM capacity (veh/h)	228	310	677	317	284	736	1117			1206		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	108	23	91	46	301	9	405
Volume Left	103	0	5	46	0	9	0
Volume Right	0	23	56	0	5	0	135
cSH	231	677	461	1117	1700	1206	1700
Volume to Capacity	0.47	0.03	0.20	0.04	0.18	0.01	0.24
Queue Length 95th (m)	18.3	0.8	5.8	1.0	0.0	0.2	0.0
Control Delay (s)	33.6	10.5	14.7	8.4	0.0	8.0	0.0
Lane LOS	D	B	B	A		A	
Approach Delay (s)	29.5		14.7	1.1		0.2	
Approach LOS	D		B				

Intersection Summary				
Average Delay	5.8			
Intersection Capacity Utilization	47.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	56	6	10	156	103	89
Future Volume (Veh/h)	56	6	10	156	103	89
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	63	7	11	175	116	100
Pedestrians	1			1	3	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	367	168	217			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	168	217			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	90	99	99			
cM capacity (veh/h)	626	875	1352			

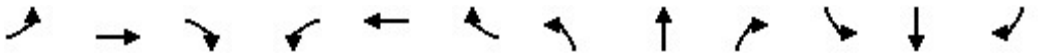
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	70	186	216
Volume Left	63	11	0
Volume Right	7	0	100
cSH	644	1352	1700
Volume to Capacity	0.11	0.01	0.13
Queue Length 95th (m)	2.9	0.2	0.0
Control Delay (s)	11.3	0.5	0.0
Lane LOS	B	A	
Approach Delay (s)	11.3	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	31	69	28	55	18	35	270	48	9	197	76
Future Volume (Veh/h)	42	31	69	28	55	18	35	270	48	9	197	76
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	45	33	74	30	59	19	38	290	52	10	212	82
Pedestrians		42			20			14			33	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			2			1			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	722	712	268	722	742	343	336			362		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	722	712	268	722	742	343	336			362		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	90	90	88	81	97	97			99		
cM capacity (veh/h)	249	321	735	257	313	669	1180			1177		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	152	108	328	52	222	82
Volume Left	45	30	38	0	10	0
Volume Right	74	19	0	52	0	82
cSH	396	324	1180	1700	1177	1700
Volume to Capacity	0.38	0.33	0.03	0.03	0.01	0.05
Queue Length 95th (m)	14.1	11.4	0.8	0.0	0.2	0.0
Control Delay (s)	19.7	21.6	1.2	0.0	0.4	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	19.7	21.6	1.1		0.3	
Approach LOS	C	C				

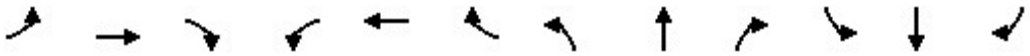
Intersection Summary				
Average Delay	6.2			
Intersection Capacity Utilization	51.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	5	34	49	0	24	0	401	37	13	328	0
Future Volume (Veh/h)	28	5	34	49	0	24	0	401	37	13	328	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	31	6	38	54	0	27	0	446	41	14	364	0
Pedestrians		40			20			10			15	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	940	939	414	930	918	502	404			507		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	940	939	414	930	918	502	404			507		
tC, single (s)	7.2	6.9	6.2	7.1	7.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.9	3.3	2.2			2.2		
p0 queue free %	85	97	94	74	100	95	100			99		
cM capacity (veh/h)	203	214	612	211	178	549	1116			1040		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	75	81	487	378
Volume Left	31	54	0	14
Volume Right	38	27	41	0
cSH	309	266	1700	1040
Volume to Capacity	0.24	0.30	0.29	0.01
Queue Length 95th (m)	7.5	10.0	0.0	0.3
Control Delay (s)	20.4	24.4	0.0	0.5
Lane LOS	C	C		A
Approach Delay (s)	20.4	24.4	0.0	0.5
Approach LOS	C	C		

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	44.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	734	5	7	575	10	5	5	20	5	5	5
Future Volume (Veh/h)	5	734	5	7	575	10	5	5	20	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	844	6	8	661	11	6	6	23	6	6	6
Pedestrians		1						5			14	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	686			855			1220	1566	430	1156	1564	351
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	686			855			1220	1566	430	1156	1564	351
tC, single (s)	4.5			4.1			7.5	6.5	6.9	8.5	6.5	7.7
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.0	3.3	4.0	4.0	3.7
p0 queue free %	99			99			95	94	96	93	94	99
cM capacity (veh/h)	784			777			125	107	571	92	107	540

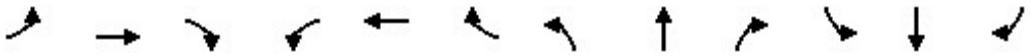
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	428	428	338	342	35	18
Volume Left	6	0	8	0	6	6
Volume Right	0	6	0	11	23	6
cSH	784	1700	777	1700	242	136
Volume to Capacity	0.01	0.25	0.01	0.20	0.14	0.13
Queue Length 95th (m)	0.2	0.0	0.2	0.0	4.0	3.6
Control Delay (s)	0.2	0.0	0.3	0.0	22.4	35.5
Lane LOS	A		A		C	E
Approach Delay (s)	0.1		0.2		22.4	35.5
Approach LOS					C	E

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	682	5	5	385	38	5	5	5	10	5	25
Future Volume (Veh/h)	34	682	5	5	385	38	5	5	5	10	5	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	35	710	5	5	401	40	5	5	5	10	5	26
Pedestrians								6			1	
Lane Width (m)								3.6			3.6	
Walking Speed (m/s)								1.2			1.2	
Percent Blockage								1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	442			721			1028	1240	364	864	1223	222
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	442			721			1028	1240	364	864	1223	222
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	97			99			97	97	99	96	97	97
cM capacity (veh/h)	1113			872			171	166	630	232	170	782

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	35	473	242	206	240	15	15	26
Volume Left	35	0	0	5	0	5	10	0
Volume Right	0	0	5	0	40	5	0	26
cSH	1113	1700	1700	872	1700	223	207	782
Volume to Capacity	0.03	0.28	0.14	0.01	0.14	0.07	0.07	0.03
Queue Length 95th (m)	0.8	0.0	0.0	0.1	0.0	1.7	1.9	0.8
Control Delay (s)	8.3	0.0	0.0	0.3	0.0	22.3	23.7	9.8
Lane LOS	A			A		C	C	A
Approach Delay (s)	0.4			0.1		22.3	14.9	
Approach LOS						C	B	

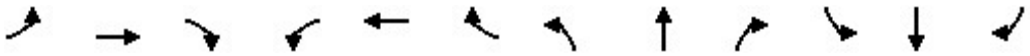
Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	40.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	147	7	40	265	12	5	47	13	5	41	69
Future Volume (Veh/h)	43	147	7	40	265	12	5	47	13	5	41	69
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	51	173	8	47	312	14	6	55	15	6	48	81
Pedestrians		38						24			24	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		3						2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	350			205			859	747	201	758	744	381
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	350			205			859	747	201	758	744	381
tC, single (s)	4.1			4.1			7.1	6.6	6.3	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.4	3.5	4.0	3.4
p0 queue free %	96			96			97	82	98	98	84	87
cM capacity (veh/h)	1185			1339			184	299	808	244	304	624

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	232	373	76	135
Volume Left	51	47	6	6
Volume Right	8	14	15	81
cSH	1185	1339	323	432
Volume to Capacity	0.04	0.04	0.24	0.31
Queue Length 95th (m)	1.1	0.9	7.2	10.5
Control Delay (s)	2.1	1.3	19.6	17.1
Lane LOS	A	A	C	C
Approach Delay (s)	2.1	1.3	19.6	17.1
Approach LOS			C	C

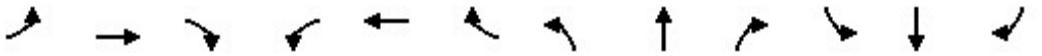
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	586	5	27	872	7	5	5	28	7	5	5
Future Volume (Veh/h)	5	586	5	27	872	7	5	5	28	7	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	5	604	5	28	899	7	5	5	29	7	5	5
Pedestrians		3						5			8	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	914			614			1138	1592	310	1310	1590	464
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	914			614			1138	1592	310	1310	1590	464
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	99			97			97	95	96	93	95	99
cM capacity (veh/h)	737			957			143	101	683	103	102	540

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	307	307	478	456	39	17
Volume Left	5	0	28	0	5	7
Volume Right	0	5	0	7	29	5
cSH	737	1700	957	1700	308	134
Volume to Capacity	0.01	0.18	0.03	0.27	0.13	0.13
Queue Length 95th (m)	0.2	0.0	0.7	0.0	3.4	3.4
Control Delay (s)	0.2	0.0	0.9	0.0	18.4	35.6
Lane LOS	A		A		C	E
Approach Delay (s)	0.1		0.4		18.4	35.6
Approach LOS					C	E

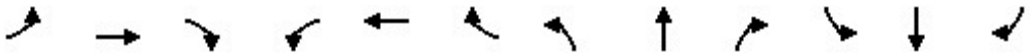
Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	54.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	507	5	5	702	183	5	5	5	37	5	233
Future Volume (Veh/h)	98	507	5	5	702	183	5	5	5	37	5	233
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	101	523	5	5	724	189	5	5	5	38	5	240
Pedestrians					1			3			14	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	927			531			1345	1668	268	1314	1576	470
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	927			531			1345	1668	268	1314	1576	470
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.6	6.5	6.9
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 %	86			100			90	94	99	60	95	55
cM capacity (veh/h)	725			1030			51	81	728	95	92	533

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	101	349	179	367	551	15	43	240
Volume Left	101	0	0	5	0	5	38	0
Volume Right	0	0	5	0	189	5	0	240
cSH	725	1700	1700	1030	1700	90	94	533
Volume to Capacity	0.14	0.21	0.11	0.00	0.32	0.17	0.46	0.45
Queue Length 95th (m)	3.9	0.0	0.0	0.1	0.0	4.5	15.5	18.5
Control Delay (s)	10.8	0.0	0.0	0.2	0.0	53.0	71.9	17.2
Lane LOS	B			A		F	F	C
Approach Delay (s)	1.7			0.1		53.0	25.5	
Approach LOS						F	D	

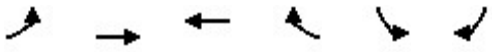
Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	55.4%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	324	26	20	218	7	12	22	30	9	40	49
Future Volume (Veh/h)	36	324	26	20	218	7	12	22	30	9	40	49
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	37	334	27	21	225	7	12	23	31	9	41	51
Pedestrians		5						6			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	238			367			774	708	354	740	718	240
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	238			367			774	708	354	740	718	240
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 %	97			98			95	93	95	97	88	94
cM capacity (veh/h)	1322			1186			254	340	687	287	334	787

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	398	253	66	101
Volume Left	37	21	12	9
Volume Right	27	7	31	51
cSH	1322	1186	412	462
Volume to Capacity	0.03	0.02	0.16	0.22
Queue Length 95th (m)	0.7	0.4	4.5	6.6
Control Delay (s)	1.0	0.8	15.4	15.0
Lane LOS	A	A	C	B
Approach Delay (s)	1.0	0.8	15.4	15.0
Approach LOS			C	B

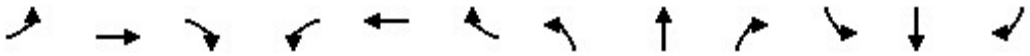
Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	42.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	97	271	361	5	5	114
Future Volume (Veh/h)	97	271	361	5	5	114
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	104	291	388	5	5	123
Pedestrians		14				
Lane Width (m)		3.6				
Walking Speed (m/s)		1.2				
Percent Blockage		1				
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	393				890	404
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	393				890	404
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				98	81
cM capacity (veh/h)	1166				286	639

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	395	393	128
Volume Left	104	0	5
Volume Right	0	5	123
cSH	1166	1700	609
Volume to Capacity	0.09	0.23	0.21
Queue Length 95th (m)	2.3	0.0	6.3
Control Delay (s)	2.9	0.0	12.5
Lane LOS	A		B
Approach Delay (s)	2.9	0.0	12.5
Approach LOS			B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	220	71	245	200	13	60	6	172	5	5	5
Future Volume (Veh/h)	5	220	71	245	200	13	60	6	172	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	259	84	288	235	15	71	7	202	6	6	6
Pedestrians		17			5			52			10	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			4			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	260			395			1202	1201	358	1310	1236	270
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	260			395			1202	1201	358	1310	1236	270
tC, single (s)	4.1			4.1			7.2	6.5	6.2	7.1	6.7	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.3	3.5	4.2	3.3
p0 queue free %	100			74			33	95	69	91	95	99
cM capacity (veh/h)	1294			1113			106	129	654	68	114	752

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	6	343	288	250	280	18
Volume Left	6	0	288	0	71	6
Volume Right	0	84	0	15	202	6
cSH	1294	1700	1113	1700	272	121
Volume to Capacity	0.00	0.20	0.26	0.15	1.03	0.15
Queue Length 95th (m)	0.1	0.0	8.3	0.0	86.2	4.0
Control Delay (s)	7.8	0.0	9.4	0.0	103.6	39.8
Lane LOS	A		A		F	E
Approach Delay (s)	0.1		5.0		103.6	39.8
Approach LOS					F	E

Intersection Summary			
Average Delay	27.4		
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		



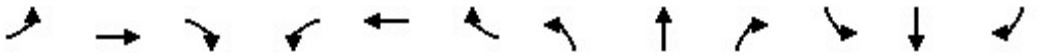
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	6	343	288	250	280	18
v/c Ratio	0.01	0.42	0.63	0.29	0.55	0.05
Control Delay	5.2	7.1	14.2	6.5	9.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	7.1	14.2	6.5	9.4	11.3
Queue Length 50th (m)	0.2	8.6	9.6	6.6	3.2	0.5
Queue Length 95th (m)	1.4	26.2	32.4	20.0	20.5	4.6
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	971	1503	857	1589	976	880
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.23	0.34	0.16	0.29	0.02

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	220	71	245	200	13	60	6	172	5	5	5
Future Volume (vph)	5	220	71	245	200	13	60	6	172	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	0.99	1.00		0.97	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.90			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1758	1731		1716	1820			1585			1631	
Flt Permitted	0.60	1.00		0.55	1.00			0.91			0.86	
Satd. Flow (perm)	1118	1731		1002	1820			1457			1422	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	6	259	84	288	235	15	71	7	202	6	6	6
RTOR Reduction (vph)	0	21	0	0	4	0	0	150	0	0	4	0
Lane Group Flow (vph)	6	322	0	288	246	0	0	130	0	0	14	0
Confl. Peds. (#/hr)	10		52	52		10	17		5	5		17
Heavy Vehicles (%)	2%	2%	10%	2%	3%	8%	12%	2%	2%	2%	20%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.2	16.2		16.2	16.2			8.7			8.7	
Effective Green, g (s)	16.2	16.2		16.2	16.2			8.7			8.7	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.26			0.26	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	534	827		478	869			373			364	
v/s Ratio Prot		0.19			0.14							
v/s Ratio Perm	0.01			c0.29				c0.09			0.01	
v/c Ratio	0.01	0.39		0.60	0.28			0.35			0.04	
Uniform Delay, d1	4.6	5.7		6.5	5.3			10.3			9.5	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.3		2.1	0.2			0.6			0.0	
Delay (s)	4.7	6.0		8.6	5.5			10.9			9.5	
Level of Service	A	A		A	A			B			A	
Approach Delay (s)		6.0			7.2			10.9			9.5	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	33.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

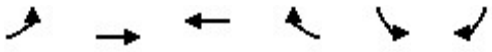
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	82	12	8	283	12	23	64	16	6	68	51
Future Volume (Veh/h)	10	82	12	8	283	12	23	64	16	6	68	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	12	96	14	9	333	14	27	75	19	7	80	60
Pedestrians		44									29	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		4									2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	376			110			629	521	103	570	521	413
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	376			110			629	521	103	570	521	413
tC, single (s)	4.2			4.2			7.1	6.5	6.3	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.5	4.0	3.4	3.7	4.0	3.3
p0 queue free %	99			99			91	83	98	98	82	90
cM capacity (veh/h)	1112			1414			286	440	941	330	441	601

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	122	356	121	147
Volume Left	12	9	27	7
Volume Right	14	14	19	60
cSH	1112	1414	424	486
Volume to Capacity	0.01	0.01	0.29	0.30
Queue Length 95th (m)	0.3	0.2	9.3	10.1
Control Delay (s)	0.9	0.3	16.8	15.6
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	0.3	16.8	15.6
Approach LOS			C	C

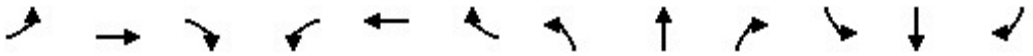
Intersection Summary				
Average Delay	6.1			
Intersection Capacity Utilization	36.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	124	353	309	5	5	158
Future Volume (Veh/h)	124	353	309	5	5	158
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	128	364	319	5	5	163
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	324				942	322
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	324				942	322
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				98	77
cM capacity (veh/h)	1236				262	719

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	492	324	168
Volume Left	128	0	5
Volume Right	0	5	163
cSH	1236	1700	684
Volume to Capacity	0.10	0.19	0.25
Queue Length 95th (m)	2.8	0.0	7.7
Control Delay (s)	3.0	0.0	12.0
Lane LOS	A		B
Approach Delay (s)	3.0	0.0	12.0
Approach LOS			B

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	122	45	231	210	19	42	7	360	16	9	10
Future Volume (Veh/h)	5	122	45	231	210	19	42	7	360	16	9	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	5	127	47	241	219	20	44	7	375	17	9	10
Pedestrians		7			1			4			3	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			0			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	242			178			887	888	156	1230	902	239
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	242			178			887	888	156	1230	902	239
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 %	100			83			80	97	58	77	96	99
cM capacity (veh/h)	1321			1387			216	231	887	75	227	793

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	5	174	241	239	426	36
Volume Left	5	0	241	0	44	17
Volume Right	0	47	0	20	375	10
cSH	1321	1700	1387	1700	649	129
Volume to Capacity	0.00	0.10	0.17	0.14	0.66	0.28
Queue Length 95th (m)	0.1	0.0	5.0	0.0	39.1	8.5
Control Delay (s)	7.7	0.0	8.1	0.0	20.5	43.6
Lane LOS	A		A		C	E
Approach Delay (s)	0.2		4.1		20.5	43.6
Approach LOS					C	E

Intersection Summary			
Average Delay	11.0		
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	5	174	241	239	426	36
v/c Ratio	0.01	0.25	0.53	0.34	0.60	0.09
Control Delay	6.4	5.9	12.2	7.8	6.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	5.9	12.2	7.8	6.3	7.6
Queue Length 50th (m)	0.2	2.9	6.4	5.5	1.5	0.8
Queue Length 95th (m)	1.4	13.9	26.8	21.4	16.8	5.2
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	760	1206	798	1236	1161	975
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.14	0.30	0.19	0.37	0.04

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	122	45	231	210	19	42	7	360	16	9	10
Future Volume (vph)	5	122	45	231	210	19	42	7	360	16	9	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.88			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1767	1776		1748	1836			1602			1739	
Flt Permitted	0.61	1.00		0.65	1.00			0.96			0.81	
Satd. Flow (perm)	1135	1776		1191	1836			1548			1450	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	127	47	241	219	20	44	7	375	17	9	10
RTOR Reduction (vph)	0	29	0	0	7	0	0	267	0	0	7	0
Lane Group Flow (vph)	5	145	0	241	232	0	0	159	0	0	29	0
Confl. Peds. (#/hr)	3		4	4		3	7		1	1		7
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.9	10.9		10.9	10.9			8.1			8.1	
Effective Green, g (s)	10.9	10.9		10.9	10.9			8.1			8.1	
Actuated g/C Ratio	0.39	0.39		0.39	0.39			0.29			0.29	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	441	691		463	714			447			419	
v/s Ratio Prot		0.08			0.13							
v/s Ratio Perm	0.00			c0.20				c0.10			0.02	
v/c Ratio	0.01	0.21		0.52	0.32			0.36			0.07	
Uniform Delay, d1	5.2	5.7		6.5	6.0			7.9			7.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.2		1.1	0.3			0.5			0.1	
Delay (s)	5.3	5.8		7.6	6.2			8.4			7.3	
Level of Service	A	A		A	A			A			A	
Approach Delay (s)		5.8			6.9			8.4			7.3	
Approach LOS		A			A			A			A	

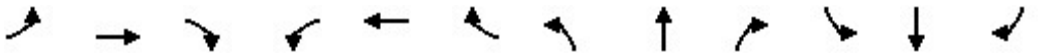
Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	28.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	189	13	6	169	5	22	79	23	21	54	40
Future Volume (Veh/h)	30	189	13	6	169	5	22	79	23	21	54	40
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	32	201	14	6	180	5	23	84	24	22	57	43
Pedestrians		10			1						7	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	192			215			548	476	209	540	480	200
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	192			215			548	476	209	540	480	200
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 %	98			100			94	82	97	94	88	95
cM capacity (veh/h)	1373			1355			372	471	831	367	469	830

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	247	191	131	122
Volume Left	32	6	23	22
Volume Right	14	5	24	43
cSH	1373	1355	487	523
Volume to Capacity	0.02	0.00	0.27	0.23
Queue Length 95th (m)	0.6	0.1	8.6	7.2
Control Delay (s)	1.2	0.3	15.1	14.0
Lane LOS	A	A	C	B
Approach Delay (s)	1.2	0.3	15.1	14.0
Approach LOS			C	B

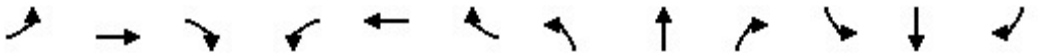
Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	17	18	32	43	37	31	327	35	35	340	8
Future Volume (Veh/h)	7	17	18	32	43	37	31	327	35	35	340	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	7	18	19	33	44	38	32	337	36	36	351	8
Pedestrians		5			4			18				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			0			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	911	873	378	896	859	359	364			377		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	911	873	378	896	859	359	364			377		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	97	93	97	85	84	94	97			97		
cM capacity (veh/h)	200	270	656	225	275	681	1190			1156		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	44	115	405	395
Volume Left	7	33	32	36
Volume Right	19	38	36	8
cSH	337	317	1190	1156
Volume to Capacity	0.13	0.36	0.03	0.03
Queue Length 95th (m)	3.6	12.8	0.7	0.8
Control Delay (s)	17.3	22.7	0.9	1.0
Lane LOS	C	C	A	A
Approach Delay (s)	17.3	22.7	0.9	1.0
Approach LOS	C	C		

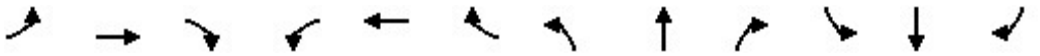
Intersection Summary				
Average Delay	4.3			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	238	5	5	550	83	5	5	5	30	5	100
Future Volume (Veh/h)	107	238	5	5	550	83	5	5	5	30	5	100
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	116	259	5	5	598	90	5	5	5	33	5	109
Pedestrians		5						8			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	694			272			818	1206	140	1028	1163	355
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	694			272			818	1206	140	1028	1163	355
tC, single (s)	4.2			4.1			7.5	6.5	7.3	7.6	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.6	4.0	3.3
p0 queue free %	87			100			97	97	99	79	97	83
cM capacity (veh/h)	886			1280			191	156	823	156	165	635

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	116	173	91	304	389	15	147
Volume Left	116	0	0	5	0	5	33
Volume Right	0	0	5	0	90	5	109
cSH	886	1700	1700	1280	1700	233	608
Volume to Capacity	0.13	0.10	0.05	0.00	0.23	0.06	0.24
Queue Length 95th (m)	3.6	0.0	0.0	0.1	0.0	1.6	7.5
Control Delay (s)	9.7	0.0	0.0	0.2	0.0	21.5	17.8
Lane LOS	A			A		C	C
Approach Delay (s)	3.0			0.1		21.5	17.8
Approach LOS						C	C

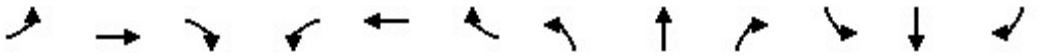
Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	42.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	141	55	31	216	35	14	27	18	16	15	179
Future Volume (Veh/h)	145	141	55	31	216	35	14	27	18	16	15	179
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	171	166	65	36	254	41	16	32	21	19	18	211
Pedestrians					7			6			1	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	296			172			1060	882	179	900	862	276
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	296			172			1060	882	179	900	862	276
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	86			97			86	86	97	90	93	72
cM capacity (veh/h)	1259			1398			118	237	832	198	245	763

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	171	166	65	36	295	16	53	248
Volume Left	171	0	0	36	0	16	0	19
Volume Right	0	0	65	0	41	0	21	211
cSH	1259	1700	1700	1398	1700	118	330	556
Volume to Capacity	0.14	0.10	0.04	0.03	0.17	0.14	0.16	0.45
Queue Length 95th (m)	3.8	0.0	0.0	0.6	0.0	3.6	4.5	18.3
Control Delay (s)	8.3	0.0	0.0	7.6	0.0	40.4	18.0	16.6
Lane LOS	A			A		E	C	C
Approach Delay (s)	3.5			0.8		23.2		16.6
Approach LOS						C		C

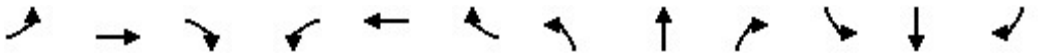
Intersection Summary				
Average Delay	7.1			
Intersection Capacity Utilization	50.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	22	28	30	26	38	16	342	47	53	365	11
Future Volume (Veh/h)	6	22	28	30	26	38	16	342	47	53	365	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	6	23	30	32	28	40	17	364	50	56	388	12
Pedestrians					2			6				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			1				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	983	956	400	978	937	391	400			416		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	983	956	400	978	937	391	400			416		
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 %	97	90	95	83	89	94	99			95		
cM capacity (veh/h)	186	241	642	192	248	650	1159			1141		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	59	100	431	456
Volume Left	6	32	17	56
Volume Right	30	40	50	12
cSH	339	293	1159	1141
Volume to Capacity	0.17	0.34	0.01	0.05
Queue Length 95th (m)	5.0	11.7	0.4	1.2
Control Delay (s)	17.9	23.5	0.5	1.5
Lane LOS	C	C	A	A
Approach Delay (s)	17.9	23.5	0.5	1.5
Approach LOS	C	C		

Intersection Summary				
Average Delay	4.1			
Intersection Capacity Utilization	60.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	509	5	5	462	92	5	5	5	81	5	269
Future Volume (Veh/h)	177	509	5	5	462	92	5	5	5	81	5	269
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	179	514	5	5	467	93	5	5	5	82	5	272
Pedestrians		1						3			1	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			0	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	561			522			1124	1448	262	1147	1404	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	561			522			1124	1448	262	1147	1404	282
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	82			100			94	95	99	35	96	62
cM capacity (veh/h)	1005			1038			82	106	734	127	113	714

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	179	343	176	238	326	15	359
Volume Left	179	0	0	5	0	5	82
Volume Right	0	0	5	0	93	5	272
cSH	1005	1700	1700	1038	1700	130	457
Volume to Capacity	0.18	0.20	0.10	0.00	0.19	0.12	0.78
Queue Length 95th (m)	5.2	0.0	0.0	0.1	0.0	3.0	55.9
Control Delay (s)	9.4	0.0	0.0	0.2	0.0	36.2	36.0
Lane LOS	A			A		E	E
Approach Delay (s)	2.4			0.1		36.2	36.0
Approach LOS						E	E

Intersection Summary				
Average Delay	9.3			
Intersection Capacity Utilization	51.5%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	299	142	65	321	26	62	19	97	11	15	168
Future Volume (Veh/h)	117	299	142	65	321	26	62	19	97	11	15	168
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	123	315	149	68	338	27	65	20	102	12	16	177
Pedestrians					9			6			5	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					1			1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	370			321			1226	1073	330	1174	1060	356
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	370			321			1226	1073	330	1174	1060	356
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 %	90			94			31	89	85	90	91	74
cM capacity (veh/h)	1184			1233			94	182	703	115	188	685

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	123	315	149	68	365	65	122	205
Volume Left	123	0	0	68	0	65	0	12
Volume Right	0	0	149	0	27	0	102	177
cSH	1184	1700	1700	1233	1700	94	479	457
Volume to Capacity	0.10	0.19	0.09	0.06	0.21	0.69	0.25	0.45
Queue Length 95th (m)	2.8	0.0	0.0	1.4	0.0	27.7	8.0	18.2
Control Delay (s)	8.4	0.0	0.0	8.1	0.0	104.0	15.1	19.1
Lane LOS	A			A		F	C	C
Approach Delay (s)	1.8			1.3		46.0		19.1
Approach LOS						E		C

Intersection Summary				
Average Delay	10.0			
Intersection Capacity Utilization	59.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	142	765	0	0	557
Future Volume (Veh/h)	0	142	765	0	0	557
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	160	860	0	0	626
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.74					
vC, conflicting volume	1486	860			860	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1481	860			860	
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	55			100	
cM capacity (veh/h)	102	356			781	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	160	860	626
Volume Left	0	0	0
Volume Right	160	0	0
cSH	356	1700	1700
Volume to Capacity	0.45	0.51	0.37
Queue Length 95th (m)	18.0	0.0	0.0
Control Delay (s)	23.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	23.1	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	126	31	1006	874
v/c Ratio	0.20	0.05	1.22	0.68
Control Delay	7.5	6.4	132.7	14.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.5	6.4	132.7	14.8
Queue Length 50th (m)	4.7	0.8	~73.2	31.6
Queue Length 95th (m)	13.1	4.6	#106.1	48.8
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	646	668	822	1281
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.20	0.05	1.22	0.68

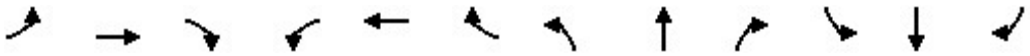
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	15	44	5	6	16	121	764	11	11	520	247
Future Volume (vph)	53	15	44	5	6	16	121	764	11	11	520	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.95	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1619			1580			3422			3279	
Flt Permitted		0.87			0.96			0.62			0.94	
Satd. Flow (perm)		1444			1534			2128			3069	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	60	17	49	6	7	18	136	858	12	12	584	278
RTOR Reduction (vph)	0	28	0	0	10	0	0	1	0	0	98	0
Lane Group Flow (vph)	0	98	0	0	21	0	0	1005	0	0	776	0
Confl. Peds. (#/hr)	8		23	23		8	2		3	3		2
Heavy Vehicles (%)	4%	7%	7%	2%	2%	13%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			21.6			21.6	
Effective Green, g (s)		24.0			24.0			21.6			21.6	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		618			657			820			1183	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.01			c0.47			0.25	
v/c Ratio		0.16			0.03			1.23			0.66	
Uniform Delay, d1		9.8			9.3			17.2			14.1	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.1			0.0			112.2			2.8	
Delay (s)		10.0			9.3			129.4			17.0	
Level of Service		A			A			F			B	
Approach Delay (s)		10.0			9.3			129.4			17.0	
Approach LOS		A			A			F			B	

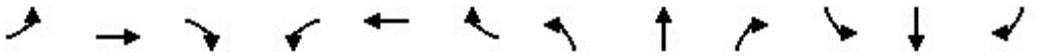
Intersection Summary			
HCM 2000 Control Delay	71.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	80.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	7	6	5	10	5	291	39	14	230	5
Future Volume (Veh/h)	5	5	7	6	5	10	5	291	39	14	230	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	6	8	7	6	12	6	338	45	16	267	6
Pedestrians		24			28			20			43	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			2			2			4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	756	749	314	734	730	432	297			411		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	756	749	314	734	730	432	297			411		
tC, single (s)	7.9	6.5	7.2	7.1	6.5	6.2	4.7			4.2		
tC, 2 stage (s)												
tF (s)	4.2	4.0	4.2	3.5	4.0	3.3	2.7			2.3		
p0 queue free %	97	98	98	98	98	98	99			99		
cM capacity (veh/h)	213	319	526	298	328	588	976			1095		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	20	25	389	289
Volume Left	6	7	6	16
Volume Right	8	12	45	6
cSH	321	402	976	1095
Volume to Capacity	0.06	0.06	0.01	0.01
Queue Length 95th (m)	1.6	1.6	0.1	0.4
Control Delay (s)	16.9	14.6	0.2	0.6
Lane LOS	C	B	A	A
Approach Delay (s)	16.9	14.6	0.2	0.6
Approach LOS	C	B		

Intersection Summary				
Average Delay	1.3			
Intersection Capacity Utilization	38.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	19	14	8	28	19	399	0	0	231	7
Future Volume (Veh/h)	7	0	19	14	8	28	19	399	0	0	231	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	7	0	20	15	8	29	20	416	0	0	241	7
Pedestrians		23			12			2			3	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	760	736	270	734	739	431	271			428		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	760	736	270	734	739	431	271			428		
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 %	98	100	97	95	98	95	98			100		
cM capacity (veh/h)	285	331	753	312	330	612	1251			1120		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	27	52	436	248
Volume Left	7	15	20	0
Volume Right	20	29	0	7
cSH	528	434	1251	1700
Volume to Capacity	0.05	0.12	0.02	0.15
Queue Length 95th (m)	1.3	3.2	0.4	0.0
Control Delay (s)	12.2	14.4	0.5	0.0
Lane LOS	B	B	A	
Approach Delay (s)	12.2	14.4	0.5	0.0
Approach LOS	B	B		

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	48.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	63	741	0	0	874
Future Volume (Veh/h)	0	63	741	0	0	874
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	71	833	0	0	982
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.74					
vC, conflicting volume	1815	833			833	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1926	833			833	
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	81			100	
cM capacity (veh/h)	54	369			800	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	833	982
Volume Left	0	0	0
Volume Right	71	0	0
cSH	369	1700	1700
Volume to Capacity	0.19	0.49	0.58
Queue Length 95th (m)	5.6	0.0	0.0
Control Delay (s)	17.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	17.1	0.0	0.0
Approach LOS	C		

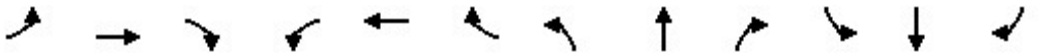
Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	49.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	188	23	782	1083
v/c Ratio	0.43	0.05	0.47	0.56
Control Delay	23.8	14.5	10.9	11.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.8	14.5	10.9	11.1
Queue Length 50th (m)	21.0	1.2	35.8	49.6
Queue Length 95th (m)	40.5	6.9	49.4	67.0
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	434	453	1668	1923
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.43	0.05	0.47	0.56

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	27	65	5	5	13	52	706	9	15	812	234
Future Volume (vph)	92	27	65	5	5	13	52	706	9	15	812	234
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.97	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1679			1620			3488			3403	
Flt Permitted		0.84			0.95			0.81			0.94	
Satd. Flow (perm)		1439			1552			2823			3203	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	94	28	66	5	5	13	53	720	9	15	829	239
RTOR Reduction (vph)	0	23	0	0	9	0	0	1	0	0	31	0
Lane Group Flow (vph)	0	165	0	0	14	0	0	781	0	0	1052	0
Confl. Peds. (#/hr)	13		13	13		13	3		9	9		3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	3%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			49.6			49.6	
Effective Green, g (s)		24.0			24.0			49.6			49.6	
Actuated g/C Ratio		0.29			0.29			0.59			0.59	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		411			443			1666			1891	
v/s Ratio Prot												
v/s Ratio Perm		c0.11			0.01			0.28			c0.33	
v/c Ratio		0.40			0.03			0.47			0.56	
Uniform Delay, d1		24.2			21.6			9.7			10.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.8			0.0			1.0			1.2	
Delay (s)		25.0			21.7			10.7			11.7	
Level of Service		C			C			B			B	
Approach Delay (s)		25.0			21.7			10.7			11.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	9	5	28	5	258	19	14	328	5
Future Volume (Veh/h)	5	5	5	9	5	28	5	258	19	14	328	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	6	6	10	6	31	6	290	21	16	369	6
Pedestrians		31			24			22			24	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	806	782	425	772	774	348	406			335		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	806	782	425	772	774	348	406			335		
tC, single (s)	7.9	6.7	7.0	7.1	6.5	6.2	4.9			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.2	4.0	3.5	4.0	3.3	2.9			2.2		
p0 queue free %	97	98	99	96	98	95	99			99		
cM capacity (veh/h)	192	286	471	281	308	667	811			1200		

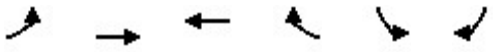
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	18	47	317	391
Volume Left	6	10	6	16
Volume Right	6	31	21	6
cSH	277	463	811	1200
Volume to Capacity	0.07	0.10	0.01	0.01
Queue Length 95th (m)	1.7	2.7	0.2	0.3
Control Delay (s)	18.9	13.7	0.3	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	18.9	13.7	0.3	0.5
Approach LOS	C	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	51	31	12	25	16	324	0	0	436	14
Future Volume (Veh/h)	15	0	51	31	12	25	16	324	0	0	436	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	16	0	54	33	13	26	17	341	0	0	459	15
Pedestrians		13			5			4			4	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	891	860	484	904	867	350	487			346		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	891	860	484	904	867	350	487			346		
tC, single (s)	7.2	6.9	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	100	91	85	95	96	98			100		
cM capacity (veh/h)	230	248	575	226	282	684	1064			1208		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	72	358	474
Volume Left	16	33	17	0
Volume Right	54	26	0	15
cSH	428	313	1064	1700
Volume to Capacity	0.16	0.23	0.02	0.28
Queue Length 95th (m)	4.6	7.0	0.4	0.0
Control Delay (s)	15.0	19.9	0.6	0.0
Lane LOS	C	C	A	
Approach Delay (s)	15.0	19.9	0.6	0.0
Approach LOS	C	C		

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	44.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	766	514	41	15	29
Future Volume (Veh/h)	34	766	514	41	15	29
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	37	824	553	44	16	31
Pedestrians		17	1		13	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	610				1075	328
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	610				1075	328
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	96				92	95
cM capacity (veh/h)	928				196	637

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	37	412	412	369	228	47
Volume Left	37	0	0	0	0	16
Volume Right	0	0	0	0	44	31
cSH	928	1700	1700	1700	1700	360
Volume to Capacity	0.04	0.24	0.24	0.22	0.13	0.13
Queue Length 95th (m)	1.0	0.0	0.0	0.0	0.0	3.6
Control Delay (s)	9.0	0.0	0.0	0.0	0.0	16.5
Lane LOS	A					C
Approach Delay (s)	0.4			0.0		16.5
Approach LOS						C

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	674	55	85	462	33	129
Future Volume (Veh/h)	674	55	85	462	33	129
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	717	59	90	491	35	137
Pedestrians				1	4	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked			0.99		0.99	0.99
vC, conflicting volume			780		1176	393
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			758		1158	367
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		79	78
cM capacity (veh/h)			825		165	618

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	478	298	90	246	246	35	137
Volume Left	0	0	90	0	0	35	0
Volume Right	0	59	0	0	0	0	137
cSH	1700	1700	825	1700	1700	165	618
Volume to Capacity	0.28	0.18	0.11	0.14	0.14	0.21	0.22
Queue Length 95th (m)	0.0	0.0	2.9	0.0	0.0	6.2	6.7
Control Delay (s)	0.0	0.0	9.9	0.0	0.0	32.6	12.5
Lane LOS			A			D	B
Approach Delay (s)	0.0		1.5			16.6	
Approach LOS						C	

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	351	634	5	573	154	153
v/c Ratio	0.66	0.32	0.02	0.57	0.37	0.32
Control Delay	16.0	7.3	16.2	18.5	19.9	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	7.3	16.2	18.5	19.9	5.7
Queue Length 50th (m)	13.7	12.7	0.3	21.8	12.8	0.4
Queue Length 95th (m)	#60.7	37.4	2.9	49.0	27.6	11.4
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	532	2258	283	1245	823	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.28	0.02	0.46	0.19	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	337	609	0	5	453	97	0	0	0	148	5	142
Future Volume (vph)	337	609	0	5	453	97	0	0	0	148	5	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1768	3471		1763	3288					1770	1537	
Flt Permitted	0.28	1.00		0.41	1.00					0.95	1.00	
Satd. Flow (perm)	521	3471		763	3288					1770	1537	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	351	634	0	5	472	101	0	0	0	154	5	148
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	113	0
Lane Group Flow (vph)	351	634	0	5	548	0	0	0	0	154	40	0
Confl. Peds. (#/hr)	6		7	7		6	6					6
Confl. Bikes (#/hr)			5									1
Heavy Vehicles (%)	2%	4%	2%	2%	6%	8%	2%	2%	2%	2%	2%	4%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	31.6	31.6		16.4	16.4					12.9	12.9	
Effective Green, g (s)	31.6	31.6		16.4	16.4					12.9	12.9	
Actuated g/C Ratio	0.58	0.58		0.30	0.30					0.24	0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	535	2012		229	989					418	363	
v/s Ratio Prot	c0.12	0.18			0.17						0.03	
v/s Ratio Perm	c0.26			0.01						c0.09		
v/c Ratio	0.66	0.32		0.02	0.55					0.37	0.11	
Uniform Delay, d1	7.0	5.9		13.4	16.0					17.4	16.3	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	3.0	0.1		0.0	0.7					0.7	0.2	
Delay (s)	10.0	6.0		13.5	16.7					18.0	16.5	
Level of Service	A	A		B	B					B	B	
Approach Delay (s)		7.4			16.7			0.0			17.3	
Approach LOS		A			B			A			B	

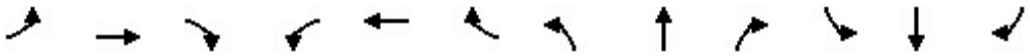
Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	58.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	356	9	5	194	16	11
Future Volume (Veh/h)	356	9	5	194	16	11
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	419	11	6	228	19	13
Pedestrians	3			9	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			435		672	438
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			435		672	438
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		95	98
cM capacity (veh/h)			1120		417	612

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	430	234	32
Volume Left	0	6	19
Volume Right	11	0	13
cSH	1700	1120	479
Volume to Capacity	0.25	0.01	0.07
Queue Length 95th (m)	0.0	0.1	1.7
Control Delay (s)	0.0	0.3	13.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.3	13.1
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	25	5	5	20	19	13	70	5	7	35	26
Future Volume (Veh/h)	31	25	5	5	20	19	13	70	5	7	35	26
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	33	27	5	5	21	20	14	74	5	7	37	28
Pedestrians		8			4			9			26	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	234	184	68	201	196	106	73			83		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	234	184	68	201	196	106	73			83		
tC, single (s)	7.1	6.6	6.2	7.1	6.6	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.1	3.3	2.2			2.3		
p0 queue free %	95	96	99	99	97	98	99			100		
cM capacity (veh/h)	655	683	981	710	670	924	1517			1437		

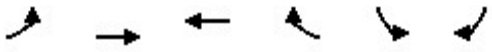
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	65	46	93	72
Volume Left	33	5	14	7
Volume Right	5	20	5	28
cSH	684	766	1517	1437
Volume to Capacity	0.10	0.06	0.01	0.00
Queue Length 95th (m)	2.5	1.5	0.2	0.1
Control Delay (s)	10.8	10.0	1.2	0.8
Lane LOS	B	B	A	A
Approach Delay (s)	10.8	10.0	1.2	0.8
Approach LOS	B	B		

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	6	15	4	14	9	19	393	19	13	267	163
Future Volume (Veh/h)	86	6	15	4	14	9	19	393	19	13	267	163
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	93	7	16	4	15	10	21	427	21	14	290	177
Pedestrians		7			1						12	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								231			135	
pX, platoon unblocked	0.94	0.94	0.91	0.94	0.94	0.95	0.91			0.95		
vC, conflicting volume	922	904	386	906	982	450	474			449		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	774	755	281	757	838	400	378			399		
tC, single (s)	7.1	6.7	6.2	7.3	6.6	6.3	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.2	3.3	3.7	4.1	3.4	2.2			2.3		
p0 queue free %	65	98	98	98	94	98	98			99		
cM capacity (veh/h)	266	289	689	259	261	595	1073			1076		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	116	29	469	481
Volume Left	93	4	21	14
Volume Right	16	10	21	177
cSH	292	323	1073	1076
Volume to Capacity	0.40	0.09	0.02	0.01
Queue Length 95th (m)	14.6	2.3	0.5	0.3
Control Delay (s)	25.2	17.2	0.6	0.4
Lane LOS	D	C	A	A
Approach Delay (s)	25.2	17.2	0.6	0.4
Approach LOS	D	C		

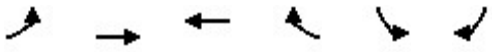
Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	49.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	337	192	18	28	60
Future Volume (Veh/h)	91	337	192	18	28	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	107	396	226	21	33	71
Pedestrians		3	9		4	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	1		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	251				860	244
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	251				860	244
tC, single (s)	4.1				6.7	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.7	3.4
p0 queue free %	92				88	91
cM capacity (veh/h)	1298				270	778

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	503	247	104
Volume Left	107	0	33
Volume Right	0	21	71
cSH	1298	1700	488
Volume to Capacity	0.08	0.15	0.21
Queue Length 95th (m)	2.2	0.0	6.4
Control Delay (s)	2.4	0.0	14.4
Lane LOS	A		B
Approach Delay (s)	2.4	0.0	14.4
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	26	609	790	58	13	37
Future Volume (Veh/h)	26	609	790	58	13	37
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	27	634	823	60	14	39
Pedestrians		10	1		8	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	891				1233	460
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	891				1233	460
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				91	93
cM capacity (veh/h)	751				162	540

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	27	317	317	549	334	53
Volume Left	27	0	0	0	0	14
Volume Right	0	0	0	0	60	39
cSH	751	1700	1700	1700	1700	334
Volume to Capacity	0.04	0.19	0.19	0.32	0.20	0.16
Queue Length 95th (m)	0.9	0.0	0.0	0.0	0.0	4.5
Control Delay (s)	10.0	0.0	0.0	0.0	0.0	17.8
Lane LOS	A					C
Approach Delay (s)	0.4			0.0		17.8
Approach LOS						C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	536	74	127	683	32	112
Future Volume (Veh/h)	536	74	127	683	32	112
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	541	75	128	690	32	113
Pedestrians				1	11	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked						
vC, conflicting volume			627		1190	320
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			627		1190	320
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		79	83
cM capacity (veh/h)			942		154	669

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	361	255	128	345	345	32	113
Volume Left	0	0	128	0	0	32	0
Volume Right	0	75	0	0	0	0	113
cSH	1700	1700	942	1700	1700	154	669
Volume to Capacity	0.21	0.15	0.14	0.20	0.20	0.21	0.17
Queue Length 95th (m)	0.0	0.0	3.8	0.0	0.0	6.0	4.8
Control Delay (s)	0.0	0.0	9.4	0.0	0.0	34.3	11.5
Lane LOS			A			D	B
Approach Delay (s)	0.0		1.5			16.5	
Approach LOS						C	

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	237	556	6	834	132	237
v/c Ratio	0.55	0.27	0.02	0.72	0.33	0.44
Control Delay	13.1	6.7	15.7	21.4	20.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	6.7	15.7	21.4	20.6	5.9
Queue Length 50th (m)	8.6	10.8	0.4	35.1	12.4	0.4
Queue Length 95th (m)	#40.4	32.3	3.3	#83.3	24.2	13.8
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	444	2234	297	1259	798	834
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.25	0.02	0.66	0.17	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	230	539	0	6	647	162	0	0	0	128	5	225
Future Volume (vph)	230	539	0	6	647	162	0	0	0	128	5	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1752	3539		1766	3414					1770	1568	
Flt Permitted	0.17	1.00		0.44	1.00					0.95	1.00	
Satd. Flow (perm)	313	3539		825	3414					1770	1568	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	237	556	0	6	667	167	0	0	0	132	5	232
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	179	0
Lane Group Flow (vph)	237	556	0	6	805	0	0	0	0	132	58	0
Confl. Peds. (#/hr)	1		3	3		1	1					1
Confl. Bikes (#/hr)			1			5						1
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	33.3	33.3		18.6	18.6					12.8	12.8	
Effective Green, g (s)	33.3	33.3		18.6	18.6					12.8	12.8	
Actuated g/C Ratio	0.59	0.59		0.33	0.33					0.23	0.23	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	434	2100		273	1131					403	357	
v/s Ratio Prot	c0.09	0.16			c0.24						0.04	
v/s Ratio Perm	0.23			0.01						c0.07		
v/c Ratio	0.55	0.26		0.02	0.71					0.33	0.16	
Uniform Delay, d1	7.4	5.5		12.6	16.4					18.1	17.4	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	1.6	0.1		0.0	2.2					0.6	0.3	
Delay (s)	9.0	5.6		12.7	18.6					18.6	17.6	
Level of Service	A	A		B	B					B	B	
Approach Delay (s)		6.6			18.6			0.0			18.0	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	56.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	62.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	241	14	6	295	16	18
Future Volume (Veh/h)	241	14	6	295	16	18
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	265	15	7	324	18	20
Pedestrians	1			5	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			285		616	282
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			285		616	282
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	97
cM capacity (veh/h)			1272		450	750

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	280	331	38
Volume Left	0	7	18
Volume Right	15	0	20
cSH	1700	1272	570
Volume to Capacity	0.16	0.01	0.07
Queue Length 95th (m)	0.0	0.1	1.7
Control Delay (s)	0.0	0.2	11.8
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	11.8
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	31.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	29	11	15	29	29	16	63	11	7	108	29
Future Volume (Veh/h)	38	29	11	15	29	29	16	63	11	7	108	29
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	41	32	12	16	32	32	17	68	12	8	117	32
Pedestrians		6			3			6			19	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	330	272	145	294	282	96	155			83		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	330	272	145	294	282	96	155			83		
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 %	93	95	99	97	95	97	99			99		
cM capacity (veh/h)	550	619	893	608	611	943	1418			1510		

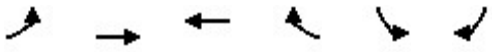
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	85	80	97	157
Volume Left	41	16	17	8
Volume Right	12	32	12	32
cSH	609	710	1418	1510
Volume to Capacity	0.14	0.11	0.01	0.01
Queue Length 95th (m)	3.9	3.0	0.3	0.1
Control Delay (s)	11.9	10.7	1.4	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.9	10.7	1.4	0.4
Approach LOS	B	B		

Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	27.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	22	17	7	14	15	34	316	21	3	351	342
Future Volume (Veh/h)	132	22	17	7	14	15	34	316	21	3	351	342
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	142	24	18	8	15	16	37	340	23	3	377	368
Pedestrians		5									7	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		0									1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								231			135	
pX, platoon unblocked	0.80	0.80	0.80	0.80	0.80		0.80					
vC, conflicting volume	1028	1009	566	1022	1182	358	750			363		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	909	885	330	902	1101	358	560			363		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	19	89	97	95	91	98	95			100		
cM capacity (veh/h)	176	209	566	175	160	682	803			1196		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	184	39	400	748
Volume Left	142	8	37	3
Volume Right	18	16	23	368
cSH	193	240	803	1196
Volume to Capacity	0.95	0.16	0.05	0.00
Queue Length 95th (m)	62.0	4.6	1.2	0.1
Control Delay (s)	103.0	22.9	1.4	0.1
Lane LOS	F	C	A	A
Approach Delay (s)	103.0	22.9	1.4	0.1
Approach LOS	F	C		

Intersection Summary				
Average Delay	14.9			
Intersection Capacity Utilization	66.2%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	39	234	282	29	21	108
Future Volume (Veh/h)	39	234	282	29	21	108
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	43	257	310	32	23	119
Pedestrians		1	5		1	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	343				675	328
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	343				675	328
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	96				94	83
cM capacity (veh/h)	1215				396	710

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	300	342	142
Volume Left	43	0	23
Volume Right	0	32	119
cSH	1215	1700	629
Volume to Capacity	0.04	0.20	0.23
Queue Length 95th (m)	0.9	0.0	6.9
Control Delay (s)	1.4	0.0	12.4
Lane LOS	A		B
Approach Delay (s)	1.4	0.0	12.4
Approach LOS			B

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	5	9	5	5	10	18	435	5	5	227	36
Future Volume (Veh/h)	33	5	9	5	5	10	18	435	5	5	227	36
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	36	5	10	5	5	11	20	478	5	5	249	40
Pedestrians		3			4							
Lane Width (m)		3.6			3.6							
Walking Speed (m/s)		1.2			1.2							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	814	809	272	796	826	484	292			487		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	814	809	272	796	826	484	292			487		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	87	98	99	98	98	98	98			100		
cM capacity (veh/h)	270	306	744	291	299	581	1217			1072		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	51	21	20	483	5	289
Volume Left	36	5	20	0	5	0
Volume Right	10	11	0	5	0	40
cSH	313	397	1217	1700	1072	1700
Volume to Capacity	0.16	0.05	0.02	0.28	0.00	0.17
Queue Length 95th (m)	4.6	1.3	0.4	0.0	0.1	0.0
Control Delay (s)	18.7	14.6	8.0	0.0	8.4	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	18.7	14.6	0.3		0.1	
Approach LOS	C	B				

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	36.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	5	30	5	6	5	126	397	5	5	163	61
Future Volume (Veh/h)	47	5	30	5	6	5	126	397	5	5	163	61
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	52	6	33	6	7	6	140	441	6	6	181	68
Pedestrians		2			6			5				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	739	962	132	874	993	230	251			453		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	739	962	132	874	993	230	251			453		
tC, single (s)	8.0	6.5	7.2	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	97	96	97	97	99	89			99		
cM capacity (veh/h)	237	225	855	208	216	769	1309			1098		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	91	19	140	294	153	6	121	128
Volume Left	52	6	140	0	0	6	0	0
Volume Right	33	6	0	0	6	0	0	68
cSH	320	275	1309	1700	1700	1098	1700	1700
Volume to Capacity	0.28	0.07	0.11	0.17	0.09	0.01	0.07	0.08
Queue Length 95th (m)	9.2	1.8	2.9	0.0	0.0	0.1	0.0	0.0
Control Delay (s)	20.7	19.1	8.1	0.0	0.0	8.3	0.0	0.0
Lane LOS	C	C	A			A		
Approach Delay (s)	20.7	19.1	1.9			0.2		
Approach LOS	C	C						

Intersection Summary				
Average Delay	3.6			
Intersection Capacity Utilization	34.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	45	158	502	67	68	296
Future Volume (Veh/h)	45	158	502	67	68	296
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	49	172	546	73	74	322
Pedestrians	2					6
Lane Width (m)	3.6					3.6
Walking Speed (m/s)	1.2					1.2
Percent Blockage	0					1
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1054	590			621	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1054	590			621	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	65			92	
cM capacity (veh/h)	229	499			958	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	221	619	74	322
Volume Left	49	0	74	0
Volume Right	172	73	0	0
cSH	641	1700	958	1700
Volume to Capacity	0.35	0.36	0.08	0.19
Queue Length 95th (m)	12.3	0.0	2.0	0.0
Control Delay (s)	18.0	0.0	9.1	0.0
Lane LOS	C		A	
Approach Delay (s)	18.0	0.0	1.7	
Approach LOS	C			

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	5	33	5	5	11	21	333	5	7	375	12
Future Volume (Veh/h)	79	5	33	5	5	11	21	333	5	7	375	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
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 (vph)	86	5	36	5	5	12	23	362	5	8	408	13
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	854	844	416	873	848	364	422			367		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	854	844	416	873	848	364	422			367		
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 %	67	98	94	98	98	98	98			99		
cM capacity (veh/h)	264	291	634	247	290	681	1136			1192		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	127	22	23	367	8	421
Volume Left	86	5	23	0	8	0
Volume Right	36	12	0	5	0	13
cSH	318	399	1136	1700	1192	1700
Volume to Capacity	0.40	0.06	0.02	0.22	0.01	0.25
Queue Length 95th (m)	14.8	1.4	0.5	0.0	0.2	0.0
Control Delay (s)	23.6	14.5	8.2	0.0	8.0	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	23.6	14.5	0.5		0.1	
Approach LOS	C	B				

Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	40.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	9	186	6	5	7	67	244	5	14	337	46
Future Volume (Veh/h)	89	9	186	6	5	7	67	244	5	14	337	46
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	98	10	204	7	5	8	74	268	5	15	370	51
Pedestrians					2			3				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	718	848	214	848	872	138	421			275		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	718	848	214	848	872	138	421			275		
tC, single (s)	7.6	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 %	66	96	74	96	98	99	93			99		
cM capacity (veh/h)	287	274	790	173	266	883	1135			1283		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	312	20	74	179	94	15	247	174
Volume Left	98	7	74	0	0	15	0	0
Volume Right	204	8	0	0	5	0	0	51
cSH	491	292	1135	1700	1700	1283	1700	1700
Volume to Capacity	0.64	0.07	0.07	0.11	0.06	0.01	0.15	0.10
Queue Length 95th (m)	35.1	1.8	1.7	0.0	0.0	0.3	0.0	0.0
Control Delay (s)	24.3	18.2	8.4	0.0	0.0	7.8	0.0	0.0
Lane LOS	C	C	A			A		
Approach Delay (s)	24.3	18.2	1.8			0.3		
Approach LOS	C	C						

Intersection Summary				
Average Delay	7.8			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	33	141	489	82	184	662
Future Volume (Veh/h)	33	141	489	82	184	662
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	36	155	537	90	202	727
Pedestrians						2
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1713	584			627	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1713	584			627	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	54	70			79	
cM capacity (veh/h)	79	511			955	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	191	627	202	727
Volume Left	36	0	202	0
Volume Right	155	90	0	0
cSH	417	1700	955	1700
Volume to Capacity	0.46	0.37	0.21	0.43
Queue Length 95th (m)	18.7	0.0	6.4	0.0
Control Delay (s)	28.2	0.0	9.8	0.0
Lane LOS	D		A	
Approach Delay (s)	28.2	0.0	2.1	
Approach LOS	D			

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	316	6	17	253	5	49
Future Volume (Veh/h)	316	6	17	253	5	49
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	363	7	20	291	6	56
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			370		698	366
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			370		698	366
tC, single (s)			4.3		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.3
p0 queue free %			98		98	92
cM capacity (veh/h)			1106		399	674

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	370	311	62
Volume Left	0	20	6
Volume Right	7	0	56
cSH	1700	1106	632
Volume to Capacity	0.22	0.02	0.10
Queue Length 95th (m)	0.0	0.4	2.6
Control Delay (s)	0.0	0.7	11.3
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	11.3
Approach LOS			B

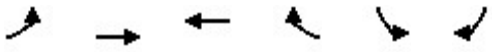
Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	57	46	162	190	7
Future Volume (Veh/h)	8	57	46	162	190	7
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	67	54	191	224	8
Pedestrians	14			6		
Lane Width (m)	3.6			3.6		
Walking Speed (m/s)	1.2			1.2		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	541	248	246			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	541	248	246			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	98	91	96			
cM capacity (veh/h)	439	777	1293			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	76	245	232
Volume Left	9	54	0
Volume Right	67	0	8
cSH	712	1293	1700
Volume to Capacity	0.11	0.04	0.14
Queue Length 95th (m)	2.9	1.0	0.0
Control Delay (s)	10.7	2.0	0.0
Lane LOS	B	A	
Approach Delay (s)	10.7	2.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	38.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	97	33	24	42	12
Future Volume (Veh/h)	50	97	33	24	42	12
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	59	114	39	28	49	14
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	67				285	53
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				285	53
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				93	99
cM capacity (veh/h)	1535				679	1015

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	173	67	63
Volume Left	59	0	49
Volume Right	0	28	14
cSH	1535	1700	733
Volume to Capacity	0.04	0.04	0.09
Queue Length 95th (m)	1.0	0.0	2.3
Control Delay (s)	2.7	0.0	10.4
Lane LOS	A		B
Approach Delay (s)	2.7	0.0	10.4
Approach LOS			B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	24.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	283	5	55	408	9	38
Future Volume (Veh/h)	283	5	55	408	9	38
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	333	6	65	480	11	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			339		946	336
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			339		946	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 %			95		96	94
cM capacity (veh/h)			1220		275	704

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	339	545	56
Volume Left	0	65	11
Volume Right	6	0	45
cSH	1700	1220	539
Volume to Capacity	0.20	0.05	0.10
Queue Length 95th (m)	0.0	1.3	2.8
Control Delay (s)	0.0	1.5	12.5
Lane LOS		A	B
Approach Delay (s)	0.0	1.5	12.5
Approach LOS			B

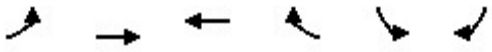
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	31	31	120	110	5
Future Volume (Veh/h)	7	31	31	120	110	5
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	36	36	141	129	6
Pedestrians	6			5	1	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	352	143	141			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352	143	141			
tC, single (s)	6.6	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	99	96	97			
cM capacity (veh/h)	602	896	1435			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	44	177	135
Volume Left	8	36	0
Volume Right	36	0	6
cSH	823	1435	1700
Volume to Capacity	0.05	0.03	0.08
Queue Length 95th (m)	1.4	0.6	0.0
Control Delay (s)	9.6	1.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	1.7	0.0
Approach LOS	A		

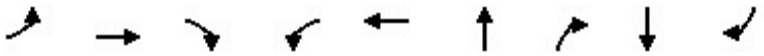
Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	26.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	17	60	85	35	37	57
Future Volume (Veh/h)	17	60	85	35	37	57
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	19	67	96	39	42	64
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	135				220	116
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	135				220	116
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	99				94	93
cM capacity (veh/h)	1425				756	937

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	86	135	106
Volume Left	19	0	42
Volume Right	0	39	64
cSH	1425	1700	856
Volume to Capacity	0.01	0.08	0.12
Queue Length 95th (m)	0.3	0.0	3.4
Control Delay (s)	1.8	0.0	9.8
Lane LOS	A		A
Approach Delay (s)	1.8	0.0	9.8
Approach LOS			A

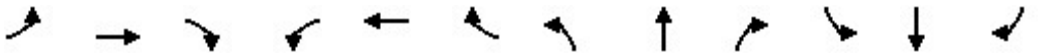
Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	23.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	431	131	468	186	92	598	22	6
v/c Ratio	0.02	0.72	0.23	0.76	0.15	0.38	0.80	0.08	0.02
Control Delay	19.6	30.0	5.9	19.0	5.7	30.6	12.7	25.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	30.0	5.9	19.0	5.7	30.6	12.7	25.2	0.0
Queue Length 50th (m)	0.5	47.9	0.3	24.3	7.3	10.7	2.7	2.4	0.0
Queue Length 95th (m)	3.4	102.0	12.2	#87.3	21.8	25.6	32.2	8.5	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	521	815	721	739	1527	489	921	575	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.53	0.18	0.63	0.12	0.19	0.65	0.04	0.01

Intersection Summary

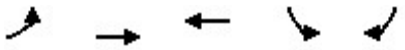
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	379	115	412	158	5	76	5	526	12	7	5
Future Volume (vph)	5	379	115	412	158	5	76	5	526	12	7	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1490	1751	1853			1651	1471		1726	1607
Flt Permitted	0.64	1.00	1.00	0.24	1.00			0.72	1.00		0.83	1.00
Satd. Flow (perm)	1193	1863	1490	450	1853			1251	1471		1477	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	431	131	468	180	6	86	6	598	14	8	6
RTOR Reduction (vph)	0	0	86	0	1	0	0	0	461	0	0	5
Lane Group Flow (vph)	6	431	45	468	185	0	0	92	137	0	22	1
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	22.1	22.1	22.1	44.0	44.0			13.1	13.1		13.1	13.1
Effective Green, g (s)	22.1	22.1	22.1	44.0	44.0			13.1	13.1		13.1	13.1
Actuated g/C Ratio	0.33	0.33	0.33	0.66	0.66			0.20	0.20		0.20	0.20
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	392	613	490	622	1215			244	287		288	313
v/s Ratio Prot		0.23		c0.19	0.10							
v/s Ratio Perm	0.01		0.03	c0.30				0.07	c0.09		0.01	0.00
v/c Ratio	0.02	0.70	0.09	0.75	0.15			0.38	0.48		0.08	0.00
Uniform Delay, d1	15.2	19.6	15.6	8.9	4.4			23.5	24.0		22.1	21.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	3.8	0.1	5.3	0.1			1.2	1.5		0.1	0.0
Delay (s)	15.2	23.4	15.7	14.2	4.5			24.6	25.4		22.2	21.8
Level of Service	B	C	B	B	A			C	C		C	C
Approach Delay (s)		21.5			11.4			25.3			22.1	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	67.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

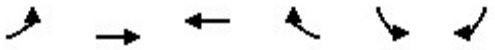
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	711	338	293	199	430
v/c Ratio	0.80	0.25	0.68	0.65	0.41
Control Delay	19.7	5.3	38.3	46.3	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	5.3	38.3	46.3	2.4
Queue Length 50th (m)	67.7	17.8	46.3	34.9	3.3
Queue Length 95th (m)	#139.0	33.3	79.6	60.4	14.4
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	944	1469	483	398	1115
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.75	0.23	0.61	0.50	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	661	314	175	98	185	400
Future Volume (vph)	661	314	175	98	185	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1750	1863	1718		1770	1542
Flt Permitted	0.29	1.00	1.00		0.95	1.00
Satd. Flow (perm)	540	1863	1718		1770	1542
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	711	338	188	105	199	430
RTOR Reduction (vph)	0	0	20	0	0	152
Lane Group Flow (vph)	711	338	273	0	199	278
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	64.1	64.1	21.7		15.6	53.0
Effective Green, g (s)	64.1	64.1	21.7		15.6	53.0
Actuated g/C Ratio	0.71	0.71	0.24		0.17	0.59
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	890	1331	415		307	997
v/s Ratio Prot	c0.33	0.18	0.16		c0.11	0.12
v/s Ratio Perm	c0.24					0.06
v/c Ratio	0.80	0.25	0.66		0.65	0.28
Uniform Delay, d1	11.8	4.5	30.7		34.5	9.0
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	5.2	0.1	3.9		4.9	0.2
Delay (s)	17.1	4.6	34.6		39.4	9.2
Level of Service	B	A	C		D	A
Approach Delay (s)		13.0	34.6		18.7	
Approach LOS		B	C		B	

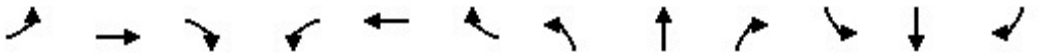
Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	5	8	14	5	7	13	645	19	8	538	15
Future Volume (Veh/h)	7	5	8	14	5	7	13	645	19	8	538	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	6	9	16	6	8	15	759	22	9	633	18
Pedestrians		3			20						19	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			2						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1493	1494	328	1166	1492	809	654			801		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1493	1494	328	1166	1492	809	654			801		
tC, single (s)	7.5	6.5	7.2	7.5	6.5	7.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	89	95	99	88	95	97	98			99		
cM capacity (veh/h)	75	116	632	134	117	284	887			804		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	23	30	796	326	334
Volume Left	8	16	15	9	0
Volume Right	9	8	22	0	18
cSH	134	151	887	804	1700
Volume to Capacity	0.17	0.20	0.02	0.01	0.20
Queue Length 95th (m)	4.8	5.7	0.4	0.3	0.0
Control Delay (s)	37.4	34.7	0.5	0.4	0.0
Lane LOS	E	D	A	A	
Approach Delay (s)	37.4	34.7	0.5	0.2	
Approach LOS	E	D			

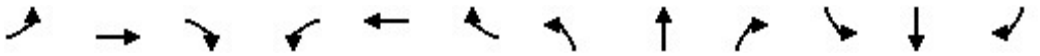
Intersection Summary				
Average Delay	1.6			
Intersection Capacity Utilization	60.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	204	14	28	261	39	8	22	25	10	23	86
Future Volume (Veh/h)	34	204	14	28	261	39	8	22	25	10	23	86
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	39	232	16	32	297	44	9	25	28	11	26	98
Pedestrians		11			14			15			7	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	348			263			767	745	269	754	731	337
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	348			263			767	745	269	754	731	337
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			98			96	92	96	96	92	86
cM capacity (veh/h)	1204			1285			227	317	726	273	323	695

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	39	248	32	341	62	135
Volume Left	39	0	32	0	9	11
Volume Right	0	16	0	44	28	98
cSH	1204	1700	1285	1700	395	957
Volume to Capacity	0.03	0.15	0.02	0.20	0.16	0.14
Queue Length 95th (m)	0.8	0.0	0.6	0.0	4.4	3.9
Control Delay (s)	8.1	0.0	7.9	0.0	15.8	13.0
Lane LOS	A		A		C	B
Approach Delay (s)	1.1		0.7		15.8	13.0
Approach LOS					C	B

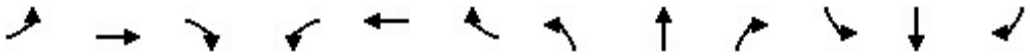
Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	147	25	60	206	16	20	46	43	12	25	12
Future Volume (Veh/h)	23	147	25	60	206	16	20	46	43	12	25	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	27	173	29	71	242	19	24	54	51	14	29	14
Pedestrians		11			8			21			20	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	281			223			686	686	216	726	690	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	281			223			686	686	216	726	690	282
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	98			95			92	84	94	94	91	98
cM capacity (veh/h)	1260			1322			296	331	801	244	329	737

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	27	202	71	261	129	57
Volume Left	27	0	71	0	24	14
Volume Right	0	29	0	19	51	14
cSH	1260	1700	1322	1700	419	347
Volume to Capacity	0.02	0.12	0.05	0.15	0.31	0.16
Queue Length 95th (m)	0.5	0.0	1.4	0.0	10.3	4.6
Control Delay (s)	7.9	0.0	7.9	0.0	17.3	17.4
Lane LOS	A		A		C	C
Approach Delay (s)	0.9		1.7		17.3	17.4
Approach LOS					C	C

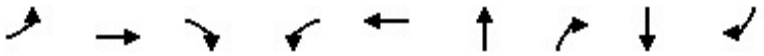
Intersection Summary				
Average Delay	5.4			
Intersection Capacity Utilization	35.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	52	13	138	6	26	6	237	154	10	7	145	30
Future Volume (vph)	52	13	138	6	26	6	237	154	10	7	145	30
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	61	15	162	7	31	7	279	181	12	8	171	35

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	238	45	472	214
Volume Left (vph)	61	7	279	8
Volume Right (vph)	162	7	12	35
Hadj (s)	-0.28	0.02	0.14	-0.06
Departure Headway (s)	5.5	6.2	5.2	5.4
Degree Utilization, x	0.36	0.08	0.68	0.32
Capacity (veh/h)	593	471	669	621
Control Delay (s)	11.6	9.8	18.6	10.9
Approach Delay (s)	11.6	9.8	18.6	10.9
Approach LOS	B	A	C	B

Intersection Summary				
Delay	14.8			
Level of Service	B			
Intersection Capacity Utilization	60.5%	ICU Level of Service	B	
Analysis Period (min)	15			



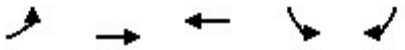
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	243	121	660	406	138	454	73	22
v/c Ratio	0.03	0.53	0.26	0.82	0.34	0.55	0.68	0.19	0.06
Control Delay	26.4	31.3	7.7	18.1	6.9	36.1	8.9	26.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	31.3	7.7	18.1	6.9	36.1	8.9	26.6	0.2
Queue Length 50th (m)	0.6	28.8	0.0	43.6	21.3	16.2	0.0	7.9	0.0
Queue Length 95th (m)	4.1	64.6	13.8	103.4	45.5	39.8	25.8	21.9	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	291	556	540	982	1558	405	796	605	585
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.44	0.22	0.67	0.26	0.34	0.57	0.12	0.04

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	219	109	594	360	5	119	5	409	5	60	20
Future Volume (vph)	5	219	109	594	360	5	119	5	409	5	60	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1527	1768	1858			1724	1497		1882	1607
Flt Permitted	0.52	1.00	1.00	0.39	1.00			0.68	1.00		0.97	1.00
Satd. Flow (perm)	975	1863	1527	720	1858			1233	1497		1842	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	6	243	121	660	400	6	132	6	454	6	67	22
RTOR Reduction (vph)	0	0	91	0	1	0	0	0	361	0	0	17
Lane Group Flow (vph)	6	243	30	660	405	0	0	138	93	0	73	5
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	17.4	17.4	17.4	45.3	45.3			14.3	14.3		14.3	14.3
Effective Green, g (s)	17.4	17.4	17.4	45.3	45.3			14.3	14.3		14.3	14.3
Actuated g/C Ratio	0.25	0.25	0.25	0.65	0.65			0.21	0.21		0.21	0.21
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	243	465	381	813	1209			253	307		378	330
v/s Ratio Prot		0.13		c0.27	0.22							
v/s Ratio Perm	0.01		0.02	c0.26				c0.11	0.06		0.04	0.00
v/c Ratio	0.02	0.52	0.08	0.81	0.34			0.55	0.30		0.19	0.01
Uniform Delay, d1	19.7	22.5	20.0	7.9	5.4			24.7	23.4		22.9	22.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	1.2	0.1	6.4	0.2			2.7	0.7		0.3	0.0
Delay (s)	19.7	23.7	20.1	14.3	5.6			27.4	24.1		23.2	22.1
Level of Service	B	C	C	B	A			C	C		C	C
Approach Delay (s)		22.5			11.0			24.9			22.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	69.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

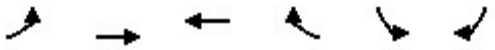
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	482	279	611	223	706
v/c Ratio	0.86	0.21	0.89	0.68	0.82
Control Delay	38.5	5.4	42.2	46.7	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	5.4	42.2	46.7	21.8
Queue Length 50th (m)	66.6	15.9	100.0	40.6	65.7
Queue Length 95th (m)	#134.3	27.2	#168.1	67.5	#135.5
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	580	1479	838	405	872
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.19	0.73	0.55	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



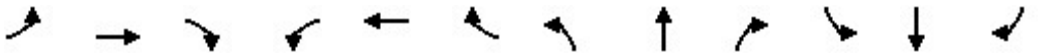
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	458	265	392	188	212	671
Future Volume (vph)	458	265	392	188	212	671
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1863	1755		1770	1563
Flt Permitted	0.12	1.00	1.00		0.95	1.00
Satd. Flow (perm)	221	1863	1755		1770	1563
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	482	279	413	198	223	706
RTOR Reduction (vph)	0	0	18	0	0	156
Lane Group Flow (vph)	482	279	593	0	223	550
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	62.5	62.5	34.0		16.6	40.1
Effective Green, g (s)	62.5	62.5	34.0		16.6	40.1
Actuated g/C Ratio	0.70	0.70	0.38		0.19	0.45
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	563	1306	669		329	791
v/s Ratio Prot	c0.23	0.15	0.34		0.13	c0.18
v/s Ratio Perm	c0.37					0.17
v/c Ratio	0.86	0.21	0.89		0.68	0.70
Uniform Delay, d1	22.5	4.7	25.7		33.8	19.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	12.4	0.1	13.7		5.7	2.8
Delay (s)	35.0	4.8	39.5		39.4	22.4
Level of Service	C	A	D		D	C
Approach Delay (s)		23.9	39.5		26.5	
Approach LOS		C	D		C	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	89.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	15	5	16	5	622	22	9	848	5
Future Volume (Veh/h)	5	5	5	15	5	16	5	622	22	9	848	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	5	5	16	5	17	5	655	23	9	893	5
Pedestrians		3			3						20	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			0						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1632	1608	452	1152	1598	690	901			681		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1632	1608	452	1152	1598	690	901			681		
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 %	92	95	99	89	95	96	99			99		
cM capacity (veh/h)	59	102	553	143	103	380	748			905		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	15	38	683	456	452
Volume Left	5	16	5	9	0
Volume Right	5	17	23	0	5
cSH	105	185	748	905	1700
Volume to Capacity	0.14	0.21	0.01	0.01	0.27
Queue Length 95th (m)	3.8	6.0	0.2	0.2	0.0
Control Delay (s)	44.7	29.4	0.2	0.3	0.0
Lane LOS	E	D	A	A	
Approach Delay (s)	44.7	29.4	0.2	0.1	
Approach LOS	E	D			

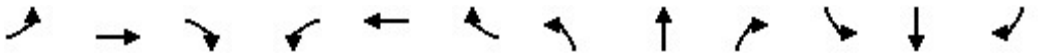
Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	53.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	286	23	32	297	29	20	25	60	29	33	95
Future Volume (Veh/h)	22	286	23	32	297	29	20	25	60	29	33	95
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	24	318	26	36	330	32	22	28	67	32	37	106
Pedestrians		32			7			36			13	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			3			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	375			380			920	862	374	885	859	391
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	375			380			920	862	374	885	859	391
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 %	98			97			87	89	90	84	86	83
cM capacity (veh/h)	1155			1138			165	266	642	200	266	633

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	24	344	36	362	117	175
Volume Left	24	0	36	0	22	32
Volume Right	0	26	0	32	67	106
cSH	1155	1700	1138	1700	341	598
Volume to Capacity	0.02	0.20	0.03	0.21	0.34	0.29
Queue Length 95th (m)	0.5	0.0	0.8	0.0	11.9	9.7
Control Delay (s)	8.2	0.0	8.3	0.0	21.0	17.6
Lane LOS	A		A		C	C
Approach Delay (s)	0.5		0.7		21.0	17.6
Approach LOS					C	C

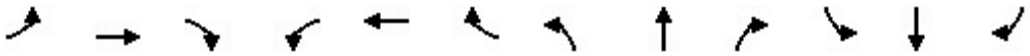
Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	263	29	37	202	5	28	46	68	15	23	22
Future Volume (Veh/h)	9	263	29	37	202	5	28	46	68	15	23	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	10	283	31	40	217	5	30	49	73	16	25	24
Pedestrians		12			3			16			6	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	228			330			680	642	318	709	656	238
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	228			330			680	642	318	709	656	238
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			97			90	87	90	94	93	97
cM capacity (veh/h)	1272			1213			313	369	712	262	363	789

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	10	314	40	222	152	65
Volume Left	10	0	40	0	30	16
Volume Right	0	31	0	5	73	24
cSH	1272	1700	1213	1700	459	406
Volume to Capacity	0.01	0.18	0.03	0.13	0.33	0.16
Queue Length 95th (m)	0.2	0.0	0.8	0.0	11.5	4.5
Control Delay (s)	7.9	0.0	8.1	0.0	16.7	15.6
Lane LOS	A		A		C	C
Approach Delay (s)	0.2		1.2		16.7	15.6
Approach LOS					C	C

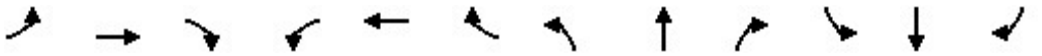
Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	39.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	36	20	198	5	8	5	241	147	8	6	154	22
Future Volume (vph)	36	20	198	5	8	5	241	147	8	6	154	22
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	38	21	206	5	8	5	251	153	8	6	160	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	265	18	412	189
Volume Left (vph)	38	5	251	6
Volume Right (vph)	206	5	8	23
Hadj (s)	-0.40	-0.08	0.15	0.00
Departure Headway (s)	5.1	5.9	5.1	5.3
Degree Utilization, x	0.37	0.03	0.58	0.28
Capacity (veh/h)	651	501	675	638
Control Delay (s)	11.1	9.1	15.0	10.3
Approach Delay (s)	11.1	9.1	15.0	10.3
Approach LOS	B	A	B	B

Intersection Summary				
Delay	12.7			
Level of Service	B			
Intersection Capacity Utilization	58.6%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	161	55	0	292	5	21	12	7	0	0	35
Future Volume (Veh/h)	5	161	55	0	292	5	21	12	7	0	0	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	173	59	0	314	5	23	13	8	0	0	38
Pedestrians		21			1			6				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		2			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	314			179			594	532	210	544	506	338
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	314			179			594	532	210	544	506	338
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 %	100			100			94	97	99	100	100	95
cM capacity (veh/h)	1246			1390			382	449	826	432	465	692

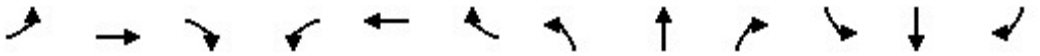
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	237	319	44	38
Volume Left	5	0	23	0
Volume Right	59	5	8	38
cSH	1246	1700	445	692
Volume to Capacity	0.00	0.19	0.10	0.05
Queue Length 95th (m)	0.1	0.0	2.6	1.4
Control Delay (s)	0.2	0.0	14.0	10.5
Lane LOS	A		B	B
Approach Delay (s)	0.2	0.0	14.0	10.5
Approach LOS			B	B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	309	55	50	131	5	28	5	87	5	5	5
Future Volume (Veh/h)	5	309	55	50	131	5	28	5	87	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	5	336	60	54	142	5	30	5	95	5	5	5
Pedestrians		1			40			31			18	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			3			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	165			427			668	680	437	784	708	164
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	165			427			668	680	437	784	708	164
tC, single (s)	4.3			4.2			7.1	6.7	6.3	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.4			2.3			3.5	4.2	3.4	3.5	4.0	3.6
p0 queue free %	100			95			91	98	83	98	98	99
cM capacity (veh/h)	1291			1068			328	319	575	227	327	794

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	401	201	35	95	15
Volume Left	5	54	30	0	5
Volume Right	60	5	0	95	5
cSH	1291	1068	327	575	344
Volume to Capacity	0.00	0.05	0.11	0.17	0.04
Queue Length 95th (m)	0.1	1.3	2.9	4.7	1.1
Control Delay (s)	0.1	2.6	17.3	12.5	16.0
Lane LOS	A	A	C	B	C
Approach Delay (s)	0.1	2.6	13.8		16.0
Approach LOS			B		C

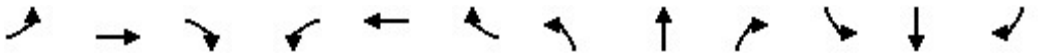
Intersection Summary				
Average Delay	3.5			
Intersection Capacity Utilization	52.7%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	213	17	35	183	32	5	21	10	5	21	17
Future Volume (Veh/h)	23	213	17	35	183	32	5	21	10	5	21	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	27	251	20	41	215	38	6	25	12	6	25	20
Pedestrians		14			12			27			51	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	304			298			704	728	300	718	719	299
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	304			298			704	728	300	718	719	299
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 %	98			97			98	92	98	98	92	97
cM capacity (veh/h)	1187			1235			283	310	716	274	313	701

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	298	294	43	51
Volume Left	27	41	6	6
Volume Right	20	38	12	20
cSH	1187	1235	362	392
Volume to Capacity	0.02	0.03	0.12	0.13
Queue Length 95th (m)	0.6	0.8	3.2	3.6
Control Delay (s)	0.9	1.4	16.3	15.6
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	1.4	16.3	15.6
Approach LOS			C	C

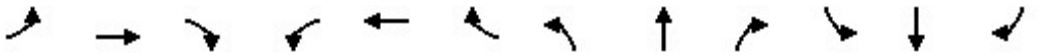
Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	167	21	23	166	26	13	12	17	7	13	17
Future Volume (Veh/h)	29	167	21	23	166	26	13	12	17	7	13	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	33	190	24	26	189	30	15	14	19	8	15	19
Pedestrians		34			12			1			39	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			0			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	258			215			586	579	215	601	576	277
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	258			215			586	579	215	601	576	277
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.5
p0 queue free %	97			98			96	96	98	98	96	97
cM capacity (veh/h)	1215			1354			364	393	816	353	395	667

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	247	245	48	42
Volume Left	33	26	15	8
Volume Right	24	30	19	19
cSH	1215	1354	479	471
Volume to Capacity	0.03	0.02	0.10	0.09
Queue Length 95th (m)	0.7	0.5	2.7	2.3
Control Delay (s)	1.3	1.0	13.3	13.4
Lane LOS	A	A	B	B
Approach Delay (s)	1.3	1.0	13.3	13.4
Approach LOS			B	B

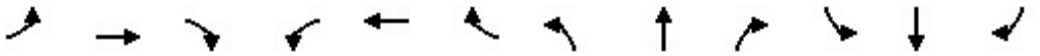
Intersection Summary				
Average Delay	3.0			
Intersection Capacity Utilization	33.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	314	107	0	217	5	15	5	5	0	0	24
Future Volume (Veh/h)	8	314	107	0	217	5	15	5	5	0	0	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	9	341	116	0	236	5	16	5	5	0	0	26
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	236			342			682	654	400	663	598	238
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	236			342			682	654	400	663	598	238
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 %	99			100			95	99	99	100	100	97
cM capacity (veh/h)	1331			1216			349	383	649	366	412	800

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	466	241	26	26
Volume Left	9	0	16	0
Volume Right	116	5	5	26
cSH	1331	1700	391	800
Volume to Capacity	0.01	0.14	0.07	0.03
Queue Length 95th (m)	0.2	0.0	1.7	0.8
Control Delay (s)	0.2	0.0	14.9	9.6
Lane LOS	A		B	A
Approach Delay (s)	0.2	0.0	14.9	9.6
Approach LOS			B	A

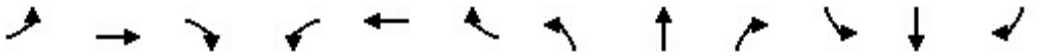
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	307	50	100	308	5	44	5	143	7	5	28
Future Volume (Veh/h)	5	307	50	100	308	5	44	5	143	7	5	28
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	330	54	108	331	5	47	5	154	8	5	30
Pedestrians		2			43			38			27	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			4			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	363			422			989	984	438	1143	1008	362
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	363			422			989	984	438	1143	1008	362
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 %	100			90			74	98	73	92	98	95
cM capacity (veh/h)	1169			1101			181	211	578	106	204	661

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	389	444	52	154	43
Volume Left	5	108	47	0	8
Volume Right	54	5	0	154	30
cSH	1169	1101	184	578	297
Volume to Capacity	0.00	0.10	0.28	0.27	0.14
Queue Length 95th (m)	0.1	2.6	8.9	8.6	4.0
Control Delay (s)	0.1	2.9	32.2	13.5	19.2
Lane LOS	A	A	D	B	C
Approach Delay (s)	0.1	2.9	18.2		19.2
Approach LOS			C		C

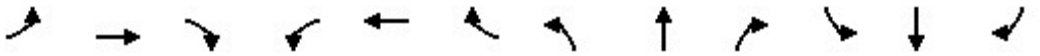
Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	64.4%	ICU Level of Service		C
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	318	29	33	309	36	5	39	38	15	27	79
Future Volume (Veh/h)	45	318	29	33	309	36	5	39	38	15	27	79
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	47	335	31	35	325	38	5	41	40	16	28	83
Pedestrians		33			40			119			122	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			3			10			10	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	485			485			1108	1118	510	1081	1115	499
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	485			485			1108	1118	510	1081	1115	499
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			96			95	73	92	84	82	83
cM capacity (veh/h)	968			971			95	154	491	100	154	499

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	413	398	86	127
Volume Left	47	35	5	16
Volume Right	31	38	40	83
cSH	968	971	214	250
Volume to Capacity	0.05	0.04	0.40	0.51
Queue Length 95th (m)	1.2	0.9	14.4	21.1
Control Delay (s)	1.5	1.1	32.6	33.3
Lane LOS	A	A	D	D
Approach Delay (s)	1.5	1.1	32.6	33.3
Approach LOS			D	D

Intersection Summary			
Average Delay	7.9		
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	294	26	23	266	34	12	14	29	21	22	45
Future Volume (Veh/h)	26	294	26	23	266	34	12	14	29	21	22	45
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	27	306	27	24	277	35	12	15	30	22	23	47
Pedestrians		51			35			1			71	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			3			0			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	383			334			826	806	356	860	802	416
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	383			334			826	806	356	860	802	416
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	98			98			95	95	95	90	92	92
cM capacity (veh/h)	1096			1224			221	284	663	214	282	554

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	360	336	57	92
Volume Left	27	24	12	22
Volume Right	27	35	30	47
cSH	1096	1224	374	342
Volume to Capacity	0.02	0.02	0.15	0.27
Queue Length 95th (m)	0.6	0.5	4.3	8.6
Control Delay (s)	0.9	0.7	16.4	19.4
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	0.7	16.4	19.4
Approach LOS			C	C

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	6	24	5	5	31	18	482	8	16	244	29
Future Volume (Veh/h)	19	6	24	5	5	31	18	482	8	16	244	29
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	22	7	27	6	6	35	20	548	9	18	277	33
Pedestrians		14			6			1			10	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	980	946	308	943	958	568	324			563		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	980	946	308	943	958	568	324			563		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	97	96	97	98	93	98			98		
cM capacity (veh/h)	197	248	706	218	244	511	1221			1003		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	56	47	20	557	18	310
Volume Left	22	6	20	0	18	0
Volume Right	27	35	0	9	0	33
cSH	315	390	1221	1700	1003	1700
Volume to Capacity	0.18	0.12	0.02	0.33	0.02	0.18
Queue Length 95th (m)	5.1	3.3	0.4	0.0	0.4	0.0
Control Delay (s)	18.9	15.5	8.0	0.0	8.7	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	18.9	15.5	0.3		0.5	
Approach LOS	C	C				

Intersection Summary				
Average Delay	2.1			
Intersection Capacity Utilization	39.5%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	7	64	5	19	43	52	338	5	8	181	60
Future Volume (Veh/h)	134	7	64	5	19	43	52	338	5	8	181	60
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	146	8	70	5	21	47	57	367	5	9	197	65
Pedestrians		11			2						5	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	802	746	240	774	776	376	273			374		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	802	746	240	774	776	376	273			374		
tC, single (s)	7.1	6.5	6.2	7.1	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 %	42	98	91	98	93	93	96			99		
cM capacity (veh/h)	250	320	791	268	308	649	1278			1183		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	154	70	73	57	372	9	262
Volume Left	146	0	5	57	0	9	0
Volume Right	0	70	47	0	5	0	65
cSH	253	791	458	1278	1700	1183	1700
Volume to Capacity	0.61	0.09	0.16	0.04	0.22	0.01	0.15
Queue Length 95th (m)	28.9	2.3	4.5	1.1	0.0	0.2	0.0
Control Delay (s)	39.2	10.0	14.3	7.9	0.0	8.1	0.0
Lane LOS	E	A	B	A		A	
Approach Delay (s)	30.1		14.3	1.1		0.3	
Approach LOS	D		B				

Intersection Summary				
Average Delay	8.3			
Intersection Capacity Utilization	45.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	79	5	5	126	117	39
Future Volume (Veh/h)	79	5	5	126	117	39
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	82	5	5	131	122	41
Pedestrians	2			2	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	290	146	165			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	290	146	165			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	99	100			
cM capacity (veh/h)	694	898	1411			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	87	136	163
Volume Left	82	5	0
Volume Right	5	0	41
cSH	703	1411	1700
Volume to Capacity	0.12	0.00	0.10
Queue Length 95th (m)	3.4	0.1	0.0
Control Delay (s)	10.8	0.3	0.0
Lane LOS	B	A	
Approach Delay (s)	10.8	0.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	14	21	8	23	10	27	188	43	5	129	25
Future Volume (Veh/h)	13	14	21	8	23	10	27	188	43	5	129	25
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	15	16	24	9	26	11	31	216	49	6	148	29
Pedestrians		38			8			7			12	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	512	533	193	485	513	236	215			273		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	512	533	193	485	513	236	215			273		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.4		
p0 queue free %	96	96	97	98	94	99	98			99		
cM capacity (veh/h)	397	423	810	435	430	790	1312			1185		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	55	46	247	49	154	29
Volume Left	15	9	31	0	6	0
Volume Right	24	11	0	49	0	29
cSH	522	484	1312	1700	1185	1700
Volume to Capacity	0.11	0.10	0.02	0.03	0.01	0.02
Queue Length 95th (m)	2.8	2.5	0.6	0.0	0.1	0.0
Control Delay (s)	12.7	13.2	1.2	0.0	0.4	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	12.7	13.2	1.0		0.3	
Approach LOS	B	B				

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	40.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	21	17	0	9	0	347	50	5	206	0
Future Volume (Veh/h)	20	5	21	17	0	9	0	347	50	5	206	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	23	6	24	19	0	10	0	394	57	6	234	0
Pedestrians		17			9			1			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	700	723	252	706	694	436	251			460		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	700	723	252	706	694	436	251			460		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	93	98	97	94	100	98	100			99		
cM capacity (veh/h)	330	343	775	321	356	613	1296			1093		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	53	29	451	240
Volume Left	23	19	0	6
Volume Right	24	10	57	0
cSH	448	384	1700	1093
Volume to Capacity	0.12	0.08	0.27	0.01
Queue Length 95th (m)	3.2	1.9	0.0	0.1
Control Delay (s)	14.1	15.1	0.0	0.3
Lane LOS	B	C		A
Approach Delay (s)	14.1	15.1	0.0	0.3
Approach LOS	B	C		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	5	18	5	8	53	29	462	5	22	429	53
Future Volume (Veh/h)	20	5	18	5	8	53	29	462	5	22	429	53
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	22	5	20	5	9	58	32	502	5	24	466	58
Pedestrians		29			5			1			21	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1222	1148	525	1111	1174	530	553			512		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1222	1148	525	1111	1174	530	553			512		
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 %	82	97	96	97	95	89	97			98		
cM capacity (veh/h)	121	183	539	164	176	537	983			1049		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	47	72	32	507	24	524
Volume Left	22	5	32	0	24	0
Volume Right	20	58	0	5	0	58
cSH	190	380	983	1700	1049	1700
Volume to Capacity	0.25	0.19	0.03	0.30	0.02	0.31
Queue Length 95th (m)	7.5	5.5	0.8	0.0	0.6	0.0
Control Delay (s)	30.0	16.7	8.8	0.0	8.5	0.0
Lane LOS	D	C	A		A	
Approach Delay (s)	30.0	16.7	0.5		0.4	
Approach LOS	D	C				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	42.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	6	24	5	32	59	48	310	5	10	282	142
Future Volume (Veh/h)	109	6	24	5	32	59	48	310	5	10	282	142
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	114	6	25	5	33	61	50	323	5	10	294	148
Pedestrians		19			2						1	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		2			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	908	837	387	770	908	328	461			330		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	908	837	387	770	908	328	461			330		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	42	98	96	98	87	91	95			99		
cM capacity (veh/h)	196	281	651	284	256	711	1083			1179		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	120	25	99	50	328	10	442
Volume Left	114	0	5	50	0	10	0
Volume Right	0	25	61	0	5	0	148
cSH	199	651	426	1083	1700	1179	1700
Volume to Capacity	0.60	0.04	0.23	0.05	0.19	0.01	0.26
Queue Length 95th (m)	27.1	1.0	7.1	1.2	0.0	0.2	0.0
Control Delay (s)	47.1	10.8	16.0	8.5	0.0	8.1	0.0
Lane LOS	E	B	C	A		A	
Approach Delay (s)	40.8		16.0	1.1		0.2	
Approach LOS	E		C				

Intersection Summary				
Average Delay	7.5			
Intersection Capacity Utilization	50.5%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	61	7	11	171	112	97
Future Volume (Veh/h)	61	7	11	171	112	97
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	69	8	12	192	126	109
Pedestrians	1			1	3	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	400	182	236			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	400	182	236			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	99	99			
cM capacity (veh/h)	598	859	1330			

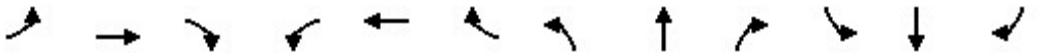
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	77	204	235
Volume Left	69	12	0
Volume Right	8	0	109
cSH	617	1330	1700
Volume to Capacity	0.12	0.01	0.14
Queue Length 95th (m)	3.4	0.2	0.0
Control Delay (s)	11.7	0.5	0.0
Lane LOS	B	A	
Approach Delay (s)	11.7	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	28.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	34	75	31	60	20	38	295	52	10	215	83
Future Volume (Veh/h)	46	34	75	31	60	20	38	295	52	10	215	83
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	49	37	81	33	65	22	41	317	56	11	231	89
Pedestrians		42			20			14			33	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			2			1			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	782	770	287	786	803	370	362			393		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	782	770	287	786	803	370	362			393		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	77	87	89	85	77	97	96			99		
cM capacity (veh/h)	217	296	717	225	287	646	1155			1146		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	167	120	358	56	242	89
Volume Left	49	33	41	0	11	0
Volume Right	81	22	0	56	0	89
cSH	360	295	1155	1700	1146	1700
Volume to Capacity	0.46	0.41	0.04	0.03	0.01	0.05
Queue Length 95th (m)	18.9	15.2	0.9	0.0	0.2	0.0
Control Delay (s)	23.3	25.4	1.3	0.0	0.5	0.0
Lane LOS	C	D	A		A	
Approach Delay (s)	23.3	25.4	1.1		0.3	
Approach LOS	C	D				

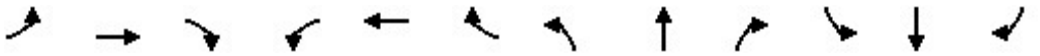
Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	53.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	5	37	53	0	26	0	438	40	14	358	0
Future Volume (Veh/h)	31	5	37	53	0	26	0	438	40	14	358	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	34	6	41	59	0	29	0	487	44	16	398	0
Pedestrians		40			20			10			15	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1023	1021	448	1013	999	544	438			551		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1023	1021	448	1013	999	544	438			551		
tC, single (s)	7.2	6.9	6.2	7.1	7.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.9	3.3	2.2			2.2		
p0 queue free %	81	97	93	68	100	94	100			98		
cM capacity (veh/h)	176	190	585	183	157	520	1084			1002		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	81	88	531	414
Volume Left	34	59	0	16
Volume Right	41	29	44	0
cSH	275	233	1700	1002
Volume to Capacity	0.29	0.38	0.31	0.02
Queue Length 95th (m)	9.5	13.4	0.0	0.4
Control Delay (s)	23.4	29.6	0.0	0.5
Lane LOS	C	D		A
Approach Delay (s)	23.4	29.6	0.0	0.5
Approach LOS	C	D		

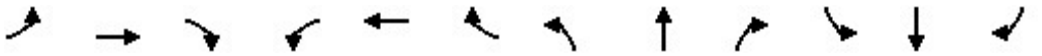
Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	46.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	801	5	8	627	11	5	5	22	5	5	5
Future Volume (Veh/h)	5	801	5	8	627	11	5	5	22	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	921	6	9	721	13	6	6	25	6	6	6
Pedestrians		1						5			14	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	748			932			1330	1707	468	1260	1704	382
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	748			932			1330	1707	468	1260	1704	382
tC, single (s)	4.5			4.1			7.5	6.5	6.9	8.5	6.5	7.7
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.0	3.3	4.0	4.0	3.7
p0 queue free %	99			99			94	93	95	92	93	99
cM capacity (veh/h)	739			727			102	87	539	74	87	513

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	466	466	370	374	37	18
Volume Left	6	0	9	0	6	6
Volume Right	0	6	0	13	25	6
cSH	739	1700	727	1700	213	112
Volume to Capacity	0.01	0.27	0.01	0.22	0.17	0.16
Queue Length 95th (m)	0.2	0.0	0.3	0.0	4.9	4.4
Control Delay (s)	0.2	0.0	0.4	0.0	25.5	43.3
Lane LOS	A		A		D	E
Approach Delay (s)	0.1		0.2		25.5	43.3
Approach LOS					D	E

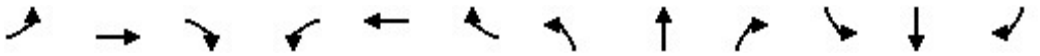
Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	744	5	5	420	42	5	5	5	11	5	27
Future Volume (Veh/h)	37	744	5	5	420	42	5	5	5	11	5	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	39	775	5	5	438	44	5	5	5	11	5	28
Pedestrians								6			1	
Lane Width (m)								3.6			3.6	
Walking Speed (m/s)								1.2			1.2	
Percent Blockage								1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	483			786			1121	1354	396	944	1335	242
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	483			786			1121	1354	396	944	1335	242
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	96			99			97	96	99	95	97	96
cM capacity (veh/h)	1075			825			145	141	600	202	145	758

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	39	517	263	224	263	15	16	28
Volume Left	39	0	0	5	0	5	11	0
Volume Right	0	0	5	0	44	5	0	28
cSH	1075	1700	1700	825	1700	192	180	758
Volume to Capacity	0.04	0.30	0.15	0.01	0.15	0.08	0.09	0.04
Queue Length 95th (m)	0.9	0.0	0.0	0.1	0.0	2.0	2.3	0.9
Control Delay (s)	8.5	0.0	0.0	0.3	0.0	25.4	27.0	9.9
Lane LOS	A			A		D	D	A
Approach Delay (s)	0.4			0.1		25.4	16.1	
Approach LOS						D	C	

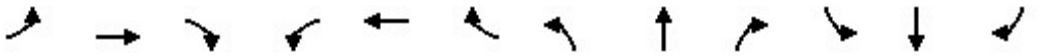
Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	42.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	160	8	44	289	13	5	51	14	4	45	75
Future Volume (Veh/h)	47	160	8	44	289	13	5	51	14	4	45	75
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	55	188	9	52	340	15	6	60	16	5	53	88
Pedestrians		38						24			24	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		3						2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	379			221			930	810	216	824	806	410
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	379			221			930	810	216	824	806	410
tC, single (s)	4.1			4.1			7.1	6.6	6.3	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.4	3.5	4.0	3.4
p0 queue free %	95			96			96	78	98	98	81	85
cM capacity (veh/h)	1156			1321			156	272	792	212	277	601

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	252	407	82	146
Volume Left	55	52	6	5
Volume Right	9	15	16	88
cSH	1156	1321	294	404
Volume to Capacity	0.05	0.04	0.28	0.36
Queue Length 95th (m)	1.2	1.0	8.9	12.9
Control Delay (s)	2.2	1.3	21.9	18.9
Lane LOS	A	A	C	C
Approach Delay (s)	2.2	1.3	21.9	18.9
Approach LOS			C	C

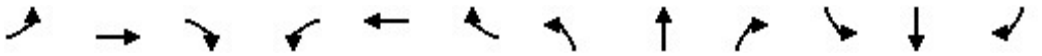
Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	40.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	639	5	29	951	8	5	5	31	8	5	5
Future Volume (Veh/h)	5	639	5	29	951	8	5	5	31	8	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	5	659	5	30	980	8	5	5	32	8	5	5
Pedestrians		3						5			8	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	996			669			1237	1732	337	1426	1731	505
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	996			669			1237	1732	337	1426	1731	505
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	99			97			96	94	95	90	94	99
cM capacity (veh/h)	686			913			119	83	656	83	83	508

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	334	334	520	498	42	18
Volume Left	5	0	30	0	5	8
Volume Right	0	5	0	8	32	5
cSH	686	1700	913	1700	278	108
Volume to Capacity	0.01	0.20	0.03	0.29	0.15	0.17
Queue Length 95th (m)	0.2	0.0	0.8	0.0	4.2	4.6
Control Delay (s)	0.2	0.0	0.9	0.0	20.3	44.9
Lane LOS	A		A		C	E
Approach Delay (s)	0.1		0.5		20.3	44.9
Approach LOS					C	E

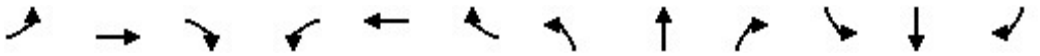
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	553	5	5	766	200	5	5	5	40	5	254
Future Volume (Veh/h)	107	553	5	5	766	200	5	5	5	40	5	254
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	110	570	5	5	790	206	5	5	5	41	5	262
Pedestrians					1			3			14	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1010			578			1465	1816	292	1430	1715	512
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1010			578			1465	1816	292	1430	1715	512
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.6	6.5	6.9
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 %	84			99			86	92	99	45	93	48
cM capacity (veh/h)	674			989			35	63	703	75	73	501

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	110	380	195	400	601	15	46	262
Volume Left	110	0	0	5	0	5	41	0
Volume Right	0	0	5	0	206	5	0	262
cSH	674	1700	1700	989	1700	65	75	501
Volume to Capacity	0.16	0.22	0.11	0.01	0.35	0.23	0.62	0.52
Queue Length 95th (m)	4.6	0.0	0.0	0.1	0.0	6.3	21.8	23.9
Control Delay (s)	11.4	0.0	0.0	0.2	0.0	75.7	111.1	19.8
Lane LOS	B			A		F	F	C
Approach Delay (s)	1.8			0.1		75.7	33.4	
Approach LOS						F	D	

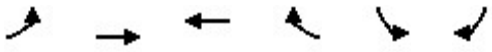
Intersection Summary				
Average Delay	6.3			
Intersection Capacity Utilization	59.1%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	354	28	22	238	8	13	24	33	10	44	53
Future Volume (Veh/h)	39	354	28	22	238	8	13	24	33	10	44	53
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	40	365	29	23	245	8	13	25	34	10	45	55
Pedestrians		5						6			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	259			400			843	770	386	807	781	260
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	259			400			843	770	386	807	781	260
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 %	97			98			94	92	95	96	85	93
cM capacity (veh/h)	1299			1153			221	311	659	254	306	767

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	434	276	72	110
Volume Left	40	23	13	10
Volume Right	29	8	34	55
cSH	1299	1153	377	426
Volume to Capacity	0.03	0.02	0.19	0.26
Queue Length 95th (m)	0.8	0.5	5.6	8.1
Control Delay (s)	1.0	0.9	16.8	16.4
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	0.9	16.8	16.4
Approach LOS			C	C

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	106	296	394	5	5	124
Future Volume (Veh/h)	106	296	394	5	5	124
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	114	318	424	5	5	133
Pedestrians		14				
Lane Width (m)		3.6				
Walking Speed (m/s)		1.2				
Percent Blockage		1				
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	429				972	440
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	429				972	440
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				98	78
cM capacity (veh/h)	1130				252	610

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	432	429	138
Volume Left	114	0	5
Volume Right	0	5	133
cSH	1130	1700	580
Volume to Capacity	0.10	0.25	0.24
Queue Length 95th (m)	2.7	0.0	7.4
Control Delay (s)	3.0	0.0	13.1
Lane LOS	A		B
Approach Delay (s)	3.0	0.0	13.1
Approach LOS			B

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		



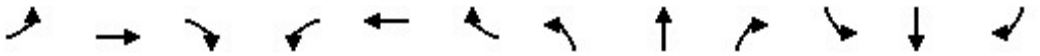
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	6	373	314	272	305	18
v/c Ratio	0.02	0.69	0.56	0.25	0.65	0.06
Control Delay	13.0	21.8	9.5	5.6	13.1	13.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	21.8	9.5	5.6	13.1	13.5
Queue Length 50th (m)	0.4	24.4	9.7	7.9	6.3	0.9
Queue Length 95th (m)	2.5	54.1	27.4	22.9	22.0	4.6
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	442	713	588	1319	744	626
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.52	0.53	0.21	0.41	0.03

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	240	77	267	218	14	65	7	188	5	5	5
Future Volume (vph)	5	240	77	267	218	14	65	7	188	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99			1.00	
Frt	1.00	0.96		1.00	0.99			0.90			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1754	1725		1755	1820			1581			1628	
Flt Permitted	0.59	1.00		0.30	1.00			0.91			0.89	
Satd. Flow (perm)	1093	1725		556	1820			1455			1466	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	6	282	91	314	256	16	76	8	221	6	6	6
RTOR Reduction (vph)	0	19	0	0	3	0	0	176	0	0	5	0
Lane Group Flow (vph)	6	354	0	314	269	0	0	129	0	0	13	0
Confl. Peds. (#/hr)	10		52	52		10	17		5	5		17
Heavy Vehicles (%)	2%	2%	10%	2%	3%	8%	12%	2%	2%	2%	20%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	14.1	14.1		27.4	27.4			9.2			9.2	
Effective Green, g (s)	14.1	14.1		27.4	27.4			9.2			9.2	
Actuated g/C Ratio	0.31	0.31		0.60	0.60			0.20			0.20	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	337	533		565	1093			293			295	
v/s Ratio Prot		c0.21		c0.11	0.15							
v/s Ratio Perm	0.01			0.23				c0.09			0.01	
v/c Ratio	0.02	0.66		0.56	0.25			0.44			0.04	
Uniform Delay, d1	10.9	13.7		5.5	4.3			15.9			14.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	3.1		1.2	0.1			1.1			0.1	
Delay (s)	11.0	16.8		6.7	4.4			17.0			14.7	
Level of Service	B	B		A	A			B			B	
Approach Delay (s)		16.7			5.6			17.0			14.7	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	45.6	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

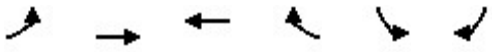
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	89	13	9	309	13	25	70	17	7	74	56
Future Volume (Veh/h)	11	89	13	9	309	13	25	70	17	7	74	56
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	13	105	15	11	364	15	29	82	20	8	87	66
Pedestrians		44									29	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		4									2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	408			120			686	568	112	622	568	444
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	408			120			686	568	112	622	568	444
tC, single (s)	4.2			4.2			7.1	6.5	6.3	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.5	4.0	3.4	3.7	4.0	3.3
p0 queue free %	99			99			88	80	98	97	79	89
cM capacity (veh/h)	1082			1402			250	412	930	296	413	577

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	133	390	131	161
Volume Left	13	11	29	8
Volume Right	15	15	20	66
cSH	1082	1402	390	458
Volume to Capacity	0.01	0.01	0.34	0.35
Queue Length 95th (m)	0.3	0.2	11.6	12.5
Control Delay (s)	0.9	0.3	18.9	17.1
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	0.3	18.9	17.1
Approach LOS			C	C

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	135	385	337	5	5	172
Future Volume (Veh/h)	135	385	337	5	5	172
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	139	397	347	5	5	177
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	352				1024	350
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	352				1024	350
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	88				98	74
cM capacity (veh/h)	1207				231	694

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	536	352	182
Volume Left	139	0	5
Volume Right	0	5	177
cSH	1207	1700	658
Volume to Capacity	0.12	0.21	0.28
Queue Length 95th (m)	3.1	0.0	9.0
Control Delay (s)	3.1	0.0	12.6
Lane LOS	A		B
Approach Delay (s)	3.1	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		



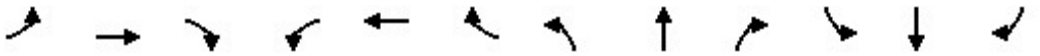
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	5	190	263	261	465	39
v/c Ratio	0.02	0.39	0.51	0.30	0.67	0.12
Control Delay	12.4	13.1	10.4	7.0	8.0	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	13.1	10.4	7.0	8.0	9.8
Queue Length 50th (m)	0.2	7.4	6.9	6.5	2.7	1.3
Queue Length 95th (m)	2.2	25.2	27.0	25.4	20.0	6.5
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	623	1012	518	1459	1060	738
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.19	0.51	0.18	0.44	0.05

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	133	49	252	229	21	46	8	393	17	10	11
Future Volume (vph)	5	133	49	252	229	21	46	8	393	17	10	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.88			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1766	1776		1751	1836			1602			1738	
Flt Permitted	0.60	1.00		0.43	1.00			0.96			0.72	
Satd. Flow (perm)	1112	1776		784	1836			1546			1280	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	139	51	262	239	22	48	8	409	18	10	11
RTOR Reduction (vph)	0	27	0	0	6	0	0	306	0	0	8	0
Lane Group Flow (vph)	5	163	0	263	255	0	0	159	0	0	31	0
Confl. Peds. (#/hr)	3		4	4		3	7		1	1		7
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	9.0	9.0		17.3	17.3			8.8			8.8	
Effective Green, g (s)	9.0	9.0		17.3	17.3			8.8			8.8	
Actuated g/C Ratio	0.26	0.26		0.49	0.49			0.25			0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	285	455		491	904			387			320	
v/s Ratio Prot		0.09		c0.06	0.14							
v/s Ratio Perm	0.00			c0.21				c0.10			0.02	
v/c Ratio	0.02	0.36		0.54	0.28			0.41			0.10	
Uniform Delay, d1	9.7	10.7		5.7	5.2			11.0			10.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.5		1.1	0.2			0.7			0.1	
Delay (s)	9.8	11.2		6.8	5.4			11.7			10.2	
Level of Service	A	B		A	A			B			B	
Approach Delay (s)		11.1			6.1			11.7			10.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	35.1	Sum of lost time (s)	13.5
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		

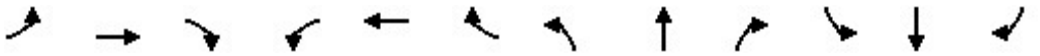
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	206	14	7	184	5	24	86	25	23	59	44
Future Volume (Veh/h)	33	206	14	7	184	5	24	86	25	23	59	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	35	219	15	7	196	5	26	91	27	24	63	47
Pedestrians		10			1						7	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	208			234			598	518	228	590	524	216
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	208			234			598	518	228	590	524	216
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 %	97			99			92	80	97	93	86	94
cM capacity (veh/h)	1355			1333			335	445	811	330	442	813

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	269	208	144	134
Volume Left	35	7	26	24
Volume Right	15	5	27	47
cSH	1355	1333	456	491
Volume to Capacity	0.03	0.01	0.32	0.27
Queue Length 95th (m)	0.6	0.1	10.7	8.8
Control Delay (s)	1.2	0.3	16.5	15.1
Lane LOS	A	A	C	C
Approach Delay (s)	1.2	0.3	16.5	15.1
Approach LOS			C	C

Intersection Summary			
Average Delay	6.3		
Intersection Capacity Utilization	43.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	19	20	35	47	40	34	357	38	38	371	9
Future Volume (Veh/h)	8	19	20	35	47	40	34	357	38	38	371	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	8	20	21	36	48	41	35	368	39	39	382	9
Pedestrians		5			4			18				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			0			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	992	950	410	975	936	392	396			411		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	992	950	410	975	936	392	396			411		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	95	92	97	81	81	94	97			97		
cM capacity (veh/h)	169	241	630	194	246	653	1158			1123		

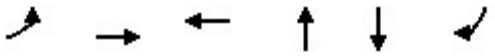
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	49	125	442	430
Volume Left	8	36	35	39
Volume Right	21	41	39	9
cSH	300	282	1158	1123
Volume to Capacity	0.16	0.44	0.03	0.03
Queue Length 95th (m)	4.6	17.2	0.7	0.9
Control Delay (s)	19.3	27.5	1.0	1.1
Lane LOS	C	D	A	A
Approach Delay (s)	19.3	27.5	1.0	1.1
Approach LOS	C	D		

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	260	5	5	600	91	5	5	5	33	5	109
Future Volume (Veh/h)	117	260	5	5	600	91	5	5	5	33	5	109
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	127	283	5	5	652	99	5	5	5	36	5	118
Pedestrians		5						8			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	757			296			891	1314	152	1120	1268	386
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	757			296			891	1314	152	1120	1268	386
tC, single (s)	4.2			4.1			7.5	6.5	7.3	7.6	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.6	4.0	3.3
p0 queue free %	85			100			97	96	99	72	96	81
cM capacity (veh/h)	839			1254			161	131	808	130	140	606

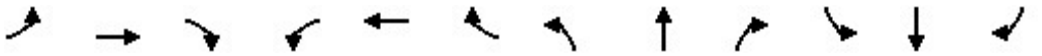
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	127	189	99	331	425	15	159
Volume Left	127	0	0	5	0	5	36
Volume Right	0	0	5	0	99	5	118
cSH	839	1700	1700	1254	1700	199	509
Volume to Capacity	0.15	0.11	0.06	0.00	0.25	0.08	0.31
Queue Length 95th (m)	4.3	0.0	0.0	0.1	0.0	1.9	10.6
Control Delay (s)	10.1	0.0	0.0	0.2	0.0	24.6	20.6
Lane LOS	B			A		C	C
Approach Delay (s)	3.1			0.1		24.6	20.6
Approach LOS						C	C

Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	44.5%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	127	288	756	15	41	118
v/c Ratio	0.30	0.14	0.37	0.05	0.15	0.29
Control Delay	7.3	4.2	4.8	10.0	12.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	4.2	4.8	10.0	12.8	5.5
Queue Length 50th (m)	3.2	3.4	10.0	0.4	1.8	0.0
Queue Length 95th (m)	11.8	7.8	20.2	3.7	7.8	8.6
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	474	2280	2297	844	756	941
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.13	0.33	0.02	0.05	0.13

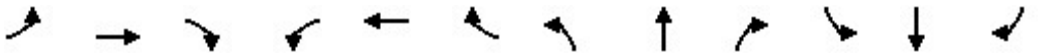
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	260	5	5	600	91	5	5	5	33	5	109
Future Volume (vph)	117	260	5	5	600	91	5	5	5	33	5	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.96	1.00
Satd. Flow (prot)	1749	3231			3399			1651			1711	1560
Flt Permitted	0.36	1.00			0.95			0.88			0.74	1.00
Satd. Flow (perm)	672	3231			3241			1472			1324	1560
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)	127	283	5	5	652	99	5	5	5	36	5	118
RTOR Reduction (vph)	0	2	0	0	18	0	0	4	0	0	0	100
Lane Group Flow (vph)	127	286	0	0	738	0	0	11	0	0	41	18
Confl. Peds. (#/hr)	6		8	8		6	5					5
Heavy Vehicles (%)	3%	11%	33%	2%	4%	2%	2%	2%	20%	7%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	19.8	19.8			19.8			5.3			5.3	5.3
Effective Green, g (s)	19.8	19.8			19.8			5.3			5.3	5.3
Actuated g/C Ratio	0.58	0.58			0.58			0.16			0.16	0.16
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	390	1876			1881			228			205	242
v/s Ratio Prot		0.09										
v/s Ratio Perm	0.19				c0.23			0.01			c0.03	0.01
v/c Ratio	0.33	0.15			0.39			0.05			0.20	0.08
Uniform Delay, d1	3.7	3.3			3.9			12.3			12.6	12.3
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	0.5	0.0			0.1			0.1			0.5	0.1
Delay (s)	4.2	3.3			4.0			12.3			13.0	12.4
Level of Service	A	A			A			B			B	B
Approach Delay (s)		3.6			4.0			12.3			12.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	34.1	Sum of lost time (s)	9.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	24	31	33	28	41	17	373	51	58	398	12
Future Volume (Veh/h)	7	24	31	33	28	41	17	373	51	58	398	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	26	33	35	30	44	18	397	54	62	423	13
Pedestrians					2			6				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			1				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1072	1042	436	1068	1022	426	436			453		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1072	1042	436	1068	1022	426	436			453		
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 %	96	88	95	78	86	93	98			94		
cM capacity (veh/h)	156	213	613	161	219	621	1124			1106		

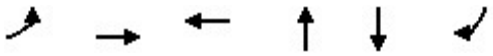
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	66	109	469	498
Volume Left	7	35	18	62
Volume Right	33	44	54	13
cSH	299	256	1124	1106
Volume to Capacity	0.22	0.43	0.02	0.06
Queue Length 95th (m)	6.6	16.0	0.4	1.4
Control Delay (s)	20.4	29.1	0.5	1.6
Lane LOS	C	D	A	A
Approach Delay (s)	20.4	29.1	0.5	1.6
Approach LOS	C	D		

Intersection Summary				
Average Delay	4.9			
Intersection Capacity Utilization	65.1%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	555	5	5	504	100	5	5	5	88	5	294
Future Volume (Veh/h)	193	555	5	5	504	100	5	5	5	88	5	294
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	195	561	5	5	509	101	5	5	5	89	5	297
Pedestrians		1						3			1	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			0	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	611			569			1224	1578	286	1248	1530	307
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	611			569			1224	1578	286	1248	1530	307
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	80			99			92	94	99	14	95	57
cM capacity (veh/h)	963			997			62	86	709	103	92	688

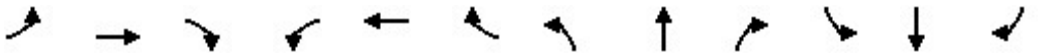
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	195	374	192	260	356	15	391
Volume Left	195	0	0	5	0	5	89
Volume Right	0	0	5	0	101	5	297
cSH	963	1700	1700	997	1700	102	345
Volume to Capacity	0.20	0.22	0.11	0.01	0.21	0.15	1.13
Queue Length 95th (m)	6.0	0.0	0.0	0.1	0.0	3.9	122.7
Control Delay (s)	9.7	0.0	0.0	0.2	0.0	46.1	124.6
Lane LOS	A			A		E	F
Approach Delay (s)	2.5			0.1		46.1	124.6
Approach LOS						E	F

Intersection Summary				
Average Delay	28.8			
Intersection Capacity Utilization	54.6%	ICU Level of Service		A
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	195	566	615	15	94	297
v/c Ratio	0.51	0.33	0.38	0.04	0.30	0.51
Control Delay	11.8	5.9	5.7	10.7	14.7	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.8	5.9	5.7	10.7	14.7	6.0
Queue Length 50th (m)	6.0	8.2	8.2	0.4	3.7	0.3
Queue Length 95th (m)	22.0	18.7	19.2	4.1	16.7	15.4
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	637	2889	2683	904	762	1006
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.20	0.23	0.02	0.12	0.30

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	555	5	5	504	100	5	5	5	88	5	294
Future Volume (vph)	193	555	5	5	504	100	5	5	5	88	5	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1769	3534			3439			1749			1779	1563
Flt Permitted	0.42	1.00			0.95			0.90			0.73	1.00
Satd. Flow (perm)	780	3534			3271			1601			1353	1563
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	195	561	5	5	509	101	5	5	5	89	5	297
RTOR Reduction (vph)	0	1	0	0	30	0	0	4	0	0	0	220
Lane Group Flow (vph)	195	565	0	0	585	0	0	11	0	0	94	77
Confl. Peds. (#/hr)	1		3	3		1	1					1
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	16.9	16.9			16.9			8.1			8.1	8.1
Effective Green, g (s)	16.9	16.9			16.9			8.1			8.1	8.1
Actuated g/C Ratio	0.50	0.50			0.50			0.24			0.24	0.24
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	387	1756			1625			381			322	372
v/s Ratio Prot		0.16										
v/s Ratio Perm	c0.25				0.18			0.01			c0.07	0.05
v/c Ratio	0.50	0.32			0.36			0.03			0.29	0.21
Uniform Delay, d1	5.7	5.1			5.2			9.9			10.6	10.4
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	1.0	0.1			0.1			0.0			0.5	0.3
Delay (s)	6.8	5.2			5.4			10.0			11.1	10.7
Level of Service	A	A			A			A			B	B
Approach Delay (s)		5.6			5.4			10.0			10.8	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	34.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	155	835	0	0	608
Future Volume (Veh/h)	0	155	835	0	0	608
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	174	938	0	0	683
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.71					
vC, conflicting volume	1621	938			938	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1672	938			938	
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	46			100	
cM capacity (veh/h)	74	321			730	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	174	938	683
Volume Left	0	0	0
Volume Right	174	0	0
cSH	321	1700	1700
Volume to Capacity	0.54	0.55	0.40
Queue Length 95th (m)	24.4	0.0	0.0
Control Delay (s)	28.8	0.0	0.0
Lane LOS	D		
Approach Delay (s)	28.8	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	137	33	1098	953
v/c Ratio	0.21	0.05	1.40	0.75
Control Delay	7.5	6.3	210.6	16.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.5	6.3	210.6	16.6
Queue Length 50th (m)	5.1	0.8	~87.4	36.6
Queue Length 95th (m)	13.8	4.8	#121.3	55.9
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	646	670	782	1277
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.21	0.05	1.40	0.75

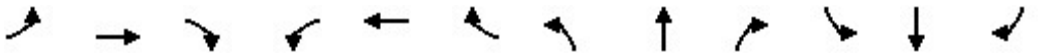
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	16	48	5	7	17	132	834	12	12	567	270
Future Volume (vph)	58	16	48	5	7	17	132	834	12	12	567	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.95	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1617			1583			3422			3279	
Flt Permitted		0.87			0.96			0.59			0.93	
Satd. Flow (perm)		1437			1538			2027			3060	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	65	18	54	6	8	19	148	937	13	13	637	303
RTOR Reduction (vph)	0	31	0	0	11	0	0	1	0	0	98	0
Lane Group Flow (vph)	0	106	0	0	22	0	0	1097	0	0	855	0
Confl. Peds. (#/hr)	8		23	23		8	2		3	3		2
Heavy Vehicles (%)	4%	7%	7%	2%	2%	13%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			21.6			21.6	
Effective Green, g (s)		24.0			24.0			21.6			21.6	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		615			659			781			1180	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.01			c0.54			0.28	
v/c Ratio		0.17			0.03			1.40			0.72	
Uniform Delay, d1		9.9			9.3			17.2			14.7	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.0			189.6			3.9	
Delay (s)		10.0			9.3			206.8			18.6	
Level of Service		B			A			F			B	
Approach Delay (s)		10.0			9.3			206.8			18.6	
Approach LOS		B			A			F			B	

Intersection Summary			
HCM 2000 Control Delay	111.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	8	7	5	11	5	318	43	15	251	5
Future Volume (Veh/h)	5	5	8	7	5	11	5	318	43	15	251	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	6	9	8	6	13	6	370	50	17	292	6
Pedestrians		24			28			20			43	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			2			2			4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	819	813	339	796	791	466	322			448		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	819	813	339	796	791	466	322			448		
tC, single (s)	7.9	6.5	7.2	7.1	6.5	6.2	4.7			4.2		
tC, 2 stage (s)												
tF (s)	4.2	4.0	4.2	3.5	4.0	3.3	2.7			2.3		
p0 queue free %	97	98	98	97	98	98	99			98		
cM capacity (veh/h)	190	293	508	269	301	562	954			1061		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	21	27	426	315
Volume Left	6	8	6	17
Volume Right	9	13	50	6
cSH	301	371	954	1061
Volume to Capacity	0.07	0.07	0.01	0.02
Queue Length 95th (m)	1.8	1.9	0.2	0.4
Control Delay (s)	17.9	15.5	0.2	0.6
Lane LOS	C	C	A	A
Approach Delay (s)	17.9	15.5	0.2	0.6
Approach LOS	C	C		

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	40.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	21	15	9	31	21	435	0	0	252	8
Future Volume (Veh/h)	8	0	21	15	9	31	21	435	0	0	252	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	22	16	9	32	22	453	0	0	262	8
Pedestrians		23			12			2			3	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	826	798	291	799	802	468	293			465		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	826	798	291	799	802	468	293			465		
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 %	97	100	97	94	97	95	98			100		
cM capacity (veh/h)	254	304	733	281	303	584	1228			1085		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	30	57	475	270
Volume Left	8	16	22	0
Volume Right	22	32	0	8
cSH	488	403	1228	1700
Volume to Capacity	0.06	0.14	0.02	0.16
Queue Length 95th (m)	1.6	3.9	0.4	0.0
Control Delay (s)	12.9	15.4	0.6	0.0
Lane LOS	B	C	A	
Approach Delay (s)	12.9	15.4	0.6	0.0
Approach LOS	B	C		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	69	809	0	0	954
Future Volume (Veh/h)	0	69	809	0	0	954
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	78	909	0	0	1072
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.69					
vC, conflicting volume	1981	909			909	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2195	909			909	
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	77			100	
cM capacity (veh/h)	34	333			749	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	78	909	1072
Volume Left	0	0	0
Volume Right	78	0	0
cSH	333	1700	1700
Volume to Capacity	0.23	0.53	0.63
Queue Length 95th (m)	7.1	0.0	0.0
Control Delay (s)	19.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	19.1	0.0	0.0
Approach LOS	C		

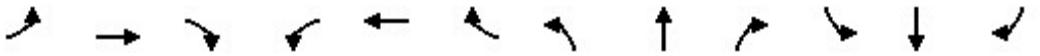
Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	204	24	854	1180
v/c Ratio	0.47	0.05	0.53	0.61
Control Delay	24.9	14.3	11.8	12.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.9	14.3	11.8	12.0
Queue Length 50th (m)	23.4	1.2	41.3	57.3
Queue Length 95th (m)	44.2	6.9	56.9	76.8
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	432	451	1603	1919
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	0.05	0.53	0.61

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	29	71	5	5	14	57	770	10	16	886	255
Future Volume (vph)	100	29	71	5	5	14	57	770	10	16	886	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.97	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1678			1615			3488			3403	
Flt Permitted		0.83			0.95			0.78			0.94	
Satd. Flow (perm)		1432			1546			2716			3197	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	102	30	72	5	5	14	58	786	10	16	904	260
RTOR Reduction (vph)	0	24	0	0	10	0	0	1	0	0	31	0
Lane Group Flow (vph)	0	180	0	0	14	0	0	853	0	0	1149	0
Confl. Peds. (#/hr)	13		13	13		13	3		9	9		3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	3%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			49.6			49.6	
Effective Green, g (s)		24.0			24.0			49.6			49.6	
Actuated g/C Ratio		0.29			0.29			0.59			0.59	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		409			441			1603			1887	
v/s Ratio Prot												
v/s Ratio Perm		c0.13			0.01			0.31			c0.36	
v/c Ratio		0.44			0.03			0.53			0.61	
Uniform Delay, d1		24.5			21.6			10.3			11.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.9			0.0			1.3			1.5	
Delay (s)		25.4			21.7			11.5			12.5	
Level of Service		C			C			B			B	
Approach Delay (s)		25.4			21.7			11.5			12.5	
Approach LOS		C			C			B			B	

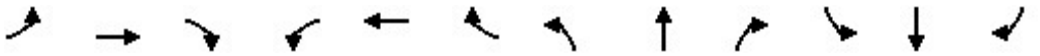
Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	10	5	31	5	282	21	15	358	5
Future Volume (Veh/h)	5	5	5	10	5	31	5	282	21	15	358	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	6	6	11	6	35	6	317	24	17	402	6
Pedestrians		31			24			22			24	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	873	847	458	835	838	377	439			365		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	873	847	458	835	838	377	439			365		
tC, single (s)	7.9	6.7	7.0	7.1	6.5	6.2	4.9			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.2	4.0	3.5	4.0	3.3	2.9			2.2		
p0 queue free %	96	98	99	96	98	95	99			99		
cM capacity (veh/h)	169	261	449	254	282	643	785			1170		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	18	52	347	425
Volume Left	6	11	6	17
Volume Right	6	35	24	6
cSH	251	437	785	1170
Volume to Capacity	0.07	0.12	0.01	0.01
Queue Length 95th (m)	1.8	3.2	0.2	0.4
Control Delay (s)	20.5	14.3	0.3	0.5
Lane LOS	C	B	A	A
Approach Delay (s)	20.5	14.3	0.3	0.5
Approach LOS	C	B		

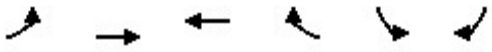
Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	43.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	56	34	13	27	17	354	0	0	476	15
Future Volume (Veh/h)	16	0	56	34	13	27	17	354	0	0	476	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	17	0	59	36	14	28	18	373	0	0	501	16
Pedestrians		13			5			4			4	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	970	936	526	986	944	382	530			378		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	970	936	526	986	944	382	530			378		
tC, single (s)	7.2	6.9	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	100	89	82	94	96	98			100		
cM capacity (veh/h)	201	222	544	196	254	656	1026			1176		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	76	78	391	517
Volume Left	17	36	18	0
Volume Right	59	28	0	16
cSH	394	277	1026	1700
Volume to Capacity	0.19	0.28	0.02	0.30
Queue Length 95th (m)	5.6	9.0	0.4	0.0
Control Delay (s)	16.3	23.0	0.6	0.0
Lane LOS	C	C	A	
Approach Delay (s)	16.3	23.0	0.6	0.0
Approach LOS	C	C		

Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	48.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	836	561	45	16	32
Future Volume (Veh/h)	37	836	561	45	16	32
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	40	899	603	48	17	34
Pedestrians		17	1		13	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	664				1170	356
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	664				1170	356
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	95				90	94
cM capacity (veh/h)	885				168	611

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	40	450	450	402	249	51
Volume Left	40	0	0	0	0	17
Volume Right	0	0	0	0	48	34
cSH	885	1700	1700	1700	1700	326
Volume to Capacity	0.05	0.26	0.26	0.24	0.15	0.16
Queue Length 95th (m)	1.1	0.0	0.0	0.0	0.0	4.4
Control Delay (s)	9.3	0.0	0.0	0.0	0.0	18.1
Lane LOS	A					C
Approach Delay (s)	0.4			0.0		18.1
Approach LOS						C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	735	60	93	504	36	141
Future Volume (Veh/h)	735	60	93	504	36	141
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	782	64	99	536	38	150
Pedestrians				1	4	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked			0.97		0.97	0.97
vC, conflicting volume			850		1284	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			779		1227	343
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		73	76
cM capacity (veh/h)			792		143	626

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	521	325	99	268	268	38	150
Volume Left	0	0	99	0	0	38	0
Volume Right	0	64	0	0	0	0	150
cSH	1700	1700	792	1700	1700	143	626
Volume to Capacity	0.31	0.19	0.13	0.16	0.16	0.27	0.24
Queue Length 95th (m)	0.0	0.0	3.4	0.0	0.0	8.1	7.4
Control Delay (s)	0.0	0.0	10.2	0.0	0.0	39.1	12.5
Lane LOS			B			E	B
Approach Delay (s)	0.0		1.6			17.9	
Approach LOS						C	

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	383	692	5	625	168	166
v/c Ratio	0.75	0.35	0.02	0.62	0.40	0.34
Control Delay	21.0	7.6	16.4	19.4	20.5	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	7.6	16.4	19.4	20.5	5.7
Queue Length 50th (m)	16.1	14.9	0.4	25.0	14.2	0.4
Queue Length 95th (m)	#76.1	41.3	2.9	54.1	30.0	11.8
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	508	2233	265	1232	813	793
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.31	0.02	0.51	0.21	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	368	664	0	5	494	106	0	0	0	161	5	155
Future Volume (vph)	368	664	0	5	494	106	0	0	0	161	5	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1769	3471		1763	3288					1770	1537	
Flt Permitted	0.25	1.00		0.39	1.00					0.95	1.00	
Satd. Flow (perm)	467	3471		721	3288					1770	1537	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	383	692	0	5	515	110	0	0	0	168	5	161
RTOR Reduction (vph)	0	0	0	0	25	0	0	0	0	0	122	0
Lane Group Flow (vph)	383	692	0	5	600	0	0	0	0	168	44	0
Confl. Peds. (#/hr)	6		7	7		6	6					6
Confl. Bikes (#/hr)			5									1
Heavy Vehicles (%)	2%	4%	2%	2%	6%	8%	2%	2%	2%	2%	2%	4%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	31.9	31.9		16.7	16.7					13.2	13.2	
Effective Green, g (s)	31.9	31.9		16.7	16.7					13.2	13.2	
Actuated g/C Ratio	0.58	0.58		0.30	0.30					0.24	0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	511	2009		218	996					424	368	
v/s Ratio Prot	c0.14	0.20			0.18						0.03	
v/s Ratio Perm	c0.30			0.01						c0.09		
v/c Ratio	0.75	0.34		0.02	0.60					0.40	0.12	
Uniform Delay, d1	7.6	6.1		13.5	16.4					17.6	16.4	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	6.2	0.1		0.1	1.1					0.7	0.2	
Delay (s)	13.7	6.2		13.5	17.5					18.3	16.6	
Level of Service	B	A		B	B					B	B	
Approach Delay (s)		8.9			17.4			0.0			17.5	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	15.0
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	383	692	5	625	168	166
v/c Ratio	0.63	0.32	0.02	0.66	0.44	0.36
Control Delay	13.3	6.7	19.6	23.7	25.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	6.7	19.6	23.7	25.8	6.8
Queue Length 50th (m)	17.0	15.7	0.5	32.8	18.2	0.5
Queue Length 95th (m)	59.1	40.2	3.3	62.7	36.3	13.7
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	660	2541	258	1197	720	719
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.27	0.02	0.52	0.23	0.23

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	368	664	0	5	494	106	0	0	0	161	5	155
Future Volume (vph)	368	664	0	5	494	106	0	0	0	161	5	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1769	3471		1762	3288					1770	1536	
Flt Permitted	0.23	1.00		0.39	1.00					0.95	1.00	
Satd. Flow (perm)	434	3471		721	3288					1770	1536	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	383	692	0	5	515	110	0	0	0	168	5	161
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	126	0
Lane Group Flow (vph)	383	692	0	5	603	0	0	0	0	168	40	0
Confl. Peds. (#/hr)	6		7	7		6	6					6
Confl. Bikes (#/hr)			5									1
Heavy Vehicles (%)	2%	4%	2%	2%	6%	8%	2%	2%	2%	2%	2%	4%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	39.0	39.0		17.9	17.9					13.7	13.7	
Effective Green, g (s)	39.0	39.0		17.9	17.9					13.7	13.7	
Actuated g/C Ratio	0.62	0.62		0.29	0.29					0.22	0.22	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	612	2158		205	938					386	335	
v/s Ratio Prot	c0.16	0.20			0.18						0.03	
v/s Ratio Perm	c0.23			0.01						c0.09		
v/c Ratio	0.63	0.32		0.02	0.64					0.44	0.12	
Uniform Delay, d1	7.3	5.6		16.1	19.6					21.2	19.7	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	2.1	0.1		0.1	1.6					0.9	0.2	
Delay (s)	9.4	5.7		16.2	21.2					22.1	19.9	
Level of Service	A	A		B	C					C	B	
Approach Delay (s)		7.0			21.1			0.0			21.0	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	62.7	Sum of lost time (s)	15.0
Intersection Capacity Utilization	62.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	388	10	2	212	17	12
Future Volume (Veh/h)	388	10	2	212	17	12
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	456	12	2	249	20	14
Pedestrians	3			9	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			473		723	476
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			473		723	476
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		95	98
cM capacity (veh/h)			1084		391	583

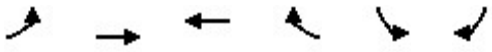
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	468	251	34
Volume Left	0	2	20
Volume Right	12	0	14
cSH	1700	1084	452
Volume to Capacity	0.28	0.00	0.08
Queue Length 95th (m)	0.0	0.0	1.9
Control Delay (s)	0.0	0.1	13.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.1	13.6
Approach LOS			B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	33.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	27	5	5	22	21	14	76	5	8	38	28
Future Volume (Veh/h)	34	27	5	5	22	21	14	76	5	8	38	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	36	29	5	5	23	22	15	81	5	9	40	30
Pedestrians		8			4			9			26	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	254	201	72	219	214	114	78			90		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	254	201	72	219	214	114	78			90		
tC, single (s)	7.1	6.6	6.2	7.1	6.6	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.1	3.3	2.2			2.3		
p0 queue free %	94	96	99	99	96	98	99			99		
cM capacity (veh/h)	631	667	976	688	653	916	1510			1428		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	50	101	79
Volume Left	36	5	15	9
Volume Right	5	22	5	30
cSH	662	752	1510	1428
Volume to Capacity	0.11	0.07	0.01	0.01
Queue Length 95th (m)	2.8	1.7	0.2	0.2
Control Delay (s)	11.1	10.1	1.2	0.9
Lane LOS	B	B	A	A
Approach Delay (s)	11.1	10.1	1.2	0.9
Approach LOS	B	B		

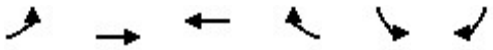
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	368	209	20	31	65
Future Volume (Veh/h)	99	368	209	20	31	65
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	116	433	246	24	36	76
Pedestrians		3	9		4	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	1		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	274				936	265
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	274				936	265
tC, single (s)	4.1				6.7	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.7	3.4
p0 queue free %	91				85	90
cM capacity (veh/h)	1273				240	757

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	549	270	112
Volume Left	116	0	36
Volume Right	0	24	76
cSH	1273	1700	448
Volume to Capacity	0.09	0.16	0.25
Queue Length 95th (m)	2.4	0.0	7.8
Control Delay (s)	2.5	0.0	15.7
Lane LOS	A		C
Approach Delay (s)	2.5	0.0	15.7
Approach LOS			C

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	28	664	862	63	14	40
Future Volume (Veh/h)	28	664	862	63	14	40
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	29	692	898	66	15	42
Pedestrians		10	1		8	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	972				1344	500
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	972				1344	500
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				89	92
cM capacity (veh/h)	700				136	509

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	29	346	346	599	365	57
Volume Left	29	0	0	0	0	15
Volume Right	0	0	0	0	66	42
cSH	700	1700	1700	1700	1700	296
Volume to Capacity	0.04	0.20	0.20	0.35	0.21	0.19
Queue Length 95th (m)	1.0	0.0	0.0	0.0	0.0	5.6
Control Delay (s)	10.4	0.0	0.0	0.0	0.0	20.1
Lane LOS	B					C
Approach Delay (s)	0.4			0.0		20.1
Approach LOS						C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	585	81	139	745	35	122
Future Volume (Veh/h)	585	81	139	745	35	122
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	591	82	140	753	35	123
Pedestrians				1	11	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked						
vC, conflicting volume			684		1300	348
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			684		1300	348
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			84		73	81
cM capacity (veh/h)			897		128	641

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	394	279	140	376	376	35	123
Volume Left	0	0	140	0	0	35	0
Volume Right	0	82	0	0	0	0	123
cSH	1700	1700	897	1700	1700	128	641
Volume to Capacity	0.23	0.16	0.16	0.22	0.22	0.27	0.19
Queue Length 95th (m)	0.0	0.0	4.4	0.0	0.0	8.3	5.6
Control Delay (s)	0.0	0.0	9.8	0.0	0.0	43.4	11.9
Lane LOS			A			E	B
Approach Delay (s)	0.0		1.5			18.9	
Approach LOS						C	

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	40.3%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	259	606	7	910	144	259
v/c Ratio	0.60	0.29	0.03	0.77	0.36	0.47
Control Delay	15.8	6.9	15.7	23.3	21.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	6.9	15.7	23.3	21.2	6.0
Queue Length 50th (m)	9.7	12.1	0.5	39.8	13.6	0.4
Queue Length 95th (m)	#49.7	35.4	3.5	#96.2	26.1	14.4
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	436	2186	277	1233	780	833
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.28	0.03	0.74	0.18	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

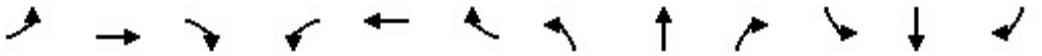
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	588	0	7	706	177	0	0	0	140	5	246
Future Volume (vph)	251	588	0	7	706	177	0	0	0	140	5	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1752	3539		1766	3415					1770	1567	
Flt Permitted	0.16	1.00		0.42	1.00					0.95	1.00	
Satd. Flow (perm)	302	3539		786	3415					1770	1567	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	259	606	0	7	728	182	0	0	0	144	5	254
RTOR Reduction (vph)	0	0	0	0	29	0	0	0	0	0	197	0
Lane Group Flow (vph)	259	606	0	7	881	0	0	0	0	144	62	0
Confl. Peds. (#/hr)	1		3	3		1	1					1
Confl. Bikes (#/hr)			1			5						1
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	34.3	34.3		19.4	19.4					12.9	12.9	
Effective Green, g (s)	34.3	34.3		19.4	19.4					12.9	12.9	
Actuated g/C Ratio	0.60	0.60		0.34	0.34					0.23	0.23	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	432	2122		266	1158					399	353	
v/s Ratio Prot	c0.10	0.17			c0.26						0.04	
v/s Ratio Perm	0.26			0.01						c0.08		
v/c Ratio	0.60	0.29		0.03	0.76					0.36	0.18	
Uniform Delay, d1	8.0	5.5		12.6	16.8					18.7	17.9	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	2.4	0.1		0.0	3.1					0.7	0.3	
Delay (s)	10.4	5.6		12.6	19.9					19.3	18.1	
Level of Service	B	A		B	B					B	B	
Approach Delay (s)		7.0			19.9			0.0			18.6	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	259	606	7	910	144	259
v/c Ratio	0.55	0.27	0.03	0.76	0.38	0.49
Control Delay	13.8	6.3	16.4	23.3	25.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	6.3	16.4	23.3	25.5	6.9
Queue Length 50th (m)	10.1	12.7	0.5	46.5	15.8	0.5
Queue Length 95th (m)	43.0	34.5	3.6	89.6	31.4	16.6
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	511	2610	334	1478	725	792
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.23	0.02	0.62	0.20	0.33

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	588	0	7	706	177	0	0	0	140	5	246
Future Volume (vph)	251	588	0	7	706	177	0	0	0	140	5	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1752	3539		1766	3415					1770	1567	
Flt Permitted	0.15	1.00		0.42	1.00					0.95	1.00	
Satd. Flow (perm)	276	3539		786	3415					1770	1567	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	259	606	0	7	728	182	0	0	0	144	5	254
RTOR Reduction (vph)	0	0	0	0	27	0	0	0	0	0	200	0
Lane Group Flow (vph)	259	606	0	7	883	0	0	0	0	144	59	0
Confl. Peds. (#/hr)	1		3	3		1	1					1
Confl. Bikes (#/hr)			1			5						1
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	39.2	39.2		21.7	21.7					13.3	13.3	
Effective Green, g (s)	39.2	39.2		21.7	21.7					13.3	13.3	
Actuated g/C Ratio	0.63	0.63		0.35	0.35					0.21	0.21	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	468	2219		272	1185					376	333	
v/s Ratio Prot	c0.11	0.17			c0.26						0.04	
v/s Ratio Perm	0.24			0.01						c0.08		
v/c Ratio	0.55	0.27		0.03	0.75					0.38	0.18	
Uniform Delay, d1	8.1	5.2		13.4	18.0					21.1	20.1	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	1.6	0.1		0.0	2.7					0.8	0.3	
Delay (s)	9.7	5.3		13.5	20.6					21.9	20.4	
Level of Service	A	A		B	C					C	C	
Approach Delay (s)		6.6			20.6			0.0			20.9	
Approach LOS		A			C			A			C	

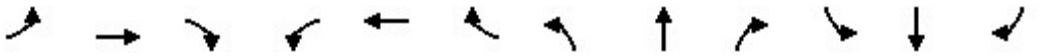
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	62.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	263	15	7	322	17	20
Future Volume (Veh/h)	263	15	7	322	17	20
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	289	16	8	354	19	22
Pedestrians	1			5	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			310		673	307
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			310		673	307
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		95	97
cM capacity (veh/h)			1245		417	727

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	305	362	41
Volume Left	0	8	19
Volume Right	16	0	22
cSH	1700	1245	541
Volume to Capacity	0.18	0.01	0.08
Queue Length 95th (m)	0.0	0.2	2.0
Control Delay (s)	0.0	0.2	12.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.2
Approach LOS			B

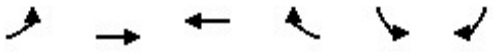
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	32	12	16	32	32	17	69	12	8	118	32
Future Volume (Veh/h)	41	32	12	16	32	32	17	69	12	8	118	32
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	45	35	13	17	35	35	18	75	13	9	128	35
Pedestrians		6			3			6			19	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	358	296	158	320	308	104	169			91		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	358	296	158	320	308	104	169			91		
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 %	91	94	99	97	94	96	99			99		
cM capacity (veh/h)	522	599	879	579	591	934	1401			1500		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	93	87	106	172
Volume Left	45	17	18	9
Volume Right	13	35	13	35
cSH	583	690	1401	1500
Volume to Capacity	0.16	0.13	0.01	0.01
Queue Length 95th (m)	4.5	3.4	0.3	0.1
Control Delay (s)	12.3	11.0	1.4	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	12.3	11.0	1.4	0.4
Approach LOS	B	B		

Intersection Summary				
Average Delay	5.1			
Intersection Capacity Utilization	28.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	43	255	308	32	23	118
Future Volume (Veh/h)	43	255	308	32	23	118
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	47	280	338	35	25	130
Pedestrians		1	5		1	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	374				736	358
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	374				736	358
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	96				93	81
cM capacity (veh/h)	1183				363	683

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	327	373	155
Volume Left	47	0	25
Volume Right	0	35	130
cSH	1183	1700	598
Volume to Capacity	0.04	0.22	0.26
Queue Length 95th (m)	1.0	0.0	8.2
Control Delay (s)	1.5	0.0	13.1
Lane LOS	A		B
Approach Delay (s)	1.5	0.0	13.1
Approach LOS			B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	10	5	5	11	20	475	5	5	248	39
Future Volume (Veh/h)	36	5	10	5	5	11	20	475	5	5	248	39
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	40	5	11	5	5	12	22	522	5	5	273	43
Pedestrians		3			4							
Lane Width (m)		3.6			3.6							
Walking Speed (m/s)		1.2			1.2							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	888	882	298	869	902	528	319			531		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	888	882	298	869	902	528	319			531		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	83	98	98	98	98	98	98			100		
cM capacity (veh/h)	239	277	719	258	270	548	1189			1033		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	56	22	22	527	5	316
Volume Left	40	5	22	0	5	0
Volume Right	11	12	0	5	0	43
cSH	279	368	1189	1700	1033	1700
Volume to Capacity	0.20	0.06	0.02	0.31	0.00	0.19
Queue Length 95th (m)	5.9	1.5	0.5	0.0	0.1	0.0
Control Delay (s)	21.1	15.4	8.1	0.0	8.5	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	21.1	15.4	0.3		0.1	
Approach LOS	C	C				

Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	39.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	5	33	5	7	5	137	433	5	5	178	67
Future Volume (Veh/h)	51	5	33	5	7	5	137	433	5	5	178	67
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	57	6	37	6	8	6	152	481	6	6	198	74
Pedestrians		2			6			5				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	804	1046	143	950	1080	250	274			493		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	804	1046	143	950	1080	250	274			493		
tC, single (s)	8.0	6.5	7.2	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	97	96	97	96	99	88			99		
cM capacity (veh/h)	208	198	840	180	189	747	1284			1061		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	100	20	152	321	166	6	132	140
Volume Left	57	6	152	0	0	6	0	0
Volume Right	37	6	0	0	6	0	0	74
cSH	287	239	1284	1700	1700	1061	1700	1700
Volume to Capacity	0.35	0.08	0.12	0.19	0.10	0.01	0.08	0.08
Queue Length 95th (m)	12.1	2.2	3.2	0.0	0.0	0.1	0.0	0.0
Control Delay (s)	24.1	21.4	8.2	0.0	0.0	8.4	0.0	0.0
Lane LOS	C	C	A			A		
Approach Delay (s)	24.1	21.4	1.9			0.2		
Approach LOS	C	C						

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	35.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	49	172	548	73	74	323
Future Volume (Veh/h)	49	172	548	73	74	323
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	187	596	79	80	351
Pedestrians	2					6
Lane Width (m)	3.6					3.6
Walking Speed (m/s)	1.2					1.2
Percent Blockage	0					1
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1148	644			677	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1148	644			677	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	73	60			91	
cM capacity (veh/h)	199	465			913	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	240	675	80	351
Volume Left	53	0	80	0
Volume Right	187	79	0	0
cSH	597	1700	913	1700
Volume to Capacity	0.40	0.40	0.09	0.21
Queue Length 95th (m)	15.5	0.0	2.3	0.0
Control Delay (s)	20.4	0.0	9.3	0.0
Lane LOS	C		A	
Approach Delay (s)	20.4	0.0	1.7	
Approach LOS	C			

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	5	36	5	5	12	23	363	5	8	409	13
Future Volume (Veh/h)	86	5	36	5	5	12	23	363	5	8	409	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
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 (vph)	93	5	39	5	5	13	25	395	5	9	445	14
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	932	921	453	952	926	398	460			400		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	932	921	453	952	926	398	460			400		
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 %	60	98	94	98	98	98	98			99		
cM capacity (veh/h)	233	262	604	216	261	652	1100			1159		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	137	23	25	400	9	459
Volume Left	93	5	25	0	9	0
Volume Right	39	13	0	5	0	14
cSH	283	369	1100	1700	1159	1700
Volume to Capacity	0.48	0.06	0.02	0.24	0.01	0.27
Queue Length 95th (m)	19.8	1.6	0.6	0.0	0.2	0.0
Control Delay (s)	29.0	15.4	8.3	0.0	8.1	0.0
Lane LOS	D	C	A		A	
Approach Delay (s)	29.0	15.4	0.5		0.2	
Approach LOS	D	C				

Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	42.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	203	7	5	8	73	266	5	15	368	50
Future Volume (Veh/h)	97	10	203	7	5	8	73	266	5	15	368	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	107	11	223	8	5	9	80	292	5	16	404	55
Pedestrians					2			3				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	781	922	232	922	948	150	459			299		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	781	922	232	922	948	150	459			299		
tC, single (s)	7.6	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 %	58	96	71	94	98	99	93			99		
cM capacity (veh/h)	256	245	768	144	238	868	1098			1257		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	341	22	80	195	102	16	269	190
Volume Left	107	8	80	0	0	16	0	0
Volume Right	223	9	0	0	5	0	0	55
cSH	453	253	1098	1700	1700	1257	1700	1700
Volume to Capacity	0.75	0.09	0.07	0.11	0.06	0.01	0.16	0.11
Queue Length 95th (m)	50.5	2.3	1.9	0.0	0.0	0.3	0.0	0.0
Control Delay (s)	33.5	20.6	8.5	0.0	0.0	7.9	0.0	0.0
Lane LOS	D	C	A			A		
Approach Delay (s)	33.5	20.6	1.8			0.3		
Approach LOS	D	C						

Intersection Summary				
Average Delay	10.4			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	36	154	534	89	201	722
Future Volume (Veh/h)	36	154	534	89	201	722
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	40	169	587	98	221	793
Pedestrians						2
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1871	638			685	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1871	638			685	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	34	64			76	
cM capacity (veh/h)	60	476			908	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	209	685	221	793
Volume Left	40	0	221	0
Volume Right	169	98	0	0
cSH	314	1700	908	1700
Volume to Capacity	0.66	0.40	0.24	0.47
Queue Length 95th (m)	35.6	0.0	7.6	0.0
Control Delay (s)	40.8	0.0	10.2	0.0
Lane LOS	E		B	
Approach Delay (s)	40.8	0.0	2.2	
Approach LOS	E			

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	345	7	19	276	5	53
Future Volume (Veh/h)	345	7	19	276	5	53
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	397	8	22	317	6	61
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			405		762	401
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			405		762	401
tC, single (s)			4.3		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.3
p0 queue free %			98		98	91
cM capacity (veh/h)			1072		365	645

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	405	339	67
Volume Left	0	22	6
Volume Right	8	0	61
cSH	1700	1072	603
Volume to Capacity	0.24	0.02	0.11
Queue Length 95th (m)	0.0	0.5	3.0
Control Delay (s)	0.0	0.7	11.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.7	11.7
Approach LOS			B

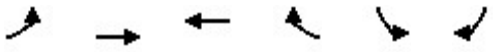
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	62	50	177	207	8
Future Volume (Veh/h)	9	62	50	177	207	8
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	73	59	208	244	9
Pedestrians	14			6		
Lane Width (m)	3.6			3.6		
Walking Speed (m/s)	1.2			1.2		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	588	268	267			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	588	268	267			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	97	90	95			
cM capacity (veh/h)	409	757	1270			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	84	267	253
Volume Left	11	59	0
Volume Right	73	0	9
cSH	681	1270	1700
Volume to Capacity	0.12	0.05	0.15
Queue Length 95th (m)	3.4	1.2	0.0
Control Delay (s)	11.0	2.1	0.0
Lane LOS	B	A	
Approach Delay (s)	11.0	2.1	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	40.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	55	106	36	26	46	13
Future Volume (Veh/h)	55	106	36	26	46	13
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	65	125	42	31	54	15
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	73				312	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	73				312	58
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				92	99
cM capacity (veh/h)	1527				652	1009

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	190	73	69
Volume Left	65	0	54
Volume Right	0	31	15
cSH	1527	1700	706
Volume to Capacity	0.04	0.04	0.10
Queue Length 95th (m)	1.1	0.0	2.6
Control Delay (s)	2.8	0.0	10.6
Lane LOS	A		B
Approach Delay (s)	2.8	0.0	10.6
Approach LOS			B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	309	5	60	445	10	41
Future Volume (Veh/h)	309	5	60	445	10	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	364	6	71	524	12	48
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			370		1033	367
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			370		1033	367
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	93
cM capacity (veh/h)			1189		242	676

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	370	595	60
Volume Left	0	71	12
Volume Right	6	0	48
cSH	1700	1189	498
Volume to Capacity	0.22	0.06	0.12
Queue Length 95th (m)	0.0	1.5	3.3
Control Delay (s)	0.0	1.6	13.2
Lane LOS		A	B
Approach Delay (s)	0.0	1.6	13.2
Approach LOS			B

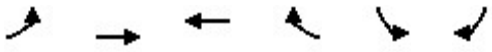
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	34	34	131	120	5
Future Volume (Veh/h)	8	34	34	131	120	5
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	40	40	154	141	6
Pedestrians	6			5	1	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	385	155	153			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	385	155	153			
tC, single (s)	6.6	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	98	95	97			
cM capacity (veh/h)	574	882	1420			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	49	194	147
Volume Left	9	40	0
Volume Right	40	0	6
cSH	803	1420	1700
Volume to Capacity	0.06	0.03	0.09
Queue Length 95th (m)	1.6	0.7	0.0
Control Delay (s)	9.8	1.8	0.0
Lane LOS	A	A	
Approach Delay (s)	9.8	1.8	0.0
Approach LOS	A		

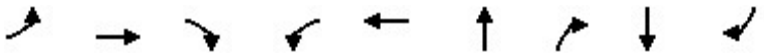
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	31.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	65	93	38	40	62
Future Volume (Veh/h)	19	65	93	38	40	62
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	21	73	104	43	45	70
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	147				240	126
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147				240	126
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	99				94	92
cM capacity (veh/h)	1411				735	925

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	94	147	115
Volume Left	21	0	45
Volume Right	0	43	70
cSH	1411	1700	840
Volume to Capacity	0.01	0.09	0.14
Queue Length 95th (m)	0.4	0.0	3.8
Control Delay (s)	1.8	0.0	10.0
Lane LOS	A		A
Approach Delay (s)	1.8	0.0	10.0
Approach LOS			A

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	460	140	501	198	99	640	23	6
v/c Ratio	0.02	0.76	0.25	0.81	0.16	0.40	0.85	0.08	0.02
Control Delay	22.2	35.1	8.2	25.2	6.2	34.1	17.0	28.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	35.1	8.2	25.2	6.2	34.1	17.0	28.1	0.0
Queue Length 50th (m)	0.6	61.2	2.3	38.4	8.5	13.8	8.7	3.0	0.0
Queue Length 95th (m)	3.7	119.2	16.2	#111.8	24.1	29.9	50.4	9.7	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	525	829	724	749	1517	468	908	553	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.55	0.19	0.67	0.13	0.21	0.70	0.04	0.01

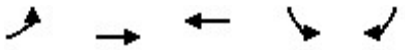
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	405	123	441	169	5	82	5	563	13	7	5
Future Volume (vph)	5	405	123	441	169	5	82	5	563	13	7	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1487	1751	1853			1650	1468		1727	1607
Flt Permitted	0.63	1.00	1.00	0.21	1.00			0.72	1.00		0.83	1.00
Satd. Flow (perm)	1180	1863	1487	387	1853			1247	1468		1478	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	460	140	501	192	6	93	6	640	15	8	6
RTOR Reduction (vph)	0	0	78	0	1	0	0	0	459	0	0	5
Lane Group Flow (vph)	6	460	62	501	197	0	0	99	181	0	23	1
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	25.3	25.3	25.3	51.0	51.0			15.4	15.4		15.4	15.4
Effective Green, g (s)	25.3	25.3	25.3	51.0	51.0			15.4	15.4		15.4	15.4
Actuated g/C Ratio	0.33	0.33	0.33	0.67	0.67			0.20	0.20		0.20	0.20
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	390	616	492	627	1236			251	295		297	323
v/s Ratio Prot		0.25		c0.22	0.11							
v/s Ratio Perm	0.01		0.04	c0.32				0.08	c0.12		0.02	0.00
v/c Ratio	0.02	0.75	0.13	0.80	0.16			0.39	0.61		0.08	0.00
Uniform Delay, d1	17.2	22.7	17.8	13.3	4.7			26.5	27.8		24.7	24.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	5.1	0.1	7.2	0.1			1.2	3.9		0.1	0.0
Delay (s)	17.2	27.8	18.0	20.6	4.8			27.7	31.7		24.9	24.4
Level of Service	B	C	B	C	A			C	C		C	C
Approach Delay (s)		25.4			16.1			31.2			24.8	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	76.4	Sum of lost time (s)	15.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

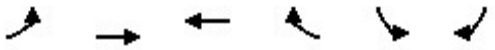
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	760	361	314	213	460
v/c Ratio	0.88	0.27	0.76	0.67	0.44
Control Delay	28.2	5.7	43.6	45.5	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	5.7	43.6	45.5	3.5
Queue Length 50th (m)	92.9	20.5	50.0	37.1	9.1
Queue Length 95th (m)	#182.6	36.3	#94.6	61.1	20.4
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	886	1353	423	395	1070
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.27	0.74	0.54	0.43

Intersection Summary

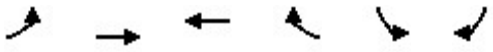
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	707	336	187	105	198	428
Future Volume (vph)	707	336	187	105	198	428
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.95		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1750	1863	1717		1770	1542
Flt Permitted	0.25	1.00	1.00		0.95	1.00
Satd. Flow (perm)	453	1863	1717		1770	1542
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	760	361	201	113	213	460
RTOR Reduction (vph)	0	0	21	0	0	124
Lane Group Flow (vph)	760	361	293	0	213	336
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	63.6	63.6	20.7		16.2	54.1
Effective Green, g (s)	63.6	63.6	20.7		16.2	54.1
Actuated g/C Ratio	0.71	0.71	0.23		0.18	0.60
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	868	1319	395		319	1014
v/s Ratio Prot	c0.37	0.19	0.17		c0.12	0.14
v/s Ratio Perm	c0.25					0.08
v/c Ratio	0.88	0.27	0.74		0.67	0.33
Uniform Delay, d1	15.3	4.7	32.1		34.3	8.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	10.0	0.1	7.6		5.4	0.2
Delay (s)	25.3	4.9	39.7		39.7	9.1
Level of Service	C	A	D		D	A
Approach Delay (s)		18.7	39.7		18.8	
Approach LOS		B	D		B	

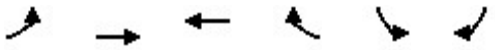
Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	760	361	201	113	213	460
v/c Ratio	0.69	0.29	0.41	0.23	0.58	0.25
Control Delay	26.5	6.7	29.3	7.8	35.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	6.7	29.3	7.8	35.4	0.9
Queue Length 50th (m)	49.2	18.8	24.4	0.2	28.9	0.0
Queue Length 95th (m)	80.6	42.0	57.0	14.1	58.7	5.1
Internal Link Dist (m)		75.2	323.0		126.1	
Turn Bay Length (m)	75.0			25.0	75.0	75.0
Base Capacity (vph)	1621	1614	605	578	562	2146
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.22	0.33	0.20	0.38	0.21

Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	707	336	187	105	198	428
Future Volume (vph)	707	336	187	105	198	428
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00
Flpb, ped/bikes	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)	3400	1863	1827	1524	1770	2733
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1863	1827	1524	1770	2733
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	760	361	201	113	213	460
RTOR Reduction (vph)	0	0	0	81	0	184
Lane Group Flow (vph)	760	361	201	32	213	276
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	5	2	6		4	4 5
Permitted Phases				6		
Actuated Green, G (s)	25.0	50.8	20.8	20.8	16.1	46.1
Effective Green, g (s)	25.0	50.8	20.8	20.8	16.1	46.1
Actuated g/C Ratio	0.33	0.66	0.27	0.27	0.21	0.60
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	1105	1230	494	412	370	1638
v/s Ratio Prot	c0.22	0.19	c0.11		c0.12	0.10
v/s Ratio Perm				0.02		
v/c Ratio	0.69	0.29	0.41	0.08	0.58	0.17
Uniform Delay, d1	22.6	5.5	23.0	20.9	27.3	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.2	0.6	0.1	2.3	0.1
Delay (s)	24.4	5.7	23.6	21.0	29.7	6.9
Level of Service	C	A	C	C	C	A
Approach Delay (s)		18.4	22.7		14.1	
Approach LOS		B	C		B	

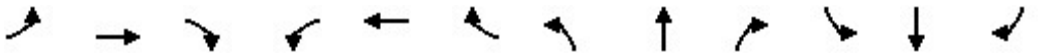
Intersection Summary			
HCM 2000 Control Delay	17.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	76.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	5	8	15	5	7	14	690	20	8	575	16
Future Volume (Veh/h)	7	5	8	15	5	7	14	690	20	8	575	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	6	9	18	6	8	16	812	24	9	676	19
Pedestrians		3			20						19	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			2						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1592	1594	350	1244	1592	863	698			856		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1592	1594	350	1244	1592	863	698			856		
tC, single (s)	7.5	6.5	7.2	7.5	6.5	7.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	87	94	99	85	94	97	98			99		
cM capacity (veh/h)	63	101	611	116	101	261	853			767		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	23	32	852	347	357
Volume Left	8	18	16	9	0
Volume Right	9	8	24	0	19
cSH	114	131	853	767	1700
Volume to Capacity	0.20	0.24	0.02	0.01	0.21
Queue Length 95th (m)	5.7	7.2	0.5	0.3	0.0
Control Delay (s)	44.4	41.3	0.5	0.4	0.0
Lane LOS	E	E	A	A	
Approach Delay (s)	44.4	41.3	0.5	0.2	
Approach LOS	E	E			

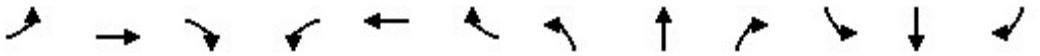
Intersection Summary				
Average Delay	1.8			
Intersection Capacity Utilization	63.5%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	218	15	30	279	42	8	23	27	11	25	92
Future Volume (Veh/h)	36	218	15	30	279	42	8	23	27	11	25	92
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	41	248	17	34	317	48	9	26	31	12	28	105
Pedestrians		11			14			15			7	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	372			280			816	794	286	804	778	359
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	372			280			816	794	286	804	778	359
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	97			97			96	91	96	95	91	84
cM capacity (veh/h)	1180			1267			204	296	711	249	302	675

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	41	265	34	365	66	145
Volume Left	41	0	34	0	9	12
Volume Right	0	17	0	48	31	105
cSH	1180	1700	1267	1700	376	932
Volume to Capacity	0.03	0.16	0.03	0.21	0.18	0.16
Queue Length 95th (m)	0.9	0.0	0.7	0.0	5.0	4.4
Control Delay (s)	8.2	0.0	7.9	0.0	16.6	13.6
Lane LOS	A		A		C	B
Approach Delay (s)	1.1		0.7		16.6	13.6
Approach LOS					C	B

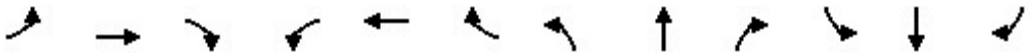
Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	43.6%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	158	27	64	221	18	21	49	46	13	27	13
Future Volume (Veh/h)	25	158	27	64	221	18	21	49	46	13	27	13
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	29	186	32	75	260	21	25	58	54	15	32	15
Pedestrians		11			8			21			20	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	301			239			733	732	231	776	738	302
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	301			239			733	732	231	776	738	302
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	98			94			91	81	93	93	90	98
cM capacity (veh/h)	1239			1305			270	310	786	219	307	719

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	29	218	75	281	137	62
Volume Left	29	0	75	0	25	15
Volume Right	0	32	0	21	54	15
cSH	1239	1700	1305	1700	393	321
Volume to Capacity	0.02	0.13	0.06	0.17	0.35	0.19
Queue Length 95th (m)	0.6	0.0	1.5	0.0	12.2	5.6
Control Delay (s)	8.0	0.0	7.9	0.0	19.0	18.9
Lane LOS	A		A		C	C
Approach Delay (s)	0.9		1.7		19.0	18.9
Approach LOS					C	C

Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	35.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	55	14	148	6	28	6	254	165	11	7	155	32
Future Volume (vph)	55	14	148	6	28	6	254	165	11	7	155	32
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	65	16	174	7	33	7	299	194	13	8	182	38

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	255	47	506	228
Volume Left (vph)	65	7	299	8
Volume Right (vph)	174	7	13	38
Hadj (s)	-0.29	0.02	0.14	-0.06
Departure Headway (s)	5.7	6.5	5.3	5.6
Degree Utilization, x	0.40	0.08	0.75	0.35
Capacity (veh/h)	575	472	656	601
Control Delay (s)	12.5	10.1	22.4	11.5
Approach Delay (s)	12.5	10.1	22.4	11.5
Approach LOS	B	B	C	B

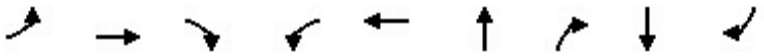
Intersection Summary				
Delay	17.0			
Level of Service	C			
Intersection Capacity Utilization	63.5%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	55	14	148	6	28	6	254	165	11	7	155	32
Future Vol, veh/h	55	14	148	6	28	6	254	165	11	7	155	32
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	8	4	2	2	20	2	2	2	2	2	2
Mvmt Flow	65	16	174	7	33	7	299	194	13	8	182	38
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

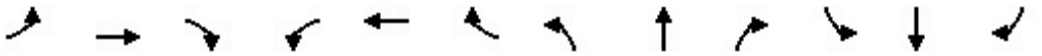
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.4	10	22.2	11.5
HCM LOS	B	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	25%	15%	4%
Vol Thru, %	38%	6%	70%	80%
Vol Right, %	3%	68%	15%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	430	217	40	194
LT Vol	254	55	6	7
Through Vol	165	14	28	155
RT Vol	11	148	6	32
Lane Flow Rate	506	255	47	228
Geometry Grp	1	1	1	1
Degree of Util (X)	0.744	0.4	0.083	0.349
Departure Headway (Hd)	5.295	5.639	6.38	5.51
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	636	558	650
Service Time	3.338	3.696	4.46	3.565
HCM Lane V/C Ratio	0.741	0.401	0.084	0.351
HCM Control Delay	22.2	12.4	10	11.5
HCM Lane LOS	C	B	A	B
HCM 95th-tile Q	6.7	1.9	0.3	1.6



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	7	261	130	706	434	147	487	78	23
v/c Ratio	0.03	0.59	0.28	0.85	0.35	0.60	0.71	0.21	0.06
Control Delay	29.5	35.9	7.9	21.8	7.0	42.2	9.6	30.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.5	35.9	7.9	21.8	7.0	42.2	9.6	30.6	0.3
Queue Length 50th (m)	0.9	37.1	0.0	58.2	25.7	20.6	0.0	10.1	0.0
Queue Length 95th (m)	4.9	74.9	14.9	130.0	49.8	47.1	29.4	25.6	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	297	582	566	1035	1569	383	802	574	554
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.45	0.23	0.68	0.28	0.38	0.61	0.14	0.04

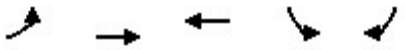
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	235	117	635	385	5	127	5	438	6	64	21
Future Volume (vph)	6	235	117	635	385	5	127	5	438	6	64	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1526	1768	1858			1724	1496		1881	1607
Flt Permitted	0.51	1.00	1.00	0.35	1.00			0.68	1.00		0.97	1.00
Satd. Flow (perm)	951	1863	1526	651	1858			1225	1496		1836	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	261	130	706	428	6	141	6	487	7	71	23
RTOR Reduction (vph)	0	0	98	0	1	0	0	0	388	0	0	18
Lane Group Flow (vph)	7	261	32	706	433	0	0	147	99	0	78	5
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	18.9	18.9	18.9	51.7	51.7			15.7	15.7		15.7	15.7
Effective Green, g (s)	18.9	18.9	18.9	51.7	51.7			15.7	15.7		15.7	15.7
Actuated g/C Ratio	0.24	0.24	0.24	0.67	0.67			0.20	0.20		0.20	0.20
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	232	454	372	836	1241			248	303		372	325
v/s Ratio Prot		0.14		c0.30	0.23							
v/s Ratio Perm	0.01		0.02	c0.26				c0.12	0.07		0.04	0.00
v/c Ratio	0.03	0.57	0.09	0.84	0.35			0.59	0.33		0.21	0.01
Uniform Delay, d1	22.3	25.7	22.6	9.8	5.6			28.0	26.3		25.7	24.7
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	1.9	0.1	8.0	0.2			4.0	0.7		0.3	0.0
Delay (s)	22.3	27.6	22.7	17.9	5.8			31.9	27.1		26.0	24.7
Level of Service	C	C	C	B	A			C	C		C	C
Approach Delay (s)		25.9			13.3			28.2			25.7	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	77.4	Sum of lost time (s)	15.0
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		

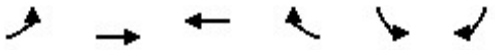
c Critical Lane Group



Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Group Flow (vph)	516	299	653	238	756
v/c Ratio	0.92	0.22	0.94	0.75	0.90
Control Delay	49.0	5.4	50.2	52.7	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	5.4	50.2	52.7	30.7
Queue Length 50th (m)	83.7	18.1	118.5	45.2	88.4
Queue Length 95th (m)	#153.3	29.3	#195.5	72.0	#188.1
Internal Link Dist (m)		90.2	323.0	126.1	
Turn Bay Length (m)	75.0			75.0	
Base Capacity (vph)	563	1374	737	373	840
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.92	0.22	0.89	0.64	0.90

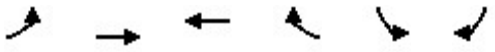
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



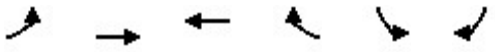
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	490	284	419	201	226	718
Future Volume (vph)	490	284	419	201	226	718
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.96		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1863	1754		1770	1563
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	177	1863	1754		1770	1563
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	516	299	441	212	238	756
RTOR Reduction (vph)	0	0	17	0	0	131
Lane Group Flow (vph)	516	299	636	0	238	625
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	pm+pt	NA	NA		Prot	pm+ov
Protected Phases	5	2	6		4	5
Permitted Phases	2					4
Actuated Green, G (s)	68.2	68.2	37.1		17.2	43.3
Effective Green, g (s)	68.2	68.2	37.1		17.2	43.3
Actuated g/C Ratio	0.71	0.71	0.39		0.18	0.45
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	562	1331	682		319	791
v/s Ratio Prot	c0.25	0.16	0.36		0.13	c0.22
v/s Ratio Perm	c0.40					0.18
v/c Ratio	0.92	0.22	0.93		0.75	0.79
Uniform Delay, d1	26.9	4.6	27.9		37.0	22.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	20.3	0.1	19.9		9.4	5.5
Delay (s)	47.1	4.7	47.8		46.5	27.7
Level of Service	D	A	D		D	C
Approach Delay (s)		31.6	47.8		32.2	
Approach LOS		C	D		C	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	95.4	Sum of lost time (s)	15.0
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	516	299	441	212	238	756
v/c Ratio	0.63	0.25	0.70	0.35	0.60	0.45
Control Delay	32.2	6.8	30.0	11.3	35.9	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	6.8	30.0	11.3	35.9	5.6
Queue Length 50th (m)	36.7	17.6	61.0	10.5	33.5	13.3
Queue Length 95th (m)	66.5	33.0	102.4	28.7	67.5	33.8
Internal Link Dist (m)		75.2	323.0		126.1	
Turn Bay Length (m)	75.0			25.0	75.0	75.0
Base Capacity (vph)	1001	1597	988	868	539	1787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.19	0.45	0.24	0.44	0.42

Intersection Summary



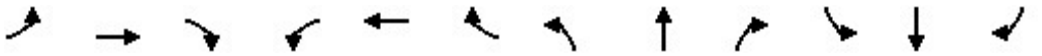
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	490	284	419	201	226	718
Future Volume (vph)	490	284	419	201	226	718
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00
Flpb, ped/bikes	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)	3433	1863	1863	1535	1770	2787
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1535	1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	516	299	441	212	238	756
RTOR Reduction (vph)	0	0	0	78	0	207
Lane Group Flow (vph)	516	299	441	134	238	549
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	5	2	6		4	4 5
Permitted Phases				6		
Actuated Green, G (s)	18.5	50.2	26.7	26.7	17.6	41.1
Effective Green, g (s)	18.5	50.2	26.7	26.7	17.6	41.1
Actuated g/C Ratio	0.24	0.65	0.34	0.34	0.23	0.53
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	816	1202	639	526	400	1472
v/s Ratio Prot	c0.15	0.16	c0.24		c0.13	0.20
v/s Ratio Perm				0.09		
v/c Ratio	0.63	0.25	0.69	0.25	0.59	0.37
Uniform Delay, d1	26.6	5.8	22.0	18.4	26.9	10.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	0.1	3.3	0.3	2.5	0.2
Delay (s)	28.3	6.0	25.3	18.7	29.4	11.0
Level of Service	C	A	C	B	C	B
Approach Delay (s)		20.1	23.2		15.4	
Approach LOS		C	C		B	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	77.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	16	5	18	5	665	23	9	907	5
Future Volume (Veh/h)	5	5	5	16	5	18	5	665	23	9	907	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	5	5	17	5	19	5	700	24	9	955	5
Pedestrians		3			3						20	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			0						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1742	1716	483	1228	1706	735	963			727		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1742	1716	483	1228	1706	735	963			727		
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 %	90	94	99	86	94	95	99			99		
cM capacity (veh/h)	48	87	528	125	88	355	709			870		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	15	41	729	486	482
Volume Left	5	17	5	9	0
Volume Right	5	19	24	0	5
cSH	88	166	709	870	1700
Volume to Capacity	0.17	0.25	0.01	0.01	0.28
Queue Length 95th (m)	4.6	7.4	0.2	0.3	0.0
Control Delay (s)	54.0	33.6	0.2	0.3	0.0
Lane LOS	F	D	A	A	
Approach Delay (s)	54.0	33.6	0.2	0.2	
Approach LOS	F	D			

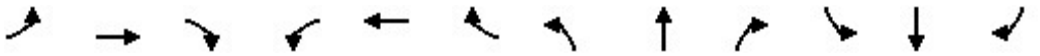
Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	55.7%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	306	25	34	317	32	21	27	64	32	35	102
Future Volume (Veh/h)	23	306	25	34	317	32	21	27	64	32	35	102
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	26	340	28	38	352	36	23	30	71	36	39	113
Pedestrians		32			7			36			13	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			3			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	401			404			978	919	397	944	915	415
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	401			404			978	919	397	944	915	415
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 %	98			97			84	88	89	80	84	82
cM capacity (veh/h)	1129			1115			144	246	623	178	246	614

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	26	368	38	388	124	188
Volume Left	26	0	38	0	23	36
Volume Right	0	28	0	36	71	113
cSH	1129	1700	1115	1700	314	534
Volume to Capacity	0.02	0.22	0.03	0.23	0.40	0.35
Queue Length 95th (m)	0.6	0.0	0.8	0.0	14.6	12.6
Control Delay (s)	8.3	0.0	8.3	0.0	23.8	19.6
Lane LOS	A		A		C	C
Approach Delay (s)	0.5		0.7		23.8	19.6
Approach LOS					C	C

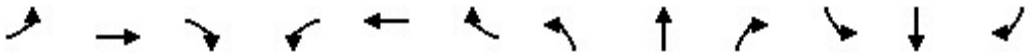
Intersection Summary			
Average Delay	6.3		
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	281	32	40	216	5	30	49	72	16	25	23
Future Volume (Veh/h)	9	281	32	40	216	5	30	49	72	16	25	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	10	302	34	43	232	5	32	53	77	17	27	25
Pedestrians		12			3			16			6	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	243			352			724	684	338	755	698	252
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	243			352			724	684	338	755	698	252
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			96			89	85	89	93	92	97
cM capacity (veh/h)	1255			1191			289	348	693	237	342	774

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	10	336	43	237	162	69
Volume Left	10	0	43	0	32	17
Volume Right	0	34	0	5	77	25
cSH	1255	1700	1191	1700	433	377
Volume to Capacity	0.01	0.20	0.04	0.14	0.37	0.18
Queue Length 95th (m)	0.2	0.0	0.9	0.0	13.6	5.3
Control Delay (s)	7.9	0.0	8.1	0.0	18.2	16.7
Lane LOS	A		A		C	C
Approach Delay (s)	0.2		1.2		18.2	16.7
Approach LOS					C	C

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	38	22	212	5	8	5	257	157	8	6	165	24
Future Volume (vph)	38	22	212	5	8	5	257	157	8	6	165	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	40	23	221	5	8	5	268	164	8	6	172	25

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	284	18	440	203
Volume Left (vph)	40	5	268	6
Volume Right (vph)	221	5	8	25
Hadj (s)	-0.40	-0.08	0.15	-0.01
Departure Headway (s)	5.2	6.1	5.2	5.4
Degree Utilization, x	0.41	0.03	0.64	0.30
Capacity (veh/h)	635	478	665	621
Control Delay (s)	11.8	9.3	16.9	10.7
Approach Delay (s)	11.8	9.3	16.9	10.7
Approach LOS	B	A	C	B

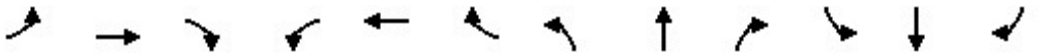
Intersection Summary				
Delay	13.9			
Level of Service	B			
Intersection Capacity Utilization	61.9%	ICU Level of Service	B	
Analysis Period (min)	15			

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	22	212	5	8	5	257	157	8	6	165	24
Future Vol, veh/h	38	22	212	5	8	5	257	157	8	6	165	24
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	6	2	2	2	2	2	2	14	2	4	2
Mvmt Flow	40	23	221	5	8	5	268	164	8	6	172	25
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	9.3	16.8	10.7
HCM LOS	B	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	14%	28%	3%
Vol Thru, %	37%	8%	44%	85%
Vol Right, %	2%	78%	28%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	422	272	18	195
LT Vol	257	38	5	6
Through Vol	157	22	8	165
RT Vol	8	212	5	24
Lane Flow Rate	440	283	19	203
Geometry Grp	1	1	1	1
Degree of Util (X)	0.633	0.409	0.031	0.301
Departure Headway (Hd)	5.186	5.195	6.047	5.341
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	699	691	590	672
Service Time	3.212	3.231	4.102	3.376
HCM Lane V/C Ratio	0.629	0.41	0.032	0.302
HCM Control Delay	16.8	11.8	9.3	10.7
HCM Lane LOS	C	B	A	B
HCM 95th-tile Q	4.5	2	0.1	1.3



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	173	58	0	313	5	22	13	7	0	0	37
Future Volume (Veh/h)	5	173	58	0	313	5	22	13	7	0	0	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	186	62	0	337	5	24	14	8	0	0	40
Pedestrians		21			1			6				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		2			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	337			192			634	570	224	582	542	360
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	337			192			634	570	224	582	542	360
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 %	100			100			93	97	99	100	100	94
cM capacity (veh/h)	1222			1375			358	427	811	406	444	672

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	253	342	46	40
Volume Left	5	0	24	0
Volume Right	62	5	8	40
cSH	1222	1700	419	672
Volume to Capacity	0.00	0.20	0.11	0.06
Queue Length 95th (m)	0.1	0.0	2.9	1.5
Control Delay (s)	0.2	0.0	14.6	10.7
Lane LOS	A		B	B
Approach Delay (s)	0.2	0.0	14.6	10.7
Approach LOS			B	B

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	39.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	330	58	54	140	5	30	5	93	5	5	5
Future Volume (Veh/h)	5	330	58	54	140	5	30	5	93	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	5	359	63	59	152	5	33	5	101	5	5	5
Pedestrians		1			40			31			18	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			3			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	175			453			712	724	462	834	754	174
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	175			453			712	724	462	834	754	174
tC, single (s)	4.3			4.2			7.1	6.7	6.3	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.4			2.3			3.5	4.2	3.4	3.5	4.0	3.6
p0 queue free %	100			94			89	98	82	98	98	99
cM capacity (veh/h)	1280			1044			304	298	557	205	305	783

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	427	216	38	101	15
Volume Left	5	59	33	0	5
Volume Right	63	5	0	101	5
cSH	1280	1044	304	557	318
Volume to Capacity	0.00	0.06	0.13	0.18	0.05
Queue Length 95th (m)	0.1	1.4	3.4	5.3	1.2
Control Delay (s)	0.1	2.8	18.5	12.9	16.9
Lane LOS	A	A	C	B	C
Approach Delay (s)	0.1	2.8	14.4		16.9
Approach LOS			B		C

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	228	19	37	196	34	5	22	11	6	22	19
Future Volume (Veh/h)	25	228	19	37	196	34	5	22	11	6	22	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	29	268	22	44	231	40	6	26	13	7	26	22
Pedestrians		14			12			27			51	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	322			317			752	774	318	765	765	316
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	322			317			752	774	318	765	765	316
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 %	98			96			98	91	98	97	91	97
cM capacity (veh/h)	1169			1215			259	290	699	252	293	686

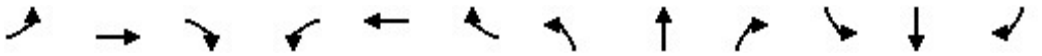
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	319	315	45	55
Volume Left	29	44	6	7
Volume Right	22	40	13	22
cSH	1169	1215	342	370
Volume to Capacity	0.02	0.04	0.13	0.15
Queue Length 95th (m)	0.6	0.9	3.6	4.1
Control Delay (s)	1.0	1.4	17.1	16.4
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	1.4	17.1	16.4
Approach LOS			C	C

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	36.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	179	22	25	177	28	14	13	19	7	14	19
Future Volume (Veh/h)	32	179	22	25	177	28	14	13	19	7	14	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	36	203	25	28	201	32	16	15	22	8	16	22
Pedestrians		34			12			1			39	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			0			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	272			229			626	616	228	641	613	290
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	272			229			626	616	228	641	613	290
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.5
p0 queue free %	97			98			95	96	97	98	96	97
cM capacity (veh/h)	1201			1338			338	373	802	328	374	656

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	264	261	53	46
Volume Left	36	28	16	8
Volume Right	25	32	22	22
cSH	1201	1338	461	457
Volume to Capacity	0.03	0.02	0.12	0.10
Queue Length 95th (m)	0.7	0.5	3.1	2.7
Control Delay (s)	1.3	1.0	13.8	13.8
Lane LOS	A	A	B	B
Approach Delay (s)	1.3	1.0	13.8	13.8
Approach LOS			B	B

Intersection Summary				
Average Delay	3.2			
Intersection Capacity Utilization	34.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	336	114	0	232	5	16	6	6	0	0	26
Future Volume (Veh/h)	8	336	114	0	232	5	16	6	6	0	0	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	9	365	124	0	252	5	17	7	7	0	0	28
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	252			366			728	698	428	710	638	254
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	252			366			728	698	428	710	638	254
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 %	99			100			95	98	99	100	100	96
cM capacity (veh/h)	1313			1192			324	362	626	337	391	784

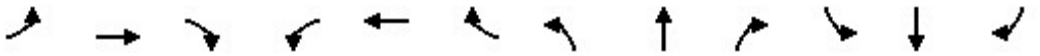
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	498	257	31	28
Volume Left	9	0	17	0
Volume Right	124	5	7	28
cSH	1313	1700	374	784
Volume to Capacity	0.01	0.15	0.08	0.04
Queue Length 95th (m)	0.2	0.0	2.2	0.9
Control Delay (s)	0.2	0.0	15.5	9.8
Lane LOS	A		C	A
Approach Delay (s)	0.2	0.0	15.5	9.8
Approach LOS			C	A

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	328	54	107	329	5	47	5	153	7	5	30
Future Volume (Veh/h)	5	328	54	107	329	5	47	5	153	7	5	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	353	58	115	354	5	51	5	165	8	5	32
Pedestrians		2			43			38			27	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			4			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	386			449			1053	1046	463	1216	1072	386
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	386			449			1053	1046	463	1216	1072	386
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 %	100			89			68	97	70	91	97	95
cM capacity (veh/h)	1146			1076			161	192	559	90	185	642

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	416	474	56	165	45
Volume Left	5	115	51	0	8
Volume Right	58	5	0	165	32
cSH	1146	1076	164	559	272
Volume to Capacity	0.00	0.11	0.34	0.30	0.17
Queue Length 95th (m)	0.1	2.9	11.3	9.8	4.7
Control Delay (s)	0.1	3.0	38.0	14.1	20.8
Lane LOS	A	A	E	B	C
Approach Delay (s)	0.1	3.0	20.2		20.8
Approach LOS			C		C

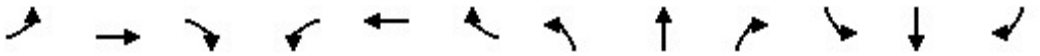
Intersection Summary				
Average Delay	6.0			
Intersection Capacity Utilization	67.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	340	32	35	330	39	5	42	41	16	29	84
Future Volume (Veh/h)	48	340	32	35	330	39	5	42	41	16	29	84
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	51	358	34	37	347	41	5	44	43	17	31	88
Pedestrians		33			40			119			122	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			3			10			10	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	510			511			1174	1180	534	1146	1176	522
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	510			511			1174	1180	534	1146	1176	522
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			96			94	69	91	80	78	82
cM capacity (veh/h)	948			950			81	140	476	85	141	484

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	443	425	92	136
Volume Left	51	37	5	17
Volume Right	34	41	43	88
cSH	948	950	197	226
Volume to Capacity	0.05	0.04	0.47	0.60
Queue Length 95th (m)	1.4	1.0	17.9	27.7
Control Delay (s)	1.6	1.2	38.3	42.5
Lane LOS	A	A	E	E
Approach Delay (s)	1.6	1.2	38.3	42.5
Approach LOS			E	E

Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	314	28	25	285	36	13	15	32	22	23	48
Future Volume (Veh/h)	28	314	28	25	285	36	13	15	32	22	23	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	29	327	29	26	297	38	14	16	33	23	24	50
Pedestrians		51			35			1			71	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			3			0			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	406			357			882	858	378	914	854	438
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	406			357			882	858	378	914	854	438
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	97			98			93	94	95	88	91	91
cM capacity (veh/h)	1074			1201			198	263	645	193	262	539

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	385	361	63	97
Volume Left	29	26	14	23
Volume Right	29	38	33	50
cSH	1074	1201	345	319
Volume to Capacity	0.03	0.02	0.18	0.30
Queue Length 95th (m)	0.7	0.5	5.3	10.0
Control Delay (s)	0.9	0.8	17.7	21.1
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	0.8	17.7	21.1
Approach LOS			C	C

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	6	26	5	5	33	19	515	8	17	261	31
Future Volume (Veh/h)	20	6	26	5	5	33	19	515	8	17	261	31
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	23	7	30	6	6	38	22	585	9	19	297	35
Pedestrians		14			6			1			10	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1046	1010	330	1009	1024	606	346			600		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1046	1010	330	1009	1024	606	346			600		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	97	96	97	97	92	98			98		
cM capacity (veh/h)	175	227	687	195	223	487	1199			972		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	60	50	22	594	19	332
Volume Left	23	6	22	0	19	0
Volume Right	30	38	0	9	0	35
cSH	292	368	1199	1700	972	1700
Volume to Capacity	0.21	0.14	0.02	0.35	0.02	0.20
Queue Length 95th (m)	6.1	3.7	0.4	0.0	0.5	0.0
Control Delay (s)	20.5	16.3	8.1	0.0	8.8	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	20.5	16.3	0.3		0.5	
Approach LOS	C	C				

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	41.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	7	69	5	20	46	56	361	5	8	193	64
Future Volume (Veh/h)	143	7	69	5	20	46	56	361	5	8	193	64
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	155	8	75	5	22	50	61	392	5	9	210	70
Pedestrians		11			2						5	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	854	795	256	826	828	402	291			399		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	854	795	256	826	828	402	291			399		
tC, single (s)	7.1	6.5	6.2	7.1	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 %	32	97	90	98	92	92	95			99		
cM capacity (veh/h)	226	299	775	244	286	628	1259			1158		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	163	75	77	61	397	9	280
Volume Left	155	0	5	61	0	9	0
Volume Right	0	75	50	0	5	0	70
cSH	229	775	435	1259	1700	1158	1700
Volume to Capacity	0.71	0.10	0.18	0.05	0.23	0.01	0.16
Queue Length 95th (m)	37.7	2.6	5.1	1.2	0.0	0.2	0.0
Control Delay (s)	51.9	10.1	15.0	8.0	0.0	8.1	0.0
Lane LOS	F	B	C	A		A	
Approach Delay (s)	38.8		15.0	1.1		0.3	
Approach LOS	E		C				

Intersection Summary				
Average Delay	10.3			
Intersection Capacity Utilization	47.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	5	5	135	126	41
Future Volume (Veh/h)	84	5	5	135	126	41
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	88	5	5	141	131	43
Pedestrians	2			2	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	310	156	176			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310	156	176			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	99	100			
cM capacity (veh/h)	676	886	1398			

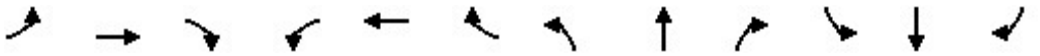
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	93	146	174
Volume Left	88	5	0
Volume Right	5	0	43
cSH	684	1398	1700
Volume to Capacity	0.14	0.00	0.10
Queue Length 95th (m)	3.8	0.1	0.0
Control Delay (s)	11.1	0.3	0.0
Lane LOS	B	A	
Approach Delay (s)	11.1	0.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	15	22	8	25	11	29	201	46	5	138	27
Future Volume (Veh/h)	14	15	22	8	25	11	29	201	46	5	138	27
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	16	17	25	9	29	13	33	231	53	6	159	31
Pedestrians		38			8			7			12	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	546	567	204	516	545	251	228			292		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	546	567	204	516	545	251	228			292		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.4		
p0 queue free %	96	96	97	98	93	98	97			99		
cM capacity (veh/h)	372	404	798	412	412	775	1298			1166		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	58	51	264	53	165	31
Volume Left	16	9	33	0	6	0
Volume Right	25	13	0	53	0	31
cSH	498	468	1298	1700	1166	1700
Volume to Capacity	0.12	0.11	0.03	0.03	0.01	0.02
Queue Length 95th (m)	3.1	2.9	0.6	0.0	0.1	0.0
Control Delay (s)	13.2	13.6	1.2	0.0	0.3	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	13.2	13.6	1.0		0.3	
Approach LOS	B	B				

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	40.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	22	19	0	9	0	371	54	6	221	0
Future Volume (Veh/h)	21	5	22	19	0	9	0	371	54	6	221	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	24	6	25	22	0	10	0	422	61	7	251	0
Pedestrians		17			9			1			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	750	774	269	756	744	466	268			492		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	750	774	269	756	744	466	268			492		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	92	98	97	93	100	98	100			99		
cM capacity (veh/h)	305	320	758	296	333	589	1277			1063		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	55	32	483	258
Volume Left	24	22	0	7
Volume Right	25	10	61	0
cSH	422	350	1700	1063
Volume to Capacity	0.13	0.09	0.28	0.01
Queue Length 95th (m)	3.6	2.4	0.0	0.2
Control Delay (s)	14.8	16.3	0.0	0.3
Lane LOS	B	C		A
Approach Delay (s)	14.8	16.3	0.0	0.3
Approach LOS	B	C		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	5	19	5	8	57	31	494	5	24	459	57
Future Volume (Veh/h)	21	5	19	5	8	57	31	494	5	24	459	57
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	23	5	21	5	9	62	34	537	5	26	499	62
Pedestrians		29			5			1			21	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1304	1226	560	1188	1254	566	590			547		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1304	1226	560	1188	1254	566	590			547		
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 %	78	97	96	97	94	88	96			97		
cM capacity (veh/h)	103	163	515	144	157	513	952			1018		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	49	76	34	542	26	561
Volume Left	23	5	34	0	26	0
Volume Right	21	62	0	5	0	62
cSH	167	357	952	1700	1018	1700
Volume to Capacity	0.29	0.21	0.04	0.32	0.03	0.33
Queue Length 95th (m)	9.3	6.4	0.9	0.0	0.6	0.0
Control Delay (s)	35.3	17.8	8.9	0.0	8.6	0.0
Lane LOS	E	C	A		A	
Approach Delay (s)	35.3	17.8	0.5		0.4	
Approach LOS	E	C				

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	44.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	6	26	5	34	63	51	332	5	11	302	152
Future Volume (Veh/h)	116	6	26	5	34	63	51	332	5	11	302	152
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	121	6	27	5	35	66	53	346	5	11	315	158
Pedestrians		19			2						1	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		2			0						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	972	894	413	824	970	352	492			353		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	972	894	413	824	970	352	492			353		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	30	98	96	98	85	90	95			99		
cM capacity (veh/h)	172	259	629	258	234	690	1054			1156		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	127	27	106	53	351	11	473
Volume Left	121	0	5	53	0	11	0
Volume Right	0	27	66	0	5	0	158
cSH	175	629	401	1054	1700	1156	1700
Volume to Capacity	0.73	0.04	0.26	0.05	0.21	0.01	0.28
Queue Length 95th (m)	36.2	1.1	8.4	1.3	0.0	0.2	0.0
Control Delay (s)	66.4	11.0	17.2	8.6	0.0	8.1	0.0
Lane LOS	F	B	C	A		A	
Approach Delay (s)	56.7		17.2	1.1		0.2	
Approach LOS	F		C				

Intersection Summary				
Average Delay	9.7			
Intersection Capacity Utilization	52.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	7	12	182	120	104
Future Volume (Veh/h)	65	7	12	182	120	104
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	73	8	13	204	135	117
Pedestrians	1			1	3	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	428	196	253			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428	196	253			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	99	99			
cM capacity (veh/h)	576	844	1311			

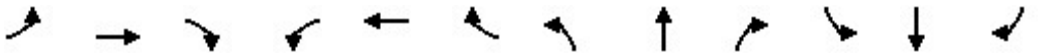
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	81	217	252
Volume Left	73	13	0
Volume Right	8	0	117
cSH	595	1311	1700
Volume to Capacity	0.14	0.01	0.15
Queue Length 95th (m)	3.8	0.2	0.0
Control Delay (s)	12.0	0.5	0.0
Lane LOS	B	A	
Approach Delay (s)	12.0	0.5	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	30.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	36	81	33	64	21	41	315	56	11	230	89
Future Volume (Veh/h)	49	36	81	33	64	21	41	315	56	11	230	89
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	53	39	87	35	69	23	44	339	60	12	247	96
Pedestrians		42			20			14			33	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			2			1			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	830	820	303	838	856	392	385			419		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	830	820	303	838	856	392	385			419		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	73	86	88	83	74	96	96			99		
cM capacity (veh/h)	194	275	703	201	266	628	1132			1121		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	179	127	383	60	259	96
Volume Left	53	35	44	0	12	0
Volume Right	87	23	0	60	0	96
cSH	332	270	1132	1700	1121	1700
Volume to Capacity	0.54	0.47	0.04	0.04	0.01	0.06
Queue Length 95th (m)	24.2	18.8	1.0	0.0	0.3	0.0
Control Delay (s)	27.8	29.6	1.3	0.0	0.5	0.0
Lane LOS	D	D	A		A	
Approach Delay (s)	27.8	29.6	1.1		0.4	
Approach LOS	D	D				

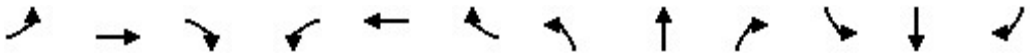
Intersection Summary			
Average Delay	8.5		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	5	40	57	0	28	0	468	43	15	383	0
Future Volume (Veh/h)	33	5	40	57	0	28	0	468	43	15	383	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	37	6	44	63	0	31	0	520	48	17	426	0
Pedestrians		40			20			10			15	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1090	1088	476	1081	1064	579	466			588		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1090	1088	476	1081	1064	579	466			588		
tC, single (s)	7.2	6.9	6.2	7.1	7.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.9	3.3	2.2			2.2		
p0 queue free %	76	97	92	61	100	94	100			98		
cM capacity (veh/h)	157	172	565	162	142	496	1059			971		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	87	94	568	443
Volume Left	37	63	0	17
Volume Right	44	31	48	0
cSH	250	209	1700	971
Volume to Capacity	0.35	0.45	0.33	0.02
Queue Length 95th (m)	11.9	17.1	0.0	0.4
Control Delay (s)	26.9	35.7	0.0	0.5
Lane LOS	D	E		A
Approach Delay (s)	26.9	35.7	0.0	0.5
Approach LOS	D	E		

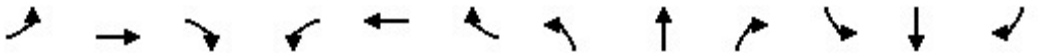
Intersection Summary				
Average Delay	5.0			
Intersection Capacity Utilization	49.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	857	5	8	671	12	5	5	23	5	5	6
Future Volume (Veh/h)	5	857	5	8	671	12	5	5	23	5	5	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	985	6	9	771	14	6	6	26	6	6	7
Pedestrians		1						5			14	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	799			996			1420	1822	500	1344	1818	408
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	799			996			1420	1822	500	1344	1818	408
tC, single (s)	4.5			4.1			7.5	6.5	6.9	8.5	6.5	7.7
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.0	3.3	4.0	4.0	3.7
p0 queue free %	99			99			93	92	95	90	92	99
cM capacity (veh/h)	704			687			87	74	514	62	74	492

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	498	498	394	400	38	19
Volume Left	6	0	9	0	6	6
Volume Right	0	6	0	14	26	7
cSH	704	1700	687	1700	189	99
Volume to Capacity	0.01	0.29	0.01	0.23	0.20	0.19
Queue Length 95th (m)	0.2	0.0	0.3	0.0	5.8	5.3
Control Delay (s)	0.2	0.0	0.4	0.0	28.8	49.7
Lane LOS	A		A		D	E
Approach Delay (s)	0.1		0.2		28.8	49.7
Approach LOS					D	E

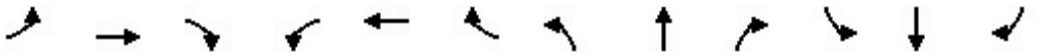
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	37.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	796	5	5	450	44	5	5	5	12	5	29
Future Volume (Veh/h)	40	796	5	5	450	44	5	5	5	12	5	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	42	829	5	5	469	46	5	5	5	12	5	30
Pedestrians								6			1	
Lane Width (m)								3.6			3.6	
Walking Speed (m/s)								1.2			1.2	
Percent Blockage								1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	516			840			1198	1448	423	1009	1427	258
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	516			840			1198	1448	423	1009	1427	258
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	96			99			96	96	99	93	96	96
cM capacity (veh/h)	1045			787			126	123	577	179	127	740

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	42	553	281	240	280	15	17	30
Volume Left	42	0	0	5	0	5	12	0
Volume Right	0	0	5	0	46	5	0	30
cSH	1045	1700	1700	787	1700	169	160	740
Volume to Capacity	0.04	0.33	0.17	0.01	0.17	0.09	0.11	0.04
Queue Length 95th (m)	1.0	0.0	0.0	0.2	0.0	2.3	2.8	1.0
Control Delay (s)	8.6	0.0	0.0	0.3	0.0	28.4	30.2	10.1
Lane LOS	A			A		D	D	B
Approach Delay (s)	0.4			0.1		28.4	17.3	
Approach LOS						D	C	

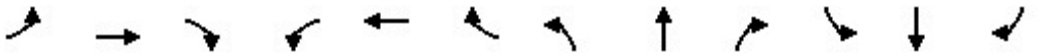
Intersection Summary				
Average Delay	1.1			
Intersection Capacity Utilization	45.1%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	172	8	47	309	14	6	55	15	5	48	81
Future Volume (Veh/h)	50	172	8	47	309	14	6	55	15	5	48	81
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	59	202	9	55	364	16	7	65	18	6	56	95
Pedestrians		38						24			24	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		3						2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	404			235			992	862	230	881	859	434
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	404			235			992	862	230	881	859	434
tC, single (s)	4.1			4.1			7.1	6.6	6.3	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.4	3.5	4.0	3.4
p0 queue free %	95			96			95	74	98	97	78	84
cM capacity (veh/h)	1132			1306			134	251	778	186	256	582

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	270	435	90	157
Volume Left	59	55	7	6
Volume Right	9	16	18	95
cSH	1132	1306	270	379
Volume to Capacity	0.05	0.04	0.33	0.41
Queue Length 95th (m)	1.3	1.1	11.3	15.8
Control Delay (s)	2.2	1.4	24.9	21.0
Lane LOS	A	A	C	C
Approach Delay (s)	2.2	1.4	24.9	21.0
Approach LOS			C	C

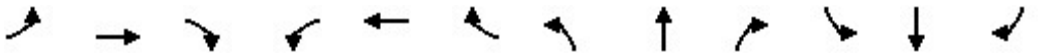
Intersection Summary			
Average Delay	7.1		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	684	5	32	1018	8	5	5	33	8	5	5
Future Volume (Veh/h)	5	684	5	32	1018	8	5	5	33	8	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	5	705	5	33	1049	8	5	5	34	8	5	5
Pedestrians		3						5			8	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1065			715			1324	1854	360	1526	1852	540
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1065			715			1324	1854	360	1526	1852	540
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	99			96			95	93	95	88	93	99
cM capacity (veh/h)	646			878			101	69	634	69	69	482

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	358	358	558	532	44	18
Volume Left	5	0	33	0	5	8
Volume Right	0	5	0	8	34	5
cSH	646	1700	878	1700	251	90
Volume to Capacity	0.01	0.21	0.04	0.31	0.18	0.20
Queue Length 95th (m)	0.2	0.0	0.9	0.0	5.0	5.5
Control Delay (s)	0.3	0.0	1.0	0.0	22.4	54.5
Lane LOS	A		A		C	F
Approach Delay (s)	0.1		0.5		22.4	54.5
Approach LOS					C	F

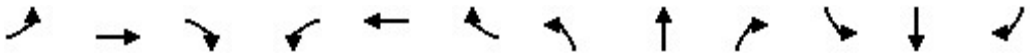
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	592	5	5	820	214	5	5	5	43	5	272
Future Volume (Veh/h)	114	592	5	5	820	214	5	5	5	43	5	272
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	118	610	5	5	845	221	5	5	5	44	5	280
Pedestrians					1			3			14	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1080			618			1566	1942	312	1529	1834	547
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1080			618			1566	1942	312	1529	1834	547
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.6	6.5	6.9
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 %	81			99			80	90	99	28	92	41
cM capacity (veh/h)	634			956			24	51	682	61	60	475

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	118	407	208	428	644	15	49	280
Volume Left	118	0	0	5	0	5	44	0
Volume Right	0	0	5	0	221	5	0	280
cSH	634	1700	1700	956	1700	48	61	475
Volume to Capacity	0.19	0.24	0.12	0.01	0.38	0.31	0.80	0.59
Queue Length 95th (m)	5.4	0.0	0.0	0.1	0.0	8.6	28.9	29.8
Control Delay (s)	12.0	0.0	0.0	0.2	0.0	109.5	172.9	22.9
Lane LOS	B			A		F	F	C
Approach Delay (s)	1.9			0.1		109.5	45.2	
Approach LOS						F	E	

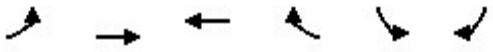
Intersection Summary				
Average Delay	8.4			
Intersection Capacity Utilization	62.6%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	378	30	23	254	8	14	26	35	11	47	57
Future Volume (Veh/h)	42	378	30	23	254	8	14	26	35	11	47	57
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	43	390	31	24	262	8	14	27	36	11	48	59
Pedestrians		5						6			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	276			427			900	822	412	861	833	277
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	276			427			900	822	412	861	833	277
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 %	97			98			93	91	94	95	83	92
cM capacity (veh/h)	1281			1127			197	289	637	229	284	750

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	464	294	77	118
Volume Left	43	24	14	11
Volume Right	31	8	36	59
cSH	1281	1127	348	399
Volume to Capacity	0.03	0.02	0.22	0.30
Queue Length 95th (m)	0.8	0.5	6.6	9.7
Control Delay (s)	1.1	0.9	18.2	17.8
Lane LOS	A	A	C	C
Approach Delay (s)	1.1	0.9	18.2	17.8
Approach LOS			C	C

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	113	316	421	5	5	133
Future Volume (Veh/h)	113	316	421	5	5	133
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	122	340	453	5	5	143
Pedestrians		14				
Lane Width (m)		3.6				
Walking Speed (m/s)		1.2				
Percent Blockage		1				
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	458				1040	470
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	458				1040	470
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	89				98	76
cM capacity (veh/h)	1103				227	587

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	462	458	148
Volume Left	122	0	5
Volume Right	0	5	143
cSH	1103	1700	557
Volume to Capacity	0.11	0.27	0.27
Queue Length 95th (m)	3.0	0.0	8.5
Control Delay (s)	3.2	0.0	13.8
Lane LOS	A		B
Approach Delay (s)	3.2	0.0	13.8
Approach LOS			B

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	6	400	336	292	326	18
v/c Ratio	0.02	0.74	0.62	0.27	0.68	0.06
Control Delay	14.0	25.1	11.8	6.0	14.5	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	25.1	11.8	6.0	14.5	13.7
Queue Length 50th (m)	0.4	28.7	11.5	9.3	8.2	0.9
Queue Length 95th (m)	2.6	#69.8	31.2	25.9	25.0	4.6
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	414	681	582	1295	698	567
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.59	0.58	0.23	0.47	0.03

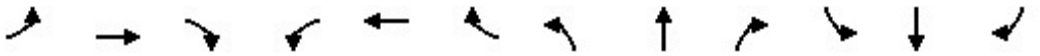
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	257	83	286	233	15	70	7	201	5	5	5
Future Volume (vph)	5	257	83	286	233	15	70	7	201	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99			1.00	
Frt	1.00	0.96		1.00	0.99			0.90			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1754	1723		1758	1818			1580			1628	
Flt Permitted	0.58	1.00		0.27	1.00			0.91			0.88	
Satd. Flow (perm)	1073	1723		502	1818			1453			1457	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	6	302	98	336	274	18	82	8	236	6	6	6
RTOR Reduction (vph)	0	19	0	0	4	0	0	178	0	0	5	0
Lane Group Flow (vph)	6	381	0	336	288	0	0	148	0	0	13	0
Confl. Peds. (#/hr)	10		52	52		10	17		5	5		17
Heavy Vehicles (%)	2%	2%	10%	2%	3%	8%	12%	2%	2%	2%	20%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	14.9	14.9		28.9	28.9			9.9			9.9	
Effective Green, g (s)	14.9	14.9		28.9	28.9			9.9			9.9	
Actuated g/C Ratio	0.31	0.31		0.60	0.60			0.21			0.21	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	334	537		553	1099			300			301	
v/s Ratio Prot		0.22		c0.12	0.16							
v/s Ratio Perm	0.01			c0.25				c0.10			0.01	
v/c Ratio	0.02	0.71		0.61	0.26			0.49			0.04	
Uniform Delay, d1	11.4	14.5		6.0	4.4			16.7			15.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	4.3		1.9	0.1			1.3			0.1	
Delay (s)	11.4	18.8		7.9	4.6			18.0			15.2	
Level of Service	B	B		A	A			B			B	
Approach Delay (s)		18.7			6.4			18.0			15.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	47.8	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

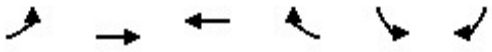
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	96	14	9	330	14	27	75	19	7	79	60
Future Volume (Veh/h)	12	96	14	9	330	14	27	75	19	7	79	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	14	113	16	11	388	16	32	88	22	8	93	71
Pedestrians		44									29	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		4									2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	433			129			728	604	121	662	604	469
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	433			129			728	604	121	662	604	469
tC, single (s)	4.2			4.2			7.1	6.5	6.3	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.5	4.0	3.4	3.7	4.0	3.3
p0 queue free %	99			99			86	78	98	97	76	87
cM capacity (veh/h)	1059			1391			225	393	920	271	394	559

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	143	415	142	172
Volume Left	14	11	32	8
Volume Right	16	16	22	71
cSH	1059	1391	364	438
Volume to Capacity	0.01	0.01	0.39	0.39
Queue Length 95th (m)	0.3	0.2	14.4	14.7
Control Delay (s)	0.9	0.3	21.1	18.4
Lane LOS	A	A	C	C
Approach Delay (s)	0.9	0.3	21.1	18.4
Approach LOS			C	C

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	145	412	361	5	5	184
Future Volume (Veh/h)	145	412	361	5	5	184
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	149	425	372	5	5	190
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	377				1098	374
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	377				1098	374
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	87				98	72
cM capacity (veh/h)	1181				206	672

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	574	377	195
Volume Left	149	0	5
Volume Right	0	5	190
cSH	1181	1700	635
Volume to Capacity	0.13	0.22	0.31
Queue Length 95th (m)	3.5	0.0	10.4
Control Delay (s)	3.3	0.0	13.2
Lane LOS	A		B
Approach Delay (s)	3.3	0.0	13.2
Approach LOS			B

Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	5	203	281	278	497	44
v/c Ratio	0.02	0.45	0.53	0.30	0.71	0.15
Control Delay	12.6	14.1	11.0	7.0	8.9	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	14.1	11.0	7.0	8.9	10.2
Queue Length 50th (m)	0.2	8.1	7.6	7.1	2.9	1.5
Queue Length 95th (m)	2.3	27.4	#30.1	28.0	21.5	7.2
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	549	908	534	1416	1004	601
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.22	0.53	0.20	0.50	0.07

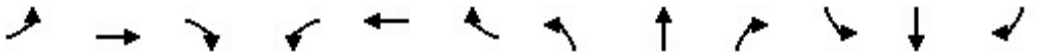
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	142	53	270	245	22	49	8	420	19	11	12
Future Volume (vph)	5	142	53	270	245	22	49	8	420	19	11	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.88			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1766	1775		1751	1836			1601			1734	
Flt Permitted	0.59	1.00		0.42	1.00			0.96			0.66	
Satd. Flow (perm)	1094	1775		780	1836			1544			1162	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	148	55	281	255	23	51	8	438	20	11	12
RTOR Reduction (vph)	0	27	0	0	6	0	0	332	0	0	10	0
Lane Group Flow (vph)	5	176	0	281	272	0	0	165	0	0	34	0
Confl. Peds. (#/hr)	3		4	4		3	7		1	1		7
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	9.2	9.2		19.0	19.0			8.9			8.9	
Effective Green, g (s)	9.2	9.2		19.0	19.0			8.9			8.9	
Actuated g/C Ratio	0.25	0.25		0.51	0.51			0.24			0.24	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	272	442		541	945			372			280	
v/s Ratio Prot		0.10		c0.07	0.15							
v/s Ratio Perm	0.00			c0.19				c0.11			0.03	
v/c Ratio	0.02	0.40		0.52	0.29			0.44			0.12	
Uniform Delay, d1	10.4	11.5		5.5	5.1			11.9			10.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.6		0.8	0.2			0.8			0.2	
Delay (s)	10.5	12.1		6.4	5.3			12.7			11.1	
Level of Service	B	B		A	A			B			B	
Approach Delay (s)		12.1			5.8			12.7			11.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	36.9	Sum of lost time (s)	13.5
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	221	15	7	197	6	26	92	27	25	63	47
Future Volume (Veh/h)	35	221	15	7	197	6	26	92	27	25	63	47
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	37	235	16	7	210	6	28	98	29	27	67	50
Pedestrians		10			1						7	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	223			251			638	554	244	630	559	230
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	223			251			638	554	244	630	559	230
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 %	97			99			91	77	96	91	84	94
cM capacity (veh/h)	1338			1314			309	424	794	301	421	798

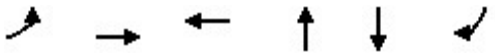
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	288	223	155	144
Volume Left	37	7	28	27
Volume Right	16	6	29	50
cSH	1338	1314	432	462
Volume to Capacity	0.03	0.01	0.36	0.31
Queue Length 95th (m)	0.7	0.1	12.8	10.5
Control Delay (s)	1.2	0.3	17.9	16.3
Lane LOS	A	A	C	C
Approach Delay (s)	1.2	0.3	17.9	16.3
Approach LOS			C	C

Intersection Summary				
Average Delay	6.8			
Intersection Capacity Utilization	46.4%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	20	21	37	50	43	36	382	41	41	397	9
Future Volume (Veh/h)	8	20	21	37	50	43	36	382	41	41	397	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	8	21	22	38	52	44	37	394	42	42	409	9
Pedestrians		5			4			18				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			0			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1062	1016	436	1041	1000	419	423			440		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1062	1016	436	1041	1000	419	423			440		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	94	90	96	78	77	93	97			96		
cM capacity (veh/h)	145	219	608	172	224	630	1131			1095		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	51	134	473	460
Volume Left	8	38	37	42
Volume Right	22	44	42	9
cSH	272	256	1131	1095
Volume to Capacity	0.19	0.52	0.03	0.04
Queue Length 95th (m)	5.4	22.2	0.8	1.0
Control Delay (s)	21.2	33.4	1.0	1.2
Lane LOS	C	D	A	A
Approach Delay (s)	21.2	33.4	1.0	1.2
Approach LOS	C	D		

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		



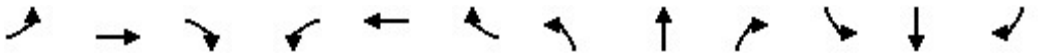
Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	136	307	808	15	43	127
v/c Ratio	0.33	0.15	0.39	0.05	0.16	0.31
Control Delay	7.8	4.1	4.9	10.8	13.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	4.1	4.9	10.8	13.8	5.8
Queue Length 50th (m)	3.6	3.6	11.0	0.4	1.9	0.0
Queue Length 95th (m)	13.3	8.4	22.3	4.0	8.8	9.5
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	521	2642	2655	820	733	921
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.12	0.30	0.02	0.06	0.14

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	278	5	5	642	97	5	5	5	35	5	117
Future Volume (vph)	125	278	5	5	642	97	5	5	5	35	5	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.96	1.00
Satd. Flow (prot)	1749	3232			3400			1651			1710	1560
Flt Permitted	0.35	1.00			0.95			0.88			0.74	1.00
Satd. Flow (perm)	638	3232			3242			1474			1321	1560
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)	136	302	5	5	698	105	5	5	5	38	5	127
RTOR Reduction (vph)	0	2	0	0	18	0	0	4	0	0	0	108
Lane Group Flow (vph)	136	305	0	0	790	0	0	11	0	0	43	19
Confl. Peds. (#/hr)	6		8	8		6	5					5
Heavy Vehicles (%)	3%	11%	33%	2%	4%	2%	2%	2%	20%	7%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	20.9	20.9			20.9			5.4			5.4	5.4
Effective Green, g (s)	20.9	20.9			20.9			5.4			5.4	5.4
Actuated g/C Ratio	0.59	0.59			0.59			0.15			0.15	0.15
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	377	1913			1919			225			202	238
v/s Ratio Prot		0.09										
v/s Ratio Perm	0.21				c0.24			0.01			c0.03	0.01
v/c Ratio	0.36	0.16			0.41			0.05			0.21	0.08
Uniform Delay, d1	3.7	3.2			3.9			12.8			13.1	12.8
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	0.6	0.0			0.1			0.1			0.5	0.1
Delay (s)	4.3	3.3			4.0			12.8			13.6	13.0
Level of Service	A	A			A			B			B	B
Approach Delay (s)		3.6			4.0			12.8			13.1	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	35.3	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

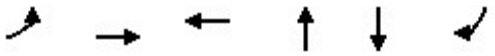
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	26	33	35	30	44	19	399	55	62	426	13
Future Volume (Veh/h)	7	26	33	35	30	44	19	399	55	62	426	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	28	35	37	32	47	20	424	59	66	453	14
Pedestrians					2			6				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			1				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1148	1117	466	1142	1094	456	467			485		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1148	1117	466	1142	1094	456	467			485		
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 %	95	85	94	73	84	92	98			94		
cM capacity (veh/h)	133	191	590	138	197	598	1094			1076		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	70	116	503	533
Volume Left	7	37	20	66
Volume Right	35	47	59	14
cSH	271	228	1094	1076
Volume to Capacity	0.26	0.51	0.02	0.06
Queue Length 95th (m)	8.1	21.0	0.4	1.6
Control Delay (s)	22.9	36.1	0.5	1.7
Lane LOS	C	E	A	A
Approach Delay (s)	22.9	36.1	0.5	1.7
Approach LOS	C	E		

Intersection Summary				
Average Delay	5.7			
Intersection Capacity Utilization	68.1%	ICU Level of Service	C	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	209	605	657	15	101	317
v/c Ratio	0.56	0.34	0.40	0.04	0.31	0.55
Control Delay	14.0	6.3	6.2	10.7	15.2	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	6.3	6.2	10.7	15.2	7.7
Queue Length 50th (m)	7.0	9.2	9.3	0.4	4.5	2.3
Queue Length 95th (m)	29.0	23.7	24.5	3.9	17.4	19.5
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	590	2790	2592	866	726	961
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.22	0.25	0.02	0.14	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	594	5	5	539	107	5	5	5	95	5	314
Future Volume (vph)	207	594	5	5	539	107	5	5	5	95	5	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1769	3534			3439			1749			1778	1563
Flt Permitted	0.40	1.00			0.95			0.90			0.73	1.00
Satd. Flow (perm)	749	3534			3271			1609			1352	1563
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	209	600	5	5	544	108	5	5	5	96	5	317
RTOR Reduction (vph)	0	1	0	0	29	0	0	4	0	0	0	199
Lane Group Flow (vph)	209	604	0	0	628	0	0	11	0	0	101	118
Confl. Peds. (#/hr)	1		3	3		1	1					1
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	18.1	18.1			18.1			8.8			8.8	8.8
Effective Green, g (s)	18.1	18.1			18.1			8.8			8.8	8.8
Actuated g/C Ratio	0.50	0.50			0.50			0.25			0.25	0.25
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	377	1781			1649			394			331	383
v/s Ratio Prot		0.17										
v/s Ratio Perm	c0.28				0.19			0.01			0.07	c0.08
v/c Ratio	0.55	0.34			0.38			0.03			0.31	0.31
Uniform Delay, d1	6.1	5.3			5.5			10.3			11.1	11.1
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	1.8	0.1			0.1			0.0			0.5	0.5
Delay (s)	7.9	5.4			5.6			10.3			11.6	11.5
Level of Service	A	A			A			B			B	B
Approach Delay (s)		6.1			5.6			10.3			11.5	
Approach LOS		A			A			B			B	

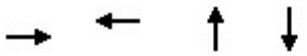
Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	35.9	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	166	893	0	0	650
Future Volume (Veh/h)	0	166	893	0	0	650
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	187	1003	0	0	730
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.67					
vC, conflicting volume	1733	1003			1003	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1846	1003			1003	
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	36			100	
cM capacity (veh/h)	55	294			690	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	187	1003	730
Volume Left	0	0	0
Volume Right	187	0	0
cSH	294	1700	1700
Volume to Capacity	0.64	0.59	0.43
Queue Length 95th (m)	32.3	0.0	0.0
Control Delay (s)	36.4	0.0	0.0
Lane LOS	E		
Approach Delay (s)	36.4	0.0	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	147	35	1175	1021
v/c Ratio	0.23	0.05	1.56	0.84
Control Delay	7.6	6.2	280.4	21.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.6	6.2	280.4	21.6
Queue Length 50th (m)	5.6	0.8	~99.1	42.6
Queue Length 95th (m)	14.7	4.9	#133.5	#76.2
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	646	667	752	1213
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.23	0.05	1.56	0.84

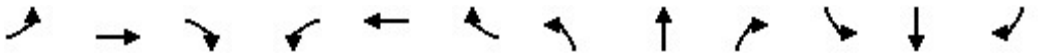
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	18	51	5	7	19	141	892	13	13	607	288
Future Volume (vph)	62	18	51	5	7	19	141	892	13	13	607	288
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.95	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1619			1574			3422			3280	
Flt Permitted		0.86			0.96			0.57			0.88	
Satd. Flow (perm)		1432			1530			1947			2894	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	70	20	57	6	8	21	158	1002	15	15	682	324
RTOR Reduction (vph)	0	33	0	0	12	0	0	2	0	0	98	0
Lane Group Flow (vph)	0	114	0	0	23	0	0	1173	0	0	923	0
Confl. Peds. (#/hr)	8		23	23		8	2		3	3		2
Heavy Vehicles (%)	4%	7%	7%	2%	2%	13%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			21.6			21.6	
Effective Green, g (s)		24.0			24.0			21.6			21.6	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		613			655			750			1116	
v/s Ratio Prot												
v/s Ratio Perm		c0.08			0.02			c0.60			0.32	
v/c Ratio		0.19			0.04			1.56			0.83	
Uniform Delay, d1		9.9			9.3			17.2			15.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.0			260.4			7.1	
Delay (s)		10.1			9.3			277.6			22.6	
Level of Service		B			A			F			C	
Approach Delay (s)		10.1			9.3			277.6			22.6	
Approach LOS		B			A			F			C	

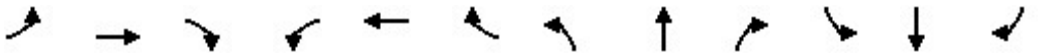
Intersection Summary			
HCM 2000 Control Delay	147.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	8	7	5	12	5	340	46	16	268	5
Future Volume (Veh/h)	5	5	8	7	5	12	5	340	46	16	268	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	6	9	8	6	14	6	395	53	19	312	6
Pedestrians		24			28			20			43	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			2			2			4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	870	865	359	846	842	492	342			476		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	870	865	359	846	842	492	342			476		
tC, single (s)	7.9	6.5	7.2	7.1	6.5	6.2	4.7			4.2		
tC, 2 stage (s)												
tF (s)	4.2	4.0	4.2	3.5	4.0	3.3	2.7			2.3		
p0 queue free %	97	98	98	97	98	97	99			98		
cM capacity (veh/h)	173	272	493	248	281	543	936			1036		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	21	28	454	337
Volume Left	6	8	6	19
Volume Right	9	14	53	6
cSH	280	353	936	1036
Volume to Capacity	0.07	0.08	0.01	0.02
Queue Length 95th (m)	1.9	2.1	0.2	0.4
Control Delay (s)	18.9	16.1	0.2	0.7
Lane LOS	C	C	A	A
Approach Delay (s)	18.9	16.1	0.2	0.7
Approach LOS	C	C		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	22	16	9	33	22	466	0	0	270	8
Future Volume (Veh/h)	8	0	22	16	9	33	22	466	0	0	270	8
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	8	0	23	17	9	34	23	485	0	0	281	8
Pedestrians		23			12			2			3	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	880	851	310	853	855	500	312			497		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	880	851	310	853	855	500	312			497		
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 %	97	100	97	93	97	94	98			100		
cM capacity (veh/h)	231	283	715	257	282	560	1208			1056		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	31	60	508	289
Volume Left	8	17	23	0
Volume Right	23	34	0	8
cSH	464	378	1208	1700
Volume to Capacity	0.07	0.16	0.02	0.17
Queue Length 95th (m)	1.7	4.5	0.5	0.0
Control Delay (s)	13.3	16.3	0.6	0.0
Lane LOS	B	C	A	
Approach Delay (s)	13.3	16.3	0.6	0.0
Approach LOS	B	C		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	54.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	74	865	0	0	1020
Future Volume (Veh/h)	0	74	865	0	0	1020
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	83	972	0	0	1146
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.63					
vC, conflicting volume	2118	972			972	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2484	972			972	
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	73			100	
cM capacity (veh/h)	20	306			709	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	83	972	1146
Volume Left	0	0	0
Volume Right	83	0	0
cSH	306	1700	1700
Volume to Capacity	0.27	0.57	0.67
Queue Length 95th (m)	8.6	0.0	0.0
Control Delay (s)	21.1	0.0	0.0
Lane LOS	C		
Approach Delay (s)	21.1	0.0	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	220	25	914	1264
v/c Ratio	0.51	0.06	0.60	0.66
Control Delay	26.1	14.0	12.9	12.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.1	14.0	12.9	12.8
Queue Length 50th (m)	26.0	1.2	46.7	64.5
Queue Length 95th (m)	48.2	7.0	65.0	86.6
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	431	451	1531	1911
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.06	0.60	0.66

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	32	76	5	5	15	61	824	11	18	948	273
Future Volume (vph)	107	32	76	5	5	15	61	824	11	18	948	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.97	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1678			1609			3488			3403	
Flt Permitted		0.83			0.95			0.74			0.94	
Satd. Flow (perm)		1429			1541			2595			3185	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	109	33	78	5	5	15	62	841	11	18	967	279
RTOR Reduction (vph)	0	24	0	0	11	0	0	1	0	0	31	0
Lane Group Flow (vph)	0	196	0	0	14	0	0	913	0	0	1233	0
Confl. Peds. (#/hr)	13		13	13		13	3		9	9		3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	3%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			49.6			49.6	
Effective Green, g (s)		24.0			24.0			49.6			49.6	
Actuated g/C Ratio		0.29			0.29			0.59			0.59	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		408			440			1532			1880	
v/s Ratio Prot												
v/s Ratio Perm		c0.14			0.01			0.35			c0.39	
v/c Ratio		0.48			0.03			0.60			0.66	
Uniform Delay, d1		24.8			21.6			10.9			11.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.1			0.0			1.7			1.8	
Delay (s)		25.9			21.7			12.6			13.3	
Level of Service		C			C			B			B	
Approach Delay (s)		25.9			21.7			12.6			13.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	93.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	11	5	33	5	301	22	16	383	5
Future Volume (Veh/h)	5	5	5	11	5	33	5	301	22	16	383	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	6	6	12	6	37	6	338	25	18	430	6
Pedestrians		31			24			22			24	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	926	899	486	886	890	398	467			387		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	926	899	486	886	890	398	467			387		
tC, single (s)	7.9	6.7	7.0	7.1	6.5	6.2	4.9			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.2	4.0	3.5	4.0	3.3	2.9			2.2		
p0 queue free %	96	98	99	95	98	94	99			98		
cM capacity (veh/h)	153	243	431	234	263	625	764			1148		

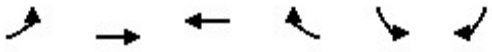
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	18	55	369	454
Volume Left	6	12	6	18
Volume Right	6	37	25	6
cSH	231	413	764	1148
Volume to Capacity	0.08	0.13	0.01	0.02
Queue Length 95th (m)	2.0	3.7	0.2	0.4
Control Delay (s)	21.9	15.1	0.3	0.5
Lane LOS	C	C	A	A
Approach Delay (s)	21.9	15.1	0.3	0.5
Approach LOS	C	C		

Intersection Summary				
Average Delay	1.7			
Intersection Capacity Utilization	45.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	0	60	36	14	29	19	378	0	0	509	16
Future Volume (Veh/h)	18	0	60	36	14	29	19	378	0	0	509	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	19	0	63	38	15	31	20	398	0	0	536	17
Pedestrians		13			5			4			4	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1038	1000	562	1054	1009	407	566			403		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1038	1000	562	1054	1009	407	566			403		
tC, single (s)	7.2	6.9	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	88	78	94	95	98			100		
cM capacity (veh/h)	178	202	519	173	232	635	995			1151		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	82	84	418	553
Volume Left	19	38	20	0
Volume Right	63	31	0	17
cSH	359	252	995	1700
Volume to Capacity	0.23	0.33	0.02	0.33
Queue Length 95th (m)	6.9	11.2	0.5	0.0
Control Delay (s)	18.0	26.3	0.6	0.0
Lane LOS	C	D	A	
Approach Delay (s)	18.0	26.3	0.6	0.0
Approach LOS	C	D		

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	894	600	48	18	34
Future Volume (Veh/h)	40	894	600	48	18	34
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	43	961	645	52	19	37
Pedestrians		17	1		13	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	710				1252	378
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	710				1252	378
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	95				87	94
cM capacity (veh/h)	850				148	590

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	43	480	480	430	267	56
Volume Left	43	0	0	0	0	19
Volume Right	0	0	0	0	52	37
cSH	850	1700	1700	1700	1700	293
Volume to Capacity	0.05	0.28	0.28	0.25	0.16	0.19
Queue Length 95th (m)	1.3	0.0	0.0	0.0	0.0	5.5
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	20.2
Lane LOS	A					C
Approach Delay (s)	0.4			0.0		20.2
Approach LOS						C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	787	64	99	539	39	151
Future Volume (Veh/h)	787	64	99	539	39	151
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	837	68	105	573	41	161
Pedestrians				1	4	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			909		1372	458
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			800		1286	325
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		68	75
cM capacity (veh/h)			763		126	632

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	558	347	105	286	286	41	161
Volume Left	0	0	105	0	0	41	0
Volume Right	0	68	0	0	0	0	161
cSH	1700	1700	763	1700	1700	126	632
Volume to Capacity	0.33	0.20	0.14	0.17	0.17	0.32	0.25
Queue Length 95th (m)	0.0	0.0	3.8	0.0	0.0	10.3	8.1
Control Delay (s)	0.0	0.0	10.5	0.0	0.0	46.6	12.6
Lane LOS			B			E	B
Approach Delay (s)	0.0		1.6			19.5	
Approach LOS						C	

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	409	741	6	669	180	178
v/c Ratio	0.63	0.33	0.03	0.71	0.50	0.39
Control Delay	14.5	6.4	22.5	27.7	31.0	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	6.4	22.5	27.7	31.0	7.7
Queue Length 50th (m)	21.8	18.3	0.6	41.2	22.4	0.6
Queue Length 95th (m)	70.0	42.6	3.8	75.5	45.1	15.9
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	766	2830	257	1252	665	684
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.26	0.02	0.53	0.27	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	711	0	6	529	113	0	0	0	173	5	166
Future Volume (vph)	393	711	0	6	529	113	0	0	0	173	5	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1769	3471		1762	3287					1770	1534	
Flt Permitted	0.20	1.00		0.37	1.00					0.95	1.00	
Satd. Flow (perm)	378	3471		687	3287					1770	1534	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	409	741	0	6	551	118	0	0	0	180	5	173
RTOR Reduction (vph)	0	0	0	0	20	0	0	0	0	0	137	0
Lane Group Flow (vph)	409	741	0	6	649	0	0	0	0	180	41	0
Confl. Peds. (#/hr)	6		7	7		6	6					6
Confl. Bikes (#/hr)			5									1
Heavy Vehicles (%)	2%	4%	2%	2%	6%	8%	2%	2%	2%	2%	2%	4%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	44.6	44.6		19.5	19.5					14.2	14.2	
Effective Green, g (s)	44.6	44.6		19.5	19.5					14.2	14.2	
Actuated g/C Ratio	0.65	0.65		0.28	0.28					0.21	0.21	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	651	2250		194	931					365	316	
v/s Ratio Prot	c0.18	0.21			0.20						0.03	
v/s Ratio Perm	c0.22			0.01						c0.10		
v/c Ratio	0.63	0.33		0.03	0.70					0.49	0.13	
Uniform Delay, d1	8.7	5.4		17.8	22.0					24.1	22.3	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	2.0	0.1		0.1	2.4					1.2	0.2	
Delay (s)	10.7	5.5		17.9	24.4					25.4	22.5	
Level of Service	B	A		B	C					C	C	
Approach Delay (s)		7.4			24.3			0.0			23.9	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	15.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	416	11	5	226	19	13
Future Volume (Veh/h)	416	11	5	226	19	13
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	489	13	6	266	22	15
Pedestrians	3			9	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			507		782	510
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			507		782	510
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		94	97
cM capacity (veh/h)			1053		360	558

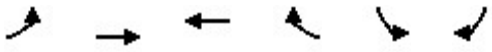
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	502	272	37
Volume Left	0	6	22
Volume Right	13	0	15
cSH	1700	1053	420
Volume to Capacity	0.30	0.01	0.09
Queue Length 95th (m)	0.0	0.1	2.3
Control Delay (s)	0.0	0.2	14.4
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	14.4
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	29	6	5	23	22	15	82	6	8	41	30
Future Volume (Veh/h)	36	29	6	5	23	22	15	82	6	8	41	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	38	31	6	5	24	23	16	87	6	9	44	32
Pedestrians		8			4			9			26	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	269	215	77	234	228	120	84			97		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	269	215	77	234	228	120	84			97		
tC, single (s)	7.1	6.6	6.2	7.1	6.6	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.1	3.3	2.2			2.3		
p0 queue free %	94	95	99	99	96	97	99			99		
cM capacity (veh/h)	614	654	970	668	640	908	1503			1420		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	75	52	109	85
Volume Left	38	5	16	9
Volume Right	6	23	6	32
cSH	650	740	1503	1420
Volume to Capacity	0.12	0.07	0.01	0.01
Queue Length 95th (m)	3.1	1.8	0.3	0.2
Control Delay (s)	11.3	10.2	1.2	0.8
Lane LOS	B	B	A	A
Approach Delay (s)	11.3	10.2	1.2	0.8
Approach LOS	B	B		

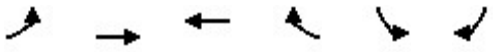
Intersection Summary			
Average Delay	4.9		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	106	393	224	21	33	70
Future Volume (Veh/h)	106	393	224	21	33	70
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	125	462	264	25	39	82
Pedestrians		3	9		4	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	1		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	293				1002	284
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293				1002	284
tC, single (s)	4.1				6.7	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.7	3.4
p0 queue free %	90				82	89
cM capacity (veh/h)	1253				217	739

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	587	289	121
Volume Left	125	0	39
Volume Right	0	25	82
cSH	1253	1700	416
Volume to Capacity	0.10	0.17	0.29
Queue Length 95th (m)	2.7	0.0	9.5
Control Delay (s)	2.6	0.0	17.2
Lane LOS	A		C
Approach Delay (s)	2.6	0.0	17.2
Approach LOS			C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	711	922	68	15	43
Future Volume (Veh/h)	30	711	922	68	15	43
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	31	741	960	71	16	45
Pedestrians		10	1		8	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1039				1437	534
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1039				1437	534
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				86	91
cM capacity (veh/h)	660				117	484

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	31	370	370	640	391	61
Volume Left	31	0	0	0	0	16
Volume Right	0	0	0	0	71	45
cSH	660	1700	1700	1700	1700	266
Volume to Capacity	0.05	0.22	0.22	0.38	0.23	0.23
Queue Length 95th (m)	1.2	0.0	0.0	0.0	0.0	6.9
Control Delay (s)	10.7	0.0	0.0	0.0	0.0	22.5
Lane LOS	B					C
Approach Delay (s)	0.4			0.0		22.5
Approach LOS						C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	626	86	148	797	37	131
Future Volume (Veh/h)	626	86	148	797	37	131
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	632	87	149	805	37	132
Pedestrians				1	11	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked						
vC, conflicting volume			730		1387	372
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			730		1387	372
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			83		66	79
cM capacity (veh/h)			862		110	620

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	421	298	149	402	402	37	132
Volume Left	0	0	149	0	0	37	0
Volume Right	0	87	0	0	0	0	132
cSH	1700	1700	862	1700	1700	110	620
Volume to Capacity	0.25	0.18	0.17	0.24	0.24	0.34	0.21
Queue Length 95th (m)	0.0	0.0	5.0	0.0	0.0	10.6	6.4
Control Delay (s)	0.0	0.0	10.0	0.0	0.0	53.6	12.4
Lane LOS			B			F	B
Approach Delay (s)	0.0		1.6			21.4	
Approach LOS						C	

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	276	648	7	973	154	276
v/c Ratio	0.57	0.28	0.03	0.78	0.44	0.52
Control Delay	15.8	5.9	17.3	25.1	30.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	5.9	17.3	25.1	30.3	7.8
Queue Length 50th (m)	14.1	14.8	0.6	57.6	19.1	0.6
Queue Length 95th (m)	50.8	36.3	3.9	104.0	39.1	19.1
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	566	2864	362	1660	664	757
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.23	0.02	0.59	0.23	0.36

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	629	0	7	755	189	0	0	0	149	5	263
Future Volume (vph)	268	629	0	7	755	189	0	0	0	149	5	263
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1752	3539		1766	3414					1770	1567	
Flt Permitted	0.13	1.00		0.41	1.00					0.95	1.00	
Satd. Flow (perm)	246	3539		754	3414					1770	1567	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	276	648	0	7	778	195	0	0	0	154	5	271
RTOR Reduction (vph)	0	0	0	0	24	0	0	0	0	0	216	0
Lane Group Flow (vph)	276	648	0	7	949	0	0	0	0	154	60	0
Confl. Peds. (#/hr)	1		3	3		1	1					1
Confl. Bikes (#/hr)			1			5						1
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	45.1	45.1		25.0	25.0					13.9	13.9	
Effective Green, g (s)	45.1	45.1		25.0	25.0					13.9	13.9	
Actuated g/C Ratio	0.65	0.65		0.36	0.36					0.20	0.20	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	490	2313		273	1236					356	315	
v/s Ratio Prot	c0.12	0.18			c0.28						0.04	
v/s Ratio Perm	0.24			0.01						c0.09		
v/c Ratio	0.56	0.28		0.03	0.77					0.43	0.19	
Uniform Delay, d1	10.4	5.1		14.2	19.4					24.1	22.9	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	1.6	0.1		0.0	3.0					1.0	0.3	
Delay (s)	12.0	5.1		14.2	22.4					25.1	23.2	
Level of Service	B	A		B	C					C	C	
Approach Delay (s)		7.2			22.4			0.0			23.9	
Approach LOS		A			C			A			C	

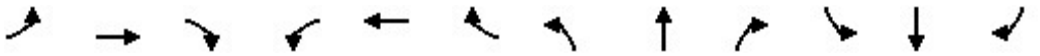
Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	71.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	281	16	7	344	19	21
Future Volume (Veh/h)	281	16	7	344	19	21
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	309	18	8	378	21	23
Pedestrians	1			5	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			332		718	328
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			332		718	328
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		95	97
cM capacity (veh/h)			1222		392	708

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	327	386	44
Volume Left	0	8	21
Volume Right	18	0	23
cSH	1700	1222	511
Volume to Capacity	0.19	0.01	0.09
Queue Length 95th (m)	0.0	0.2	2.2
Control Delay (s)	0.0	0.2	12.7
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	12.7
Approach LOS			B

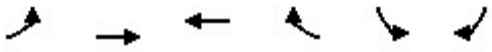
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	34	13	18	34	34	19	74	13	8	126	34
Future Volume (Veh/h)	44	34	13	18	34	34	19	74	13	8	126	34
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	48	37	14	20	37	37	21	80	14	9	137	37
Pedestrians		6			3			6			19	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	383	318	168	344	330	109	180			97		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	383	318	168	344	330	109	180			97		
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 %	90	94	98	96	94	96	98			99		
cM capacity (veh/h)	498	581	868	555	572	927	1389			1493		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	99	94	115	183
Volume Left	48	20	21	9
Volume Right	14	37	14	37
cSH	562	669	1389	1493
Volume to Capacity	0.18	0.14	0.02	0.01
Queue Length 95th (m)	5.1	3.9	0.4	0.1
Control Delay (s)	12.8	11.3	1.5	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	12.8	11.3	1.5	0.4
Approach LOS	B	B		

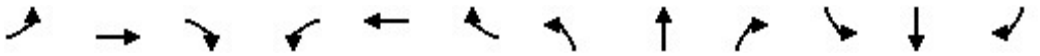
Intersection Summary				
Average Delay	5.2			
Intersection Capacity Utilization	29.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	273	329	34	25	126
Future Volume (Veh/h)	46	273	329	34	25	126
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	51	300	362	37	27	138
Pedestrians		1	5		1	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	400				788	382
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	400				788	382
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	96				92	79
cM capacity (veh/h)	1158				336	661

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	351	399	165
Volume Left	51	0	27
Volume Right	0	37	138
cSH	1158	1700	571
Volume to Capacity	0.04	0.23	0.29
Queue Length 95th (m)	1.1	0.0	9.5
Control Delay (s)	1.6	0.0	13.8
Lane LOS	A		B
Approach Delay (s)	1.6	0.0	13.8
Approach LOS			B

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	5	11	5	5	12	21	508	5	6	265	42
Future Volume (Veh/h)	39	5	11	5	5	12	21	508	5	6	265	42
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	43	5	12	5	5	13	23	558	5	7	291	46
Pedestrians		3			4							
Lane Width (m)		3.6			3.6							
Walking Speed (m/s)		1.2			1.2							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	950	944	317	930	964	564	340			567		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	950	944	317	930	964	564	340			567		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	80	98	98	98	98	98	98			99		
cM capacity (veh/h)	215	254	701	233	247	523	1168			1002		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	60	23	23	563	7	337
Volume Left	43	5	23	0	7	0
Volume Right	12	13	0	5	0	46
cSH	253	346	1168	1700	1002	1700
Volume to Capacity	0.24	0.07	0.02	0.33	0.01	0.20
Queue Length 95th (m)	7.2	1.7	0.5	0.0	0.2	0.0
Control Delay (s)	23.6	16.1	8.1	0.0	8.6	0.0
Lane LOS	C	C	A		A	
Approach Delay (s)	23.6	16.1	0.3		0.2	
Approach LOS	C	C				

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	41.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	5	35	5	7	5	147	463	5	5	190	71
Future Volume (Veh/h)	55	5	35	5	7	5	147	463	5	5	190	71
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	61	6	39	6	8	6	163	514	6	6	211	79
Pedestrians		2			6			5				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	858	1116	152	1014	1153	266	292			526		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	858	1116	152	1014	1153	266	292			526		
tC, single (s)	8.0	6.5	7.2	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	67	97	95	96	95	99	87			99		
cM capacity (veh/h)	187	177	828	159	169	729	1264			1032		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	106	20	163	343	177	6	141	149
Volume Left	61	6	163	0	0	6	0	0
Volume Right	39	6	0	0	6	0	0	79
cSH	260	215	1264	1700	1700	1032	1700	1700
Volume to Capacity	0.41	0.09	0.13	0.20	0.10	0.01	0.08	0.09
Queue Length 95th (m)	15.1	2.4	3.5	0.0	0.0	0.1	0.0	0.0
Control Delay (s)	28.1	23.5	8.3	0.0	0.0	8.5	0.0	0.0
Lane LOS	D	C	A			A		
Approach Delay (s)	28.1	23.5	2.0			0.2		
Approach LOS	D	C						

Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	37.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	184	586	78	79	346
Future Volume (Veh/h)	53	184	586	78	79	346
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	58	200	637	85	86	376
Pedestrians	2					6
Lane Width (m)	3.6					3.6
Walking Speed (m/s)	1.2					1.2
Percent Blockage	0					1
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1230	688			724	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1230	688			724	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	67	54			90	
cM capacity (veh/h)	175	439			877	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	258	722	86	376
Volume Left	58	0	86	0
Volume Right	200	85	0	0
cSH	566	1700	877	1700
Volume to Capacity	0.46	0.42	0.10	0.22
Queue Length 95th (m)	18.9	0.0	2.6	0.0
Control Delay (s)	23.4	0.0	9.6	0.0
Lane LOS	C		A	
Approach Delay (s)	23.4	0.0	1.8	
Approach LOS	C			

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	58	200	722	86	376
v/c Ratio	0.17	0.44	0.60	0.23	0.31
Control Delay	16.0	7.0	7.9	6.3	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	7.0	7.9	6.3	5.1
Queue Length 50th (m)	2.8	0.0	24.8	2.2	10.2
Queue Length 95th (m)	12.7	13.6	62.6	8.9	25.4
Internal Link Dist (m)	139.7		129.3		141.4
Turn Bay Length (m)		30.0		25.0	
Base Capacity (vph)	870	849	1613	493	1642
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.24	0.45	0.17	0.23

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	53	184	586	78	79	346
Future Volume (vph)	53	184	586	78	79	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		0%			0%
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1762	1520	1828		1768	1863
Flt Permitted	0.95	1.00	1.00		0.30	1.00
Satd. Flow (perm)	1762	1520	1828		561	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	200	637	85	86	376
RTOR Reduction (vph)	0	170	7	0	0	0
Lane Group Flow (vph)	58	30	715	0	86	376
Confl. Peds. (#/hr)		6		2	2	
Heavy Vehicles (%)	4%	5%	2%	2%	2%	2%
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	5.9	5.9	23.9		23.9	23.9
Effective Green, g (s)	5.9	5.9	23.9		23.9	23.9
Actuated g/C Ratio	0.15	0.15	0.62		0.62	0.62
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	267	231	1126		345	1147
v/s Ratio Prot	c0.03		c0.39			0.20
v/s Ratio Perm		0.02			0.15	
v/c Ratio	0.22	0.13	0.64		0.25	0.33
Uniform Delay, d1	14.4	14.2	4.7		3.4	3.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4	0.3	1.2		0.4	0.2
Delay (s)	14.8	14.5	5.9		3.8	3.8
Level of Service	B	B	A		A	A
Approach Delay (s)	14.6		5.9			3.8
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	6.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	38.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	5	39	5	5	13	25	389	5	8	438	14
Future Volume (Veh/h)	92	5	39	5	5	13	25	389	5	8	438	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
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 (vph)	100	5	42	5	5	14	27	423	5	9	476	15
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	996	984	484	1018	990	426	492			428		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	996	984	484	1018	990	426	492			428		
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 %	52	98	93	97	98	98	97			99		
cM capacity (veh/h)	209	240	580	192	239	629	1071			1131		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	147	24	27	428	9	491
Volume Left	100	5	27	0	9	0
Volume Right	42	14	0	5	0	15
cSH	257	347	1071	1700	1131	1700
Volume to Capacity	0.57	0.07	0.03	0.25	0.01	0.29
Queue Length 95th (m)	25.9	1.8	0.6	0.0	0.2	0.0
Control Delay (s)	36.1	16.2	8.4	0.0	8.2	0.0
Lane LOS	E	C	A		A	
Approach Delay (s)	36.1	16.2	0.5		0.1	
Approach LOS	E	C				

Intersection Summary				
Average Delay	5.3			
Intersection Capacity Utilization	45.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	11	217	7	5	8	78	285	5	16	393	54
Future Volume (Veh/h)	104	11	217	7	5	8	78	285	5	16	393	54
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	114	12	238	8	5	9	86	313	5	18	432	59
Pedestrians					2			3				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	838	990	248	988	1016	161	491			320		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	838	990	248	988	1016	161	491			320		
tC, single (s)	7.6	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 %	51	95	68	93	98	99	92			99		
cM capacity (veh/h)	231	222	750	122	215	854	1069			1235		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	364	22	86	209	109	18	288	203
Volume Left	114	8	86	0	0	18	0	0
Volume Right	238	9	0	0	5	0	0	59
cSH	420	221	1069	1700	1700	1235	1700	1700
Volume to Capacity	0.87	0.10	0.08	0.12	0.06	0.01	0.17	0.12
Queue Length 95th (m)	69.4	2.6	2.1	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	48.6	23.1	8.7	0.0	0.0	8.0	0.0	0.0
Lane LOS	E	C	A			A		
Approach Delay (s)	48.6	23.1	1.8			0.3		
Approach LOS	E	C						

Intersection Summary				
Average Delay	14.7			
Intersection Capacity Utilization	51.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	39	165	571	96	215	773
Future Volume (Veh/h)	39	165	571	96	215	773
Sign Control	Stop		Free			Free
Grade	-3%		0%			0%
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	43	181	627	105	236	849
Pedestrians						2
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						0
Right turn flare (veh)		4				
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	2000	682			732	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2000	682			732	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	11	60			73	
cM capacity (veh/h)	48	450			873	

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	224	732	236	849
Volume Left	43	0	236	0
Volume Right	181	105	0	0
cSH	251	1700	873	1700
Volume to Capacity	0.89	0.43	0.27	0.50
Queue Length 95th (m)	61.1	0.0	8.8	0.0
Control Delay (s)	59.1	0.0	10.6	0.0
Lane LOS	F		B	
Approach Delay (s)	59.1	0.0	2.3	
Approach LOS	F			

Intersection Summary			
Average Delay	7.7		
Intersection Capacity Utilization	61.8%	ICU Level of Service	B
Analysis Period (min)	15		



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	43	181	732	236	849
v/c Ratio	0.17	0.48	0.58	0.59	0.67
Control Delay	23.5	9.5	6.5	12.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	9.5	6.5	12.0	8.1
Queue Length 50th (m)	3.5	0.0	25.3	8.6	34.1
Queue Length 95th (m)	12.3	14.9	60.5	34.2	80.9
Internal Link Dist (m)	139.7		129.3		141.4
Turn Bay Length (m)		30.0		25.0	
Base Capacity (vph)	634	671	1546	495	1573
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.27	0.47	0.48	0.54

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	39	165	571	96	215	773
Future Volume (vph)	39	165	571	96	215	773
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		0%			0%
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1796	1570	1827		1770	1863
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1796	1570	1827		587	1863
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	43	181	627	105	236	849
RTOR Reduction (vph)	0	156	7	0	0	0
Lane Group Flow (vph)	43	25	725	0	236	849
Confl. Peds. (#/hr)		2				
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	7.2	7.2	35.6		35.6	35.6
Effective Green, g (s)	7.2	7.2	35.6		35.6	35.6
Actuated g/C Ratio	0.14	0.14	0.69		0.69	0.69
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	249	218	1255		403	1280
v/s Ratio Prot	c0.02		0.40			c0.46
v/s Ratio Perm		0.02			0.40	
v/c Ratio	0.17	0.12	0.58		0.59	0.66
Uniform Delay, d1	19.7	19.5	4.2		4.2	4.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	0.2	0.6		2.2	1.3
Delay (s)	20.0	19.8	4.9		6.4	6.0
Level of Service	C	B	A		A	A
Approach Delay (s)	19.8		4.9			6.1
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	7.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	51.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	369	7	20	295	5	57
Future Volume (Veh/h)	369	7	20	295	5	57
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	424	8	23	339	6	66
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			432		813	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			432		813	428
tC, single (s)			4.3		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.3
p0 queue free %			98		98	89
cM capacity (veh/h)			1047		340	623

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	432	362	72
Volume Left	0	23	6
Volume Right	8	0	66
cSH	1700	1047	582
Volume to Capacity	0.25	0.02	0.12
Queue Length 95th (m)	0.0	0.5	3.4
Control Delay (s)	0.0	0.8	12.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	12.1
Approach LOS			B

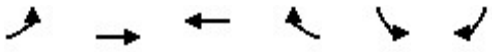
Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	67	54	189	222	8
Future Volume (Veh/h)	9	67	54	189	222	8
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	79	64	222	261	9
Pedestrians	14			6		
Lane Width (m)	3.6			3.6		
Walking Speed (m/s)	1.2			1.2		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	630	286	284			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	630	286	284			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	97	89	95			
cM capacity (veh/h)	385	741	1252			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	90	286	270
Volume Left	11	64	0
Volume Right	79	0	9
cSH	665	1252	1700
Volume to Capacity	0.14	0.05	0.16
Queue Length 95th (m)	3.7	1.3	0.0
Control Delay (s)	11.3	2.2	0.0
Lane LOS	B	A	
Approach Delay (s)	11.3	2.2	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	113	39	28	49	14
Future Volume (Veh/h)	58	113	39	28	49	14
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	68	133	46	33	58	16
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	79				332	62
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	79				332	62
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				91	98
cM capacity (veh/h)	1519				634	1002

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	201	79	74
Volume Left	68	0	58
Volume Right	0	33	16
cSH	1519	1700	689
Volume to Capacity	0.04	0.05	0.11
Queue Length 95th (m)	1.1	0.0	2.9
Control Delay (s)	2.8	0.0	10.9
Lane LOS	A		B
Approach Delay (s)	2.8	0.0	10.9
Approach LOS			B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	330	6	64	476	11	44
Future Volume (Veh/h)	330	6	64	476	11	44
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	388	7	75	560	13	52
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			395		1102	392
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			395		1102	392
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		94	92
cM capacity (veh/h)			1164		219	655

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	395	635	65
Volume Left	0	75	13
Volume Right	7	0	52
cSH	1700	1164	469
Volume to Capacity	0.23	0.06	0.14
Queue Length 95th (m)	0.0	1.7	3.8
Control Delay (s)	0.0	1.7	13.9
Lane LOS		A	B
Approach Delay (s)	0.0	1.7	13.9
Approach LOS			B

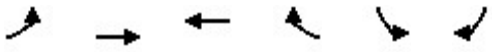
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	59.7%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	36	36	140	128	5
Future Volume (Veh/h)	8	36	36	140	128	5
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	42	42	165	151	6
Pedestrians	6			5	1	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	410	165	163			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	410	165	163			
tC, single (s)	6.6	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	98	95	97			
cM capacity (veh/h)	554	871	1409			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	51	207	157
Volume Left	9	42	0
Volume Right	42	0	6
cSH	791	1409	1700
Volume to Capacity	0.06	0.03	0.09
Queue Length 95th (m)	1.6	0.7	0.0
Control Delay (s)	9.9	1.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.9	1.7	0.0
Approach LOS	A		

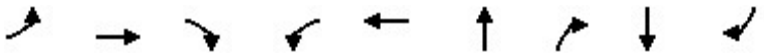
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	32.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	70	99	41	43	67
Future Volume (Veh/h)	20	70	99	41	43	67
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	22	79	111	46	48	75
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	157				257	134
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	157				257	134
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	98				93	92
cM capacity (veh/h)	1399				719	915

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	101	157	123
Volume Left	22	0	48
Volume Right	0	46	75
cSH	1399	1700	827
Volume to Capacity	0.02	0.09	0.15
Queue Length 95th (m)	0.4	0.0	4.2
Control Delay (s)	1.8	0.0	10.1
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	10.1
Approach LOS			B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

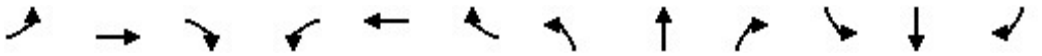


Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	520	158	567	223	111	723	26	6
v/c Ratio	0.02	0.89	0.29	0.98	0.18	0.38	0.94	0.07	0.01
Control Delay	22.8	49.4	9.4	59.4	7.3	34.5	31.2	28.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	49.4	9.4	59.4	7.3	34.5	31.2	28.6	0.0
Queue Length 50th (m)	0.8	97.8	5.6	~109.0	16.7	18.4	36.4	4.0	0.0
Queue Length 95th (m)	3.6	#148.8	19.3	#169.6	26.1	33.7	#112.3	10.6	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	418	675	612	581	1304	354	812	423	513
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.77	0.26	0.98	0.17	0.31	0.89	0.06	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

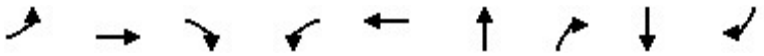
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	458	139	499	191	5	92	5	636	15	8	5
Future Volume (vph)	5	458	139	499	191	5	92	5	636	15	8	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.96		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1483	1752	1854			1649	1463		1724	1607
Flt Permitted	0.62	1.00	1.00	0.12	1.00			0.72	1.00		0.83	1.00
Satd. Flow (perm)	1153	1863	1483	218	1854			1241	1463		1485	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	520	158	567	217	6	105	6	723	17	9	6
RTOR Reduction (vph)	0	0	81	0	1	0	0	0	423	0	0	5
Lane Group Flow (vph)	6	520	77	567	222	0	0	111	300	0	26	1
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	29.2	29.2	29.2	60.6	60.6			21.7	21.7		21.7	21.7
Effective Green, g (s)	29.2	29.2	29.2	60.6	60.6			21.7	21.7		21.7	21.7
Actuated g/C Ratio	0.32	0.32	0.32	0.66	0.66			0.24	0.24		0.24	0.24
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	364	589	469	581	1217			291	343		349	377
v/s Ratio Prot		0.28		c0.28	0.12							
v/s Ratio Perm	0.01		0.05	c0.36				0.09	c0.21		0.02	0.00
v/c Ratio	0.02	0.88	0.16	0.98	0.18			0.38	0.87		0.07	0.00
Uniform Delay, d1	21.7	29.9	22.8	25.6	6.2			29.7	34.0		27.5	27.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	14.9	0.2	31.1	0.1			1.0	21.5		0.1	0.0
Delay (s)	21.7	44.8	23.0	56.7	6.3			30.6	55.5		27.6	27.0
Level of Service	C	D	C	E	A			C	E		C	C
Approach Delay (s)		39.6			42.5			52.2			27.5	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	44.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	92.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

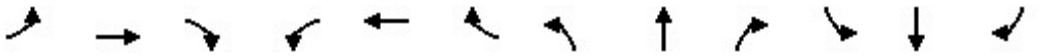
c Critical Lane Group



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	6	520	158	567	223	111	723	26	6
v/c Ratio	0.02	0.86	0.29	0.76	0.20	0.32	0.90	0.06	0.01
Control Delay	30.6	48.9	16.6	42.5	12.1	26.0	23.5	21.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	48.9	16.6	42.5	12.1	26.0	23.5	21.4	0.0
Queue Length 50th (m)	0.8	89.0	9.3	48.6	16.4	15.7	36.9	3.4	0.0
Queue Length 95th (m)	4.8	#214.7	33.0	#94.7	47.8	28.3	84.2	8.8	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	373	603	544	904	1201	779	1145	935	1027
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.86	0.29	0.63	0.19	0.14	0.63	0.03	0.01

Intersection Summary

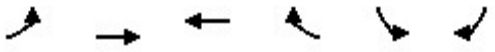
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	458	139	499	191	5	92	5	636	15	8	5
Future Volume (vph)	5	458	139	499	191	5	92	5	636	15	8	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00			1.00	1.00		0.99	1.00
Frt	1.00	1.00	0.85	1.00	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		0.97	1.00
Satd. Flow (prot)	1770	1863	1505	3400	1854			1649	1521		1725	1607
Flt Permitted	0.62	1.00	1.00	0.95	1.00			0.72	1.00		0.84	1.00
Satd. Flow (perm)	1153	1863	1505	3400	1854			1246	1521		1504	1607
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	6	520	158	567	217	6	105	6	723	17	9	6
RTOR Reduction (vph)	0	0	58	0	1	0	0	0	372	0	0	4
Lane Group Flow (vph)	6	520	100	567	222	0	0	111	351	0	26	2
Confl. Peds. (#/hr)			7	7					8	8		
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	2%	2%	5%	3%	2%	2%	7%	2%	3%	2%	17%	2%
Turn Type	Perm	NA	Perm	Prot	NA		Perm	NA	Prot	Perm	NA	Perm
Protected Phases		2		1	6			8	8		4	
Permitted Phases	2		2				8			4		4
Actuated Green, G (s)	29.4	29.4	29.4	19.9	54.3			25.5	25.5		25.5	25.5
Effective Green, g (s)	29.4	29.4	29.4	19.9	54.3			25.5	25.5		25.5	25.5
Actuated g/C Ratio	0.33	0.33	0.33	0.22	0.60			0.28	0.28		0.28	0.28
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	377	609	492	753	1121			353	431		427	456
v/s Ratio Prot		c0.28		c0.17	0.12				c0.23			
v/s Ratio Perm	0.01		0.07					0.09			0.02	0.00
v/c Ratio	0.02	0.85	0.20	0.75	0.20			0.31	0.81		0.06	0.00
Uniform Delay, d1	20.4	28.2	21.8	32.7	8.0			25.3	29.9		23.4	23.0
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.0	11.5	0.2	4.4	0.1			0.6	11.5		0.1	0.0
Delay (s)	20.4	39.7	22.0	37.1	8.1			25.9	41.4		23.5	23.0
Level of Service	C	D	C	D	A			C	D		C	C
Approach Delay (s)		35.4			28.9			39.4			23.4	
Approach LOS		D			C			D			C	

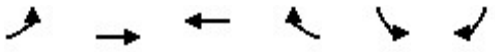
Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	860	409	227	128	241	520
v/c Ratio	0.74	0.33	0.49	0.27	0.63	0.27
Control Delay	28.6	7.4	32.9	10.0	38.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	7.4	32.9	10.0	38.5	0.9
Queue Length 50th (m)	62.0	25.6	32.4	2.3	36.1	0.0
Queue Length 95th (m)	98.7	50.0	64.6	17.7	68.1	5.6
Internal Link Dist (m)		75.2	323.0		126.1	
Turn Bay Length (m)	75.0			25.0	75.0	75.0
Base Capacity (vph)	1516	1499	543	529	547	2114
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.27	0.42	0.24	0.44	0.25

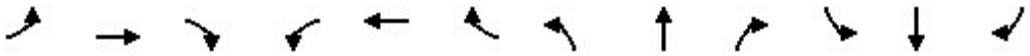
Intersection Summary



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	800	380	211	119	224	484
Future Volume (vph)	800	380	211	119	224	484
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00
Flpb, ped/bikes	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)	3400	1863	1827	1523	1770	2733
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1863	1827	1523	1770	2733
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	860	409	227	128	241	520
RTOR Reduction (vph)	0	0	0	82	0	197
Lane Group Flow (vph)	860	409	227	46	241	323
Confl. Peds. (#/hr)	6			6	6	2
Heavy Vehicles (%)	3%	2%	4%	4%	2%	4%
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	5	2	6		4	4 5
Permitted Phases				6		
Actuated Green, G (s)	28.3	54.5	21.2	21.2	17.8	51.1
Effective Green, g (s)	28.3	54.5	21.2	21.2	17.8	51.1
Actuated g/C Ratio	0.34	0.66	0.26	0.26	0.22	0.62
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	1169	1233	470	392	382	1696
v/s Ratio Prot	c0.25	0.22	c0.12		c0.14	0.12
v/s Ratio Perm				0.03		
v/c Ratio	0.74	0.33	0.48	0.12	0.63	0.19
Uniform Delay, d1	23.7	6.0	25.9	23.4	29.3	6.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.2	0.9	0.2	3.5	0.1
Delay (s)	26.2	6.2	26.8	23.6	32.8	6.8
Level of Service	C	A	C	C	C	A
Approach Delay (s)		19.8	25.6		15.0	
Approach LOS		B	C		B	

Intersection Summary			
HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	82.3	Sum of lost time (s)	15.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	5	9	17	5	8	16	780	22	9	651	18
Future Volume (Veh/h)	8	5	9	17	5	8	16	780	22	9	651	18
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	6	11	20	6	9	19	918	26	11	766	21
Pedestrians		3			20						19	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			2						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1802	1804	396	1408	1801	970	790			964		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1802	1804	396	1408	1801	970	790			964		
tC, single (s)	7.5	6.5	7.2	7.5	6.5	7.2	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.5	2.3			2.2		
p0 queue free %	79	92	98	77	92	96	98			98		
cM capacity (veh/h)	42	74	569	85	74	220	786			698		

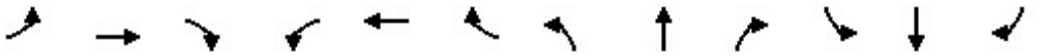
Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	26	35	963	394	404
Volume Left	9	20	19	11	0
Volume Right	11	9	26	0	21
cSH	83	98	786	698	1700
Volume to Capacity	0.31	0.36	0.02	0.02	0.24
Queue Length 95th (m)	9.4	11.3	0.6	0.4	0.0
Control Delay (s)	67.1	60.6	0.7	0.5	0.0
Lane LOS	F	F	A	A	
Approach Delay (s)	67.1	60.6	0.7	0.2	
Approach LOS	F	F			

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	70.0%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	247	17	34	315	48	9	26	30	12	28	104
Future Volume (Veh/h)	41	247	17	34	315	48	9	26	30	12	28	104
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	47	281	19	39	358	55	10	30	34	14	32	118
Pedestrians		11			14			15			7	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	420			315			922	898	320	908	880	404
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	420			315			922	898	320	908	880	404
tC, single (s)	4.1			4.1			7.2	6.5	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.0	3.4	3.5	4.0	3.3
p0 queue free %	96			97			94	88	95	93	88	81
cM capacity (veh/h)	1132			1230			161	254	680	203	261	637

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	47	300	39	413	74	164
Volume Left	47	0	39	0	10	14
Volume Right	0	19	0	55	34	118
cSH	1132	1700	1230	1700	322	866
Volume to Capacity	0.04	0.18	0.03	0.24	0.23	0.19
Queue Length 95th (m)	1.0	0.0	0.8	0.0	7.0	5.6
Control Delay (s)	8.3	0.0	8.0	0.0	19.5	15.1
Lane LOS	A		A		C	C
Approach Delay (s)	1.1		0.7		19.5	15.1
Approach LOS					C	C

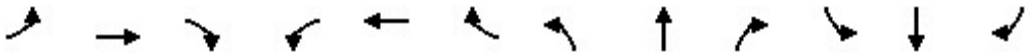
Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	178	30	73	249	20	24	55	51	15	30	15
Future Volume (Veh/h)	28	178	30	73	249	20	24	55	51	15	30	15
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	33	209	35	86	293	24	28	65	60	18	35	18
Pedestrians		11			8			21			20	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	337			265			825	822	256	872	828	336
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	337			265			825	822	256	872	828	336
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	97			93			88	76	92	90	87	97
cM capacity (veh/h)	1202			1276			226	271	762	175	269	688

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	33	244	86	317	153	71
Volume Left	33	0	86	0	28	18
Volume Right	0	35	0	24	60	18
cSH	1202	1700	1276	1700	345	274
Volume to Capacity	0.03	0.14	0.07	0.19	0.44	0.26
Queue Length 95th (m)	0.7	0.0	1.7	0.0	17.5	8.1
Control Delay (s)	8.1	0.0	8.0	0.0	23.5	22.7
Lane LOS	A		A		C	C
Approach Delay (s)	1.0		1.7		23.5	22.7
Approach LOS					C	C

Intersection Summary				
Average Delay	6.8			
Intersection Capacity Utilization	38.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	63	16	167	7	31	7	287	186	12	8	175	37
Future Volume (vph)	63	16	167	7	31	7	287	186	12	8	175	37
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	74	19	196	8	36	8	338	219	14	9	206	44

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	289	52	571	259
Volume Left (vph)	74	8	338	9
Volume Right (vph)	196	8	14	44
Hadj (s)	-0.28	0.02	0.14	-0.06
Departure Headway (s)	6.1	7.1	5.6	6.0
Degree Utilization, x	0.49	0.10	0.89	0.43
Capacity (veh/h)	562	452	622	573
Control Delay (s)	14.8	10.9	37.9	13.4
Approach Delay (s)	14.8	10.9	37.9	13.4
Approach LOS	B	B	E	B

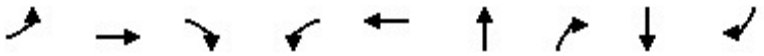
Intersection Summary			
Delay	25.6		
Level of Service	D		
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	24.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	16	167	7	31	7	287	186	12	8	175	37
Future Vol, veh/h	63	16	167	7	31	7	287	186	12	8	175	37
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles, %	4	8	4	2	2	20	2	2	2	2	2	2
Mvmt Flow	74	19	196	8	36	8	338	219	14	9	206	44
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.6	10.8	36	13.2
HCM LOS	B	B	E	B

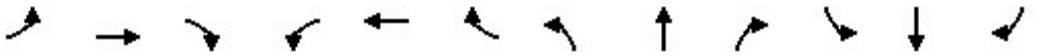
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	59%	26%	16%	4%
Vol Thru, %	38%	7%	69%	80%
Vol Right, %	2%	68%	16%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	485	246	45	220
LT Vol	287	63	7	8
Through Vol	186	16	31	175
RT Vol	12	167	7	37
Lane Flow Rate	571	289	53	259
Geometry Grp	1	1	1	1
Degree of Util (X)	0.88	0.481	0.103	0.421
Departure Headway (Hd)	5.553	5.985	7.009	5.851
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	650	596	515	608
Service Time	3.628	4.08	5.009	3.949
HCM Lane V/C Ratio	0.878	0.485	0.103	0.426
HCM Control Delay	36	14.6	10.8	13.2
HCM Lane LOS	E	B	B	B
HCM 95th-tile Q	10.5	2.6	0.3	2.1



Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	8	294	147	798	489	166	550	89	27
v/c Ratio	0.04	0.72	0.33	0.92	0.38	0.71	0.75	0.25	0.07
Control Delay	31.6	45.4	7.9	33.3	7.1	52.9	10.5	34.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	45.4	7.9	33.3	7.1	52.9	10.5	34.6	0.4
Queue Length 50th (m)	1.3	55.1	0.0	109.9	35.3	30.9	0.0	15.0	0.0
Queue Length 95th (m)	5.3	#87.9	15.9	#197.8	53.6	#58.4	33.2	29.2	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	230	476	498	963	1453	295	780	446	449
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.62	0.30	0.83	0.34	0.56	0.71	0.20	0.06

Intersection Summary

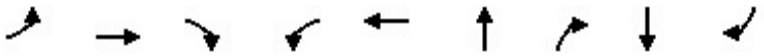
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	265	132	718	435	5	144	5	495	7	73	24
Future Volume (vph)	7	265	132	718	435	5	144	5	495	7	73	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1525	1769	1859			1724	1495		1881	1607
Flt Permitted	0.49	1.00	1.00	0.26	1.00			0.67	1.00		0.97	1.00
Satd. Flow (perm)	904	1863	1525	493	1859			1210	1495		1833	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	294	147	798	483	6	160	6	550	8	81	27
RTOR Reduction (vph)	0	0	114	0	0	0	0	0	443	0	0	22
Lane Group Flow (vph)	8	294	33	798	489	0	0	166	107	0	89	5
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8		8	4		4
Actuated Green, G (s)	19.7	19.7	19.7	61.3	61.3			17.2	17.2		17.2	17.2
Effective Green, g (s)	19.7	19.7	19.7	61.3	61.3			17.2	17.2		17.2	17.2
Actuated g/C Ratio	0.22	0.22	0.22	0.69	0.69			0.19	0.19		0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	201	414	339	869	1287			235	290		356	312
v/s Ratio Prot		0.16		c0.38	0.26							
v/s Ratio Perm	0.01		0.02	c0.26				c0.14	0.07		0.05	0.00
v/c Ratio	0.04	0.71	0.10	0.92	0.38			0.71	0.37		0.25	0.02
Uniform Delay, d1	27.0	31.8	27.3	15.8	5.7			33.3	30.9		30.2	28.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	5.9	0.1	14.6	0.2			9.6	0.9		0.4	0.0
Delay (s)	27.1	37.6	27.5	30.4	5.9			42.9	31.9		30.6	28.8
Level of Service	C	D	C	C	A			D	C		C	C
Approach Delay (s)		34.1			21.1			34.4			30.2	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	88.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



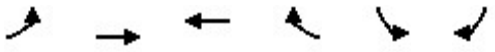
Lane Group	EBL	EBT	EBR	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	8	294	147	798	489	166	550	89	27
v/c Ratio	0.03	0.62	0.29	0.77	0.42	0.60	0.72	0.21	0.06
Control Delay	25.0	32.9	6.7	29.7	8.8	36.2	8.6	25.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	32.9	6.7	29.7	8.8	36.2	8.6	25.4	0.3
Queue Length 50th (m)	0.9	38.3	0.0	51.9	31.0	21.4	0.0	10.4	0.0
Queue Length 95th (m)	4.7	74.8	14.4	89.8	63.9	45.6	27.6	24.2	0.0
Internal Link Dist (m)		109.7			107.6	111.0		93.7	
Turn Bay Length (m)	30.0		50.0	50.0			25.0		25.0
Base Capacity (vph)	296	611	604	1322	1445	432	887	654	627
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.48	0.24	0.60	0.34	0.38	0.62	0.14	0.04

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	265	132	718	435	5	144	5	495	7	73	24
Future Volume (vph)	7	265	132	718	435	5	144	5	495	7	73	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			6%			-3%	
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.97	1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00			1.00	0.97		1.00	1.00
Flpb, ped/bikes	1.00	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	1.00			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.95	1.00		1.00	1.00
Satd. Flow (prot)	1770	1863	1543	3433	1859			1724	1497		1882	1607
Flt Permitted	0.49	1.00	1.00	0.95	1.00			0.67	1.00		0.97	1.00
Satd. Flow (perm)	904	1863	1543	3433	1859			1210	1497		1835	1607
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	294	147	798	483	6	160	6	550	8	81	27
RTOR Reduction (vph)	0	0	109	0	0	0	0	0	423	0	0	21
Lane Group Flow (vph)	8	294	38	798	489	0	0	166	127	0	89	6
Confl. Peds. (#/hr)			2	2					3	3		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm	Prot	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2				8		8	4		4
Actuated Green, G (s)	18.7	18.7	18.7	22.1	45.8			16.7	16.7		16.7	16.7
Effective Green, g (s)	18.7	18.7	18.7	22.1	45.8			16.7	16.7		16.7	16.7
Actuated g/C Ratio	0.26	0.26	0.26	0.30	0.63			0.23	0.23		0.23	0.23
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5		3.5	3.5
Lane Grp Cap (vph)	233	480	397	1046	1174			278	344		422	370
v/s Ratio Prot		c0.16		c0.23	0.26							
v/s Ratio Perm	0.01		0.02					c0.14	0.08		0.05	0.00
v/c Ratio	0.03	0.61	0.10	0.76	0.42			0.60	0.37		0.21	0.02
Uniform Delay, d1	20.1	23.7	20.5	22.8	6.7			24.9	23.5		22.6	21.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.1	2.4	0.1	3.5	0.3			3.6	0.8		0.3	0.0
Delay (s)	20.2	26.1	20.6	26.3	7.0			28.5	24.3		22.9	21.6
Level of Service	C	C	C	C	A			C	C		C	C
Approach Delay (s)		24.2			18.9			25.2			22.6	
Approach LOS		C			B			C			C	

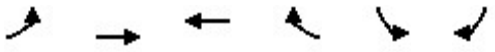
Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	72.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	583	338	499	239	269	854
v/c Ratio	0.69	0.28	0.77	0.39	0.68	0.52
Control Delay	35.7	7.1	34.2	13.1	41.4	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.7	7.1	34.2	13.1	41.4	9.0
Queue Length 50th (m)	47.8	22.6	79.7	15.5	43.6	27.6
Queue Length 95th (m)	76.6	37.4	121.2	35.5	78.4	54.4
Internal Link Dist (m)		75.2	323.0		126.1	
Turn Bay Length (m)	75.0			25.0	75.0	75.0
Base Capacity (vph)	961	1487	884	789	495	1709
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.23	0.56	0.30	0.54	0.50

Intersection Summary



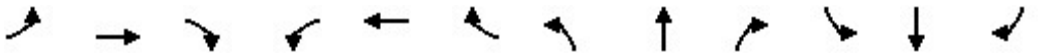
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	554	321	474	227	256	811
Future Volume (vph)	554	321	474	227	256	811
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.88
Frpb, ped/bikes	1.00	1.00	1.00	0.98	1.00	1.00
Flpb, ped/bikes	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)	3433	1863	1863	1535	1770	2787
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1863	1863	1535	1770	2787
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	583	338	499	239	269	854
RTOR Reduction (vph)	0	0	0	76	0	163
Lane Group Flow (vph)	583	338	499	163	269	691
Confl. Peds. (#/hr)	6			6	1	5
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	Prot	NA	NA	Perm	Prot	pt+ov
Protected Phases	5	2	6		4	4 5
Permitted Phases				6		
Actuated Green, G (s)	20.7	55.5	29.8	29.8	19.0	44.7
Effective Green, g (s)	20.7	55.5	29.8	29.8	19.0	44.7
Actuated g/C Ratio	0.24	0.66	0.35	0.35	0.22	0.53
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.5	3.5	3.5	3.5	3.5	
Lane Grp Cap (vph)	840	1223	657	541	397	1474
v/s Ratio Prot	c0.17	0.18	c0.27		c0.15	0.25
v/s Ratio Perm				0.11		
v/c Ratio	0.69	0.28	0.76	0.30	0.68	0.47
Uniform Delay, d1	29.0	6.1	24.2	19.8	29.9	12.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1	5.2	0.4	4.7	0.3
Delay (s)	31.6	6.2	29.4	20.2	34.7	12.7
Level of Service	C	A	C	C	C	B
Approach Delay (s)		22.3	26.4		18.0	
Approach LOS		C	C		B	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	84.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	18	5	20	5	752	26	11	1025	5
Future Volume (Veh/h)	5	5	5	18	5	20	5	752	26	11	1025	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	5	5	5	19	5	21	5	792	27	12	1079	5
Pedestrians		3			3						20	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		0			0						2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)								150				
pX, platoon unblocked												
vC, conflicting volume	1968	1940	545	1390	1930	828	1087			822		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1968	1940	545	1390	1930	828	1087			822		
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 %	84	92	99	79	92	93	99			99		
cM capacity (veh/h)	31	63	481	92	64	308	636			801		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	15	45	824	552	544
Volume Left	5	19	5	12	0
Volume Right	5	21	27	0	5
cSH	60	128	636	801	1700
Volume to Capacity	0.25	0.35	0.01	0.01	0.32
Queue Length 95th (m)	6.9	11.5	0.2	0.4	0.0
Control Delay (s)	83.5	47.8	0.2	0.4	0.0
Lane LOS	F	E	A	A	
Approach Delay (s)	83.5	47.8	0.2	0.2	
Approach LOS	F	E			

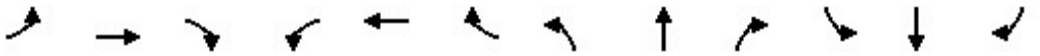
Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	346	28	38	359	36	24	30	73	36	40	115
Future Volume (Veh/h)	26	346	28	38	359	36	24	30	73	36	40	115
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	29	384	31	42	399	40	27	33	81	40	44	128
Pedestrians		32			7			36			13	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			3			1	
Right turn flare (veh)												2
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	452			451			1094	1030	442	1062	1025	464
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	452			451			1094	1030	442	1062	1025	464
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 %	97			96			75	84	86	71	79	78
cM capacity (veh/h)	1081			1071			109	210	587	138	210	576

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	29	415	42	439	141	212
Volume Left	29	0	42	0	27	40
Volume Right	0	31	0	40	81	128
cSH	1081	1700	1071	1700	259	444
Volume to Capacity	0.03	0.24	0.04	0.26	0.54	0.48
Queue Length 95th (m)	0.7	0.0	1.0	0.0	23.8	20.2
Control Delay (s)	8.4	0.0	8.5	0.0	34.2	24.9
Lane LOS	A		A		D	C
Approach Delay (s)	0.6		0.7		34.2	24.9
Approach LOS					D	C

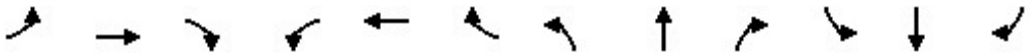
Intersection Summary			
Average Delay	8.4		
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	318	36	45	244	5	34	55	82	18	28	26
Future Volume (Veh/h)	11	318	36	45	244	5	34	55	82	18	28	26
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	12	342	39	48	262	5	37	59	88	19	30	28
Pedestrians		12			3			16			6	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	273			397			814	770	380	853	788	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	273			397			814	770	380	853	788	282
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	99			96			85	81	87	90	90	96
cM capacity (veh/h)	1223			1146			244	308	656	190	301	745

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	12	381	48	267	184	77
Volume Left	12	0	48	0	37	19
Volume Right	0	39	0	5	88	28
cSH	1223	1700	1146	1700	386	325
Volume to Capacity	0.01	0.22	0.04	0.16	0.48	0.24
Queue Length 95th (m)	0.2	0.0	1.0	0.0	19.9	7.2
Control Delay (s)	8.0	0.0	8.3	0.0	22.6	19.5
Lane LOS	A		A		C	C
Approach Delay (s)	0.2		1.3		22.6	19.5
Approach LOS					C	C

Intersection Summary				
Average Delay	6.3			
Intersection Capacity Utilization	44.9%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	43	24	239	5	10	5	291	178	10	7	186	27
Future Volume (vph)	43	24	239	5	10	5	291	178	10	7	186	27
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	45	25	249	5	10	5	303	185	10	7	194	28

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	319	20	498	229
Volume Left (vph)	45	5	303	7
Volume Right (vph)	249	5	10	28
Hadj (s)	-0.40	-0.07	0.15	0.00
Departure Headway (s)	5.5	6.6	5.4	5.7
Degree Utilization, x	0.49	0.04	0.75	0.36
Capacity (veh/h)	603	459	643	587
Control Delay (s)	13.7	9.8	22.9	11.9
Approach Delay (s)	13.7	9.8	22.9	11.9
Approach LOS	B	A	C	B

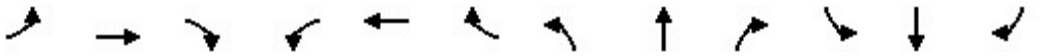
Intersection Summary				
Delay	17.5			
Level of Service	C			
Intersection Capacity Utilization	69.2%	ICU Level of Service	C	
Analysis Period (min)	15			

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	24	239	5	10	5	291	178	10	7	186	27
Future Vol, veh/h	43	24	239	5	10	5	291	178	10	7	186	27
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	6	2	2	2	2	2	2	14	2	4	2
Mvmt Flow	45	25	249	5	10	5	303	185	10	7	194	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.6	9.8	22.8	11.8
HCM LOS	B	A	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	61%	14%	25%	3%
Vol Thru, %	37%	8%	50%	85%
Vol Right, %	2%	78%	25%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	479	306	20	220
LT Vol	291	43	5	7
Through Vol	178	24	10	186
RT Vol	10	239	5	27
Lane Flow Rate	499	319	21	229
Geometry Grp	1	1	1	1
Degree of Util (X)	0.748	0.484	0.038	0.358
Departure Headway (Hd)	5.395	5.469	6.484	5.623
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	669	657	548	637
Service Time	3.441	3.528	4.576	3.683
HCM Lane V/C Ratio	0.746	0.486	0.038	0.359
HCM Control Delay	22.8	13.6	9.8	11.8
HCM Lane LOS	C	B	A	B
HCM 95th-tile Q	6.7	2.6	0.1	1.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	195	66	0	354	5	25	15	8	0	0	42
Future Volume (Veh/h)	5	195	66	0	354	5	25	15	8	0	0	42
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	210	71	0	381	5	27	16	9	0	0	45
Pedestrians		21			1			6				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		2			0			1				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	381			216			711	642	252	657	610	404
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	381			216			711	642	252	657	610	404
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 %	100			100			91	96	99	100	100	93
cM capacity (veh/h)	1177			1347			314	388	782	359	406	635

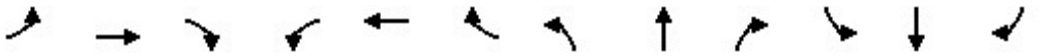
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	286	386	52	45
Volume Left	5	0	27	0
Volume Right	71	5	9	45
cSH	1177	1700	375	635
Volume to Capacity	0.00	0.23	0.14	0.07
Queue Length 95th (m)	0.1	0.0	3.8	1.8
Control Delay (s)	0.2	0.0	16.1	11.1
Lane LOS	A		C	B
Approach Delay (s)	0.2	0.0	16.1	11.1
Approach LOS			C	B

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	373	66	61	158	5	34	5	106	5	5	5
Future Volume (Veh/h)	5	373	66	61	158	5	34	5	106	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	5	405	72	66	172	5	37	5	115	5	5	5
Pedestrians		1			40			31			18	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			3			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	195			508			797	809	512	933	842	194
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	195			508			797	809	512	933	842	194
tC, single (s)	4.3			4.2			7.1	6.7	6.3	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.4			2.3			3.5	4.2	3.4	3.5	4.0	3.6
p0 queue free %	100			93			86	98	78	97	98	99
cM capacity (veh/h)	1258			996			264	263	522	165	268	763

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	482	243	42	115	15
Volume Left	5	66	37	0	5
Volume Right	72	5	0	115	5
cSH	1258	996	264	522	271
Volume to Capacity	0.00	0.07	0.16	0.22	0.06
Queue Length 95th (m)	0.1	1.7	4.4	6.7	1.4
Control Delay (s)	0.1	2.9	21.2	13.8	19.1
Lane LOS	A	A	C	B	C
Approach Delay (s)	0.1	2.9	15.8		19.1
Approach LOS			C		C

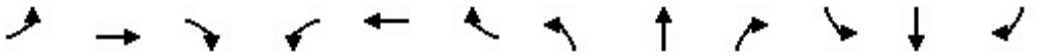
Intersection Summary				
Average Delay	3.9			
Intersection Capacity Utilization	58.0%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	373	66	61	192	5	0	0	107	0	0	5
Future Volume (Veh/h)	5	373	66	61	192	5	0	0	107	0	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	5	405	72	66	209	5	0	0	116	0	0	5
Pedestrians		1			40			31			18	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			3			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					303							
pX, platoon unblocked												
vC, conflicting volume	232			508			832	846	512	968	880	230
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	232			508			832	846	512	968	880	230
tC, single (s)	4.3			4.2			7.1	6.7	6.3	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.4			2.3			3.5	4.2	3.4	3.5	4.0	3.6
p0 queue free %	100			93			100	100	78	100	100	99
cM capacity (veh/h)	1218			996			254	250	522	158	255	726

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	482	280	116	5
Volume Left	5	66	0	0
Volume Right	72	5	116	5
cSH	1218	996	522	726
Volume to Capacity	0.00	0.07	0.22	0.01
Queue Length 95th (m)	0.1	1.7	6.7	0.2
Control Delay (s)	0.1	2.6	13.9	10.0
Lane LOS	A	A	B	A
Approach Delay (s)	0.1	2.6	13.9	10.0
Approach LOS			B	A

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	257	21	42	222	38	5	25	12	7	25	21
Future Volume (Veh/h)	28	257	21	42	222	38	5	25	12	7	25	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	33	302	25	49	261	45	6	29	14	8	29	25
Pedestrians		14			12			27			51	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			2			4	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	357			354			842	862	354	854	852	348
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	357			354			842	862	354	854	852	348
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 %	97			96			97	89	98	96	89	96
cM capacity (veh/h)	1135			1178			218	255	668	213	258	657

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	360	355	49	62
Volume Left	33	49	6	8
Volume Right	25	45	14	25
cSH	1135	1178	302	330
Volume to Capacity	0.03	0.04	0.16	0.19
Queue Length 95th (m)	0.7	1.0	4.6	5.4
Control Delay (s)	1.0	1.5	19.2	18.4
Lane LOS	A	A	C	C
Approach Delay (s)	1.0	1.5	19.2	18.4
Approach LOS			C	C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

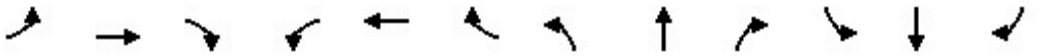
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	360	355	49	62
v/c Ratio	0.26	0.28	0.13	0.16
Control Delay	3.9	4.0	8.6	8.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	3.9	4.0	8.6	8.1
Queue Length 50th (m)	0.0	0.0	1.2	1.3
Queue Length 95th (m)	19.6	19.4	5.5	6.1
Internal Link Dist (m)	279.1	179.5	59.2	64.8
Turn Bay Length (m)				
Base Capacity (vph)	1414	1322	1062	1044
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.25	0.27	0.05	0.06

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	257	21	42	222	38	5	25	12	7	25	21
Future Volume (vph)	28	257	21	42	222	38	5	25	12	7	25	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.99			0.99			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.96			0.95	
Flt Protected		1.00			0.99			0.99			0.99	
Satd. Flow (prot)		1792			1725			1762			1725	
Flt Permitted		0.95			0.92			0.95			0.95	
Satd. Flow (perm)		1718			1606			1677			1641	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	33	302	25	49	261	45	6	29	14	8	29	25
RTOR Reduction (vph)	0	4	0	0	7	0	0	13	0	0	23	0
Lane Group Flow (vph)	0	356	0	0	348	0	0	36	0	0	39	0
Confl. Peds. (#/hr)	51		27	27		51	14		12	12		14
Heavy Vehicles (%)	5%	4%	2%	2%	8%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		20.0			20.0			2.6			2.6	
Effective Green, g (s)		20.0			20.0			2.6			2.6	
Actuated g/C Ratio		0.63			0.63			0.08			0.08	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1087			1016			137			135	
v/s Ratio Prot												
v/s Ratio Perm		0.21			c0.22			0.02			c0.02	
v/c Ratio		0.33			0.34			0.26			0.29	
Uniform Delay, d1		2.7			2.7			13.6			13.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.2			1.0			1.2	
Delay (s)		2.9			2.9			14.6			14.8	
Level of Service		A			A			B			B	
Approach Delay (s)		2.9			2.9			14.6			14.8	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	4.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	31.6	Sum of lost time (s)	9.0
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

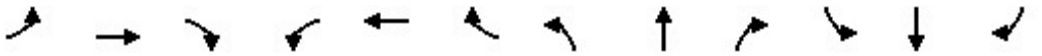
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	202	25	28	201	32	16	15	21	8	16	21
Future Volume (Veh/h)	36	202	25	28	201	32	16	15	21	8	16	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	41	230	28	32	228	36	18	17	24	9	18	24
Pedestrians		34			12			1			39	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			0			3	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	303			259			704	694	257	720	690	319
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	303			259			704	694	257	720	690	319
tC, single (s)	4.2			4.1			7.1	6.5	6.2	7.1	6.5	6.5
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.5
p0 queue free %	96			98			94	95	97	97	95	96
cM capacity (veh/h)	1169			1304			293	333	773	285	335	631

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	299	296	59	51
Volume Left	41	32	18	9
Volume Right	28	36	24	24
cSH	1169	1304	411	414
Volume to Capacity	0.04	0.02	0.14	0.12
Queue Length 95th (m)	0.9	0.6	4.0	3.3
Control Delay (s)	1.4	1.0	15.2	14.9
Lane LOS	A	A	C	B
Approach Delay (s)	1.4	1.0	15.2	14.9
Approach LOS			C	B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	380	129	0	263	5	18	7	7	0	0	29
Future Volume (Veh/h)	9	380	129	0	263	5	18	7	7	0	0	29
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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 (vph)	10	413	140	0	286	5	20	8	8	0	0	32
Pedestrians								1				
Lane Width (m)								3.6				
Walking Speed (m/s)								1.2				
Percent Blockage								0				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	286			414			824	790	484	804	722	288
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	286			414			824	790	484	804	722	288
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 %	99			100			93	97	99	100	100	96
cM capacity (veh/h)	1276			1144			277	320	582	290	350	751

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	563	291	36	32
Volume Left	10	0	20	0
Volume Right	140	5	8	32
cSH	1276	1700	325	751
Volume to Capacity	0.01	0.17	0.11	0.04
Queue Length 95th (m)	0.2	0.0	3.0	1.1
Control Delay (s)	0.2	0.0	17.5	10.0
Lane LOS	A		C	B
Approach Delay (s)	0.2	0.0	17.5	10.0
Approach LOS			C	B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	371	61	121	372	5	53	5	173	8	5	34
Future Volume (Veh/h)	5	371	61	121	372	5	53	5	173	8	5	34
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	399	66	130	400	5	57	5	186	9	5	37
Pedestrians		2			43			38			27	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			4			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)		347										
pX, platoon unblocked												
vC, conflicting volume	432			503			1184	1172	513	1363	1202	432
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	432			503			1184	1172	513	1363	1202	432
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 %	100			87			55	97	65	86	97	94
cM capacity (veh/h)	1102			1028			127	158	524	64	152	605

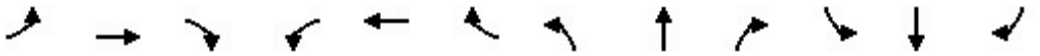
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total	470	535	62	186	51
Volume Left	5	130	57	0	9
Volume Right	66	5	0	186	37
cSH	1102	1028	129	524	217
Volume to Capacity	0.00	0.13	0.48	0.35	0.23
Queue Length 95th (m)	0.1	3.5	17.6	12.7	7.1
Control Delay (s)	0.1	3.3	56.3	15.6	26.6
Lane LOS	A	A	F	C	D
Approach Delay (s)	0.1	3.3	25.8		26.6
Approach LOS			D		D

Intersection Summary				
Average Delay	7.4			
Intersection Capacity Utilization	73.1%	ICU Level of Service		D
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	371	61	121	425	5	0	0	174	0	0	44
Future Volume (Veh/h)	5	371	61	121	425	5	0	0	174	0	0	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	5	399	66	130	457	5	0	0	187	0	0	47
Pedestrians		2			43			38			27	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		0			4			3			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					303							
pX, platoon unblocked												
vC, conflicting volume	489			503			1248	1229	513	1418	1260	488
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	489			503			1248	1229	513	1418	1260	488
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 %	100			87			100	100	64	100	100	92
cM capacity (veh/h)	1050			1028			115	146	524	60	140	561

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	470	592	187	47
Volume Left	5	130	0	0
Volume Right	66	5	187	47
cSH	1050	1028	524	561
Volume to Capacity	0.00	0.13	0.36	0.08
Queue Length 95th (m)	0.1	3.5	12.8	2.2
Control Delay (s)	0.1	3.2	15.6	12.0
Lane LOS	A	A	C	B
Approach Delay (s)	0.1	3.2	15.6	12.0
Approach LOS			C	B

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	384	36	40	373	44	5	48	46	18	33	95
Future Volume (Veh/h)	54	384	36	40	373	44	5	48	46	18	33	95
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	57	404	38	42	393	46	5	51	48	19	35	100
Pedestrians		33			40			119			122	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			3			10			10	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	561			561			1306	1301	582	1272	1297	571
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	561			561			1306	1301	582	1272	1297	571
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			95			91	56	89	68	70	78
cM capacity (veh/h)	907			910			57	116	447	59	117	455

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	499	481	104	154
Volume Left	57	42	5	19
Volume Right	38	46	48	100
cSH	907	910	164	183
Volume to Capacity	0.06	0.05	0.63	0.84
Queue Length 95th (m)	1.6	1.2	28.2	47.9
Control Delay (s)	1.7	1.3	58.6	82.2
Lane LOS	A	A	F	F
Approach Delay (s)	1.7	1.3	58.6	82.2
Approach LOS			F	F

Intersection Summary			
Average Delay	16.4		
Intersection Capacity Utilization	59.8%	ICU Level of Service	B
Analysis Period (min)	15		

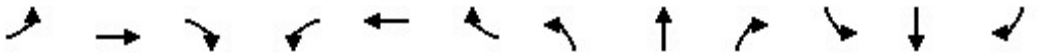
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	499	481	104	154
v/c Ratio	0.50	0.48	0.26	0.37
Control Delay	7.8	7.4	9.1	8.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.8	7.4	9.1	8.4
Queue Length 50th (m)	14.9	13.9	2.1	2.0
Queue Length 95th (m)	41.1	38.5	12.0	14.0
Internal Link Dist (m)	279.1	179.5	59.2	64.8
Turn Bay Length (m)				
Base Capacity (vph)	1200	1215	953	904
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.42	0.40	0.11	0.17

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	384	36	40	373	44	5	48	46	18	33	95
Future Volume (vph)	54	384	36	40	373	44	5	48	46	18	33	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5			4.5			4.5	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.97			0.97	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.99			0.99			0.94			0.91	
Flt Protected		0.99			1.00			1.00			0.99	
Satd. Flow (prot)		1804			1785			1695			1628	
Flt Permitted		0.91			0.94			0.98			0.94	
Satd. Flow (perm)		1659			1680			1658			1536	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	404	38	42	393	46	5	51	48	19	35	100
RTOR Reduction (vph)	0	5	0	0	6	0	0	40	0	0	82	0
Lane Group Flow (vph)	0	494	0	0	475	0	0	64	0	0	72	0
Confl. Peds. (#/hr)	122		119	119		122	33		40	40		33
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		18.5			18.5			5.9			5.9	
Effective Green, g (s)		18.5			18.5			5.9			5.9	
Actuated g/C Ratio		0.55			0.55			0.18			0.18	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		918			930			292			271	
v/s Ratio Prot												
v/s Ratio Perm		c0.30			0.28			0.04			c0.05	
v/c Ratio		0.54			0.51			0.22			0.26	
Uniform Delay, d1		4.7			4.6			11.8			11.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.6			0.5			0.4			0.5	
Delay (s)		5.3			5.1			12.2			12.4	
Level of Service		A			A			B			B	
Approach Delay (s)		5.3			5.1			12.2			12.4	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	33.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	355	32	28	322	41	15	17	36	25	26	54
Future Volume (Veh/h)	32	355	32	28	322	41	15	17	36	25	26	54
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	33	370	33	29	335	43	16	18	38	26	27	56
Pedestrians		51			35			1			71	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			3			0			6	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	449			404			988	960	422	1020	956	478
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	449			404			988	960	422	1020	956	478
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.4
p0 queue free %	97			97			90	92	94	84	88	89
cM capacity (veh/h)	1036			1154			160	228	608	158	226	511

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	436	407	72	109
Volume Left	33	29	16	26
Volume Right	33	43	38	56
cSH	1036	1154	298	277
Volume to Capacity	0.03	0.03	0.24	0.39
Queue Length 95th (m)	0.8	0.6	7.4	14.3
Control Delay (s)	1.0	0.8	20.9	26.2
Lane LOS	A	A	C	D
Approach Delay (s)	1.0	0.8	20.9	26.2
Approach LOS			C	D

Intersection Summary			
Average Delay	5.0		
Intersection Capacity Utilization	49.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	7	29	5	5	38	21	583	9	19	295	35
Future Volume (Veh/h)	23	7	29	5	5	38	21	583	9	19	295	35
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	26	8	33	6	6	43	24	662	10	22	335	40
Pedestrians		14			6			1			10	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1179	1139	370	1138	1154	683	389			678		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1179	1139	370	1138	1154	683	389			678		
tC, single (s)	7.1	6.5	6.3	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	81	96	95	96	97	90	98			98		
cM capacity (veh/h)	138	189	652	156	185	440	1156			909		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	67	55	24	672	22	375
Volume Left	26	6	24	0	22	0
Volume Right	33	43	0	10	0	40
cSH	238	326	1156	1700	909	1700
Volume to Capacity	0.28	0.17	0.02	0.40	0.02	0.22
Queue Length 95th (m)	8.9	4.8	0.5	0.0	0.6	0.0
Control Delay (s)	26.0	18.3	8.2	0.0	9.1	0.0
Lane LOS	D	C	A		A	
Approach Delay (s)	26.0	18.3	0.3		0.5	
Approach LOS	D	C				

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	47.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	95	5	5	153	142	47
Future Volume (Veh/h)	95	5	5	153	142	47
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	99	5	5	159	148	49
Pedestrians	2			2	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	348	176	199			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	176	199			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	85	99	100			
cM capacity (veh/h)	642	864	1371			

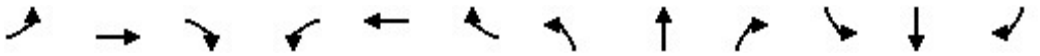
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	104	164	197
Volume Left	99	5	0
Volume Right	5	0	49
cSH	650	1371	1700
Volume to Capacity	0.16	0.00	0.12
Queue Length 95th (m)	4.5	0.1	0.0
Control Delay (s)	11.6	0.3	0.0
Lane LOS	B	A	
Approach Delay (s)	11.6	0.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	17	25	9	28	12	33	227	51	5	156	30
Future Volume (Veh/h)	16	17	25	9	28	12	33	227	51	5	156	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	18	20	29	10	32	14	38	261	59	6	179	34
Pedestrians		38			8			7			12	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	608	633	224	582	608	281	251			328		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	608	633	224	582	608	281	251			328		
tC, single (s)	7.2	6.5	6.2	7.1	6.5	6.2	4.1			4.3		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.4		
p0 queue free %	95	95	96	97	92	98	97			99		
cM capacity (veh/h)	332	369	778	366	377	745	1273			1130		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	67	56	299	59	185	34
Volume Left	18	10	38	0	6	0
Volume Right	29	14	0	59	0	34
cSH	460	428	1273	1700	1130	1700
Volume to Capacity	0.15	0.13	0.03	0.03	0.01	0.02
Queue Length 95th (m)	4.1	3.6	0.7	0.0	0.1	0.0
Control Delay (s)	14.2	14.7	1.2	0.0	0.3	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.2	14.7	1.0		0.3	
Approach LOS	B	B				

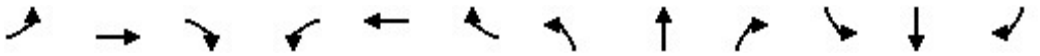
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	42.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	5	25	21	0	11	0	420	61	7	249	0
Future Volume (Veh/h)	24	5	25	21	0	11	0	420	61	7	249	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	27	6	28	24	0	12	0	477	69	8	283	0
Pedestrians		17			9			1			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	844	871	301	852	836	526	300			555		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	844	871	301	852	836	526	300			555		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	90	98	96	90	100	98	100			99		
cM capacity (veh/h)	261	281	728	253	294	546	1243			1008		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	61	36	546	291
Volume Left	27	24	0	8
Volume Right	28	12	69	0
cSH	374	308	1700	1008
Volume to Capacity	0.16	0.12	0.32	0.01
Queue Length 95th (m)	4.6	3.1	0.0	0.2
Control Delay (s)	16.5	18.2	0.0	0.3
Lane LOS	C	C		A
Approach Delay (s)	16.5	18.2	0.0	0.3
Approach LOS	C	C		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	37.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	0	25	0	0	11	0	420	61	7	249	0
Future Volume (Veh/h)	29	0	25	0	0	11	0	420	61	7	249	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	33	0	28	0	0	12	0	477	69	8	283	0
Pedestrians		17			9			1			5	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	844	871	301	848	836	526	300			555		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	844	871	301	848	836	526	300			555		
tC, single (s)	7.2	6.5	6.2	7.2	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	87	100	96	100	100	98	100			99		
cM capacity (veh/h)	261	281	728	258	294	546	1243			1008		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	61	12	546	291
Volume Left	33	0	0	8
Volume Right	28	12	69	0
cSH	370	546	1700	1008
Volume to Capacity	0.16	0.02	0.32	0.01
Queue Length 95th (m)	4.7	0.5	0.0	0.2
Control Delay (s)	16.6	11.7	0.0	0.3
Lane LOS	C	B		A
Approach Delay (s)	16.6	11.7	0.0	0.3
Approach LOS	C	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	5	21	5	9	64	35	558	5	27	518	64
Future Volume (Veh/h)	24	5	21	5	9	64	35	558	5	27	518	64
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	26	5	23	5	10	70	38	607	5	29	563	70
Pedestrians		29			5			1			21	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			0			0			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1464	1378	628	1338	1410	636	662			617		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1464	1378	628	1338	1410	636	662			617		
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 %	66	96	95	95	92	85	96			97		
cM capacity (veh/h)	75	131	471	111	125	468	895			959		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	54	85	38	612	29	633
Volume Left	26	5	38	0	29	0
Volume Right	23	70	0	5	0	70
cSH	125	309	895	1700	959	1700
Volume to Capacity	0.43	0.27	0.04	0.36	0.03	0.37
Queue Length 95th (m)	15.1	8.8	1.1	0.0	0.7	0.0
Control Delay (s)	54.1	21.0	9.2	0.0	8.9	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	54.1	21.0	0.5		0.4	
Approach LOS	F	C				

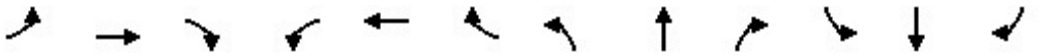
Intersection Summary				
Average Delay	3.7			
Intersection Capacity Utilization	48.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	74	8	13	206	135	118
Future Volume (Veh/h)	74	8	13	206	135	118
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	83	9	15	231	152	133
Pedestrians	1			1	3	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	484	220	286			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	484	220	286			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	84	99	99			
cM capacity (veh/h)	534	818	1275			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	92	246	285
Volume Left	83	15	0
Volume Right	9	0	133
cSH	553	1275	1700
Volume to Capacity	0.17	0.01	0.17
Queue Length 95th (m)	4.7	0.3	0.0
Control Delay (s)	12.8	0.6	0.0
Lane LOS	B	A	
Approach Delay (s)	12.8	0.6	0.0
Approach LOS	B		

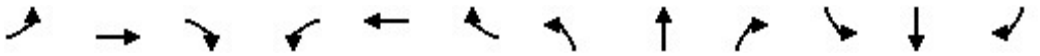
Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	41	91	37	73	24	46	356	63	12	260	100
Future Volume (Veh/h)	55	41	91	37	73	24	46	356	63	12	260	100
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	59	44	98	40	78	26	49	383	68	13	280	108
Pedestrians		42			20			14			33	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		4			2			1			3	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	927	917	336	941	957	436	430			471		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	927	917	336	941	957	436	430			471		
tC, single (s)	7.1	6.6	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	61	82	85	75	66	96	96			99		
cM capacity (veh/h)	152	240	673	160	231	593	1090			1073		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	201	144	432	68	293	108
Volume Left	59	40	49	0	13	0
Volume Right	98	26	0	68	0	108
cSH	280	228	1090	1700	1073	1700
Volume to Capacity	0.72	0.63	0.04	0.04	0.01	0.06
Queue Length 95th (m)	40.3	30.3	1.1	0.0	0.3	0.0
Control Delay (s)	44.7	44.5	1.4	0.0	0.5	0.0
Lane LOS	E	E	A		A	
Approach Delay (s)	44.7	44.5	1.2		0.4	
Approach LOS	E	E				

Intersection Summary				
Average Delay	12.9			
Intersection Capacity Utilization	61.0%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	5	45	65	0	32	0	529	49	17	433	0
Future Volume (Veh/h)	37	5	45	65	0	32	0	529	49	17	433	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	41	6	50	72	0	36	0	588	54	19	481	0
Pedestrians		40			20			10			15	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1225	1221	531	1217	1194	650	521			662		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1225	1221	531	1217	1194	650	521			662		
tC, single (s)	7.2	6.9	6.2	7.1	7.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.9	3.3	2.2			2.2		
p0 queue free %	67	96	90	44	100	92	100			98		
cM capacity (veh/h)	124	142	525	128	115	452	1010			911		

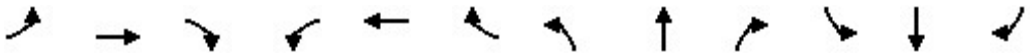
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	97	108	642	500
Volume Left	41	72	0	19
Volume Right	50	36	54	0
cSH	207	168	1700	911
Volume to Capacity	0.47	0.64	0.38	0.02
Queue Length 95th (m)	18.1	29.2	0.0	0.5
Control Delay (s)	36.8	58.8	0.0	0.6
Lane LOS	E	F		A
Approach Delay (s)	36.8	58.8	0.0	0.6
Approach LOS	E	F		

Intersection Summary				
Average Delay	7.6			
Intersection Capacity Utilization	54.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	0	50	0	0	32	0	529	49	17	433	0
Future Volume (Veh/h)	37	0	50	0	0	32	0	529	49	17	433	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	41	0	56	0	0	36	0	588	54	19	481	0
Pedestrians		40			20			10			15	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1225	1221	531	1220	1194	650	521			662		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1225	1221	531	1220	1194	650	521			662		
tC, single (s)	7.2	6.9	6.2	7.1	7.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.9	3.3	2.2			2.2		
p0 queue free %	67	100	89	100	100	92	100			98		
cM capacity (veh/h)	124	142	525	129	115	452	1010			911		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	97	36	642	500
Volume Left	41	0	0	19
Volume Right	56	36	54	0
cSH	222	452	1700	911
Volume to Capacity	0.44	0.08	0.38	0.02
Queue Length 95th (m)	16.5	2.1	0.0	0.5
Control Delay (s)	33.2	13.7	0.0	0.6
Lane LOS	D	B		A
Approach Delay (s)	33.2	13.7	0.0	0.6
Approach LOS	D	B		

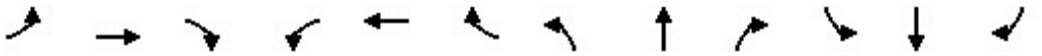
Intersection Summary				
Average Delay	3.1			
Intersection Capacity Utilization	56.2%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	969	5	9	759	13	5	5	26	5	5	7
Future Volume (Veh/h)	5	969	5	9	759	13	5	5	26	5	5	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	1114	6	10	872	15	6	6	30	6	6	8
Pedestrians		1						5			14	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	901			1125			1602	2055	565	1516	2050	458
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	901			1125			1602	2055	565	1516	2050	458
tC, single (s)	4.5			4.1			7.5	6.5	6.9	8.5	6.5	7.7
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.0	3.3	4.0	4.0	3.7
p0 queue free %	99			98			90	89	94	86	89	98
cM capacity (veh/h)	639			614			61	52	466	42	53	452

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	563	563	446	451	42	20
Volume Left	6	0	10	0	6	6
Volume Right	0	6	0	15	30	8
cSH	639	1700	614	1700	152	73
Volume to Capacity	0.01	0.33	0.02	0.27	0.28	0.27
Queue Length 95th (m)	0.2	0.0	0.4	0.0	8.5	7.8
Control Delay (s)	0.3	0.0	0.5	0.0	37.6	71.5
Lane LOS	A		A		E	F
Approach Delay (s)	0.1		0.2		37.6	71.5
Approach LOS					E	F

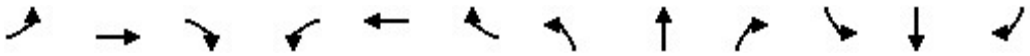
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	900	5	0	508	38	0	0	5	0	0	36
Future Volume (Veh/h)	34	900	5	0	508	38	0	0	5	0	0	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	35	938	5	0	529	40	0	0	5	0	0	38
Pedestrians								6			1	
Lane Width (m)								3.6			3.6	
Walking Speed (m/s)								1.2			1.2	
Percent Blockage								1			0	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	570			949			1319	1586	478	1094	1569	286
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	570			949			1319	1586	478	1094	1569	286
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	96			100			100	100	99	100	100	95
cM capacity (veh/h)	998			716			105	103	531	162	105	711

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	35	625	318	353	216	5	38
Volume Left	35	0	0	0	0	0	0
Volume Right	0	0	5	0	40	5	38
cSH	998	1700	1700	1700	1700	531	711
Volume to Capacity	0.04	0.37	0.19	0.21	0.13	0.01	0.05
Queue Length 95th (m)	0.9	0.0	0.0	0.0	0.0	0.2	1.4
Control Delay (s)	8.7	0.0	0.0	0.0	0.0	11.8	10.4
Lane LOS	A					B	B
Approach Delay (s)	0.3			0.0		11.8	10.4
Approach LOS						B	B

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	35.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	194	9	53	350	16	7	62	17	5	54	91
Future Volume (Veh/h)	57	194	9	53	350	16	7	62	17	5	54	91
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	67	228	11	62	412	19	8	73	20	6	64	107
Pedestrians		38						24			24	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		3						2			2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	455			263			1114	970	258	994	966	484
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	455			263			1114	970	258	994	966	484
tC, single (s)	4.1			4.1			7.1	6.6	6.3	7.1	6.5	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.4	3.5	4.0	3.4
p0 queue free %	94			95			92	66	97	96	71	80
cM capacity (veh/h)	1084			1275			98	213	751	141	218	546

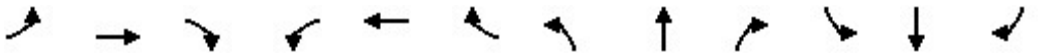
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	306	493	101	177
Volume Left	67	62	8	6
Volume Right	11	19	20	107
cSH	1084	1275	224	333
Volume to Capacity	0.06	0.05	0.45	0.53
Queue Length 95th (m)	1.6	1.2	17.2	23.7
Control Delay (s)	2.4	1.5	33.6	27.5
Lane LOS	A	A	D	D
Approach Delay (s)	2.4	1.5	33.6	27.5
Approach LOS			D	D

Intersection Summary			
Average Delay	9.0		
Intersection Capacity Utilization	45.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	773	5	36	1151	9	5	5	37	9	5	5
Future Volume (Veh/h)	5	773	5	36	1151	9	5	5	37	9	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	5	797	5	37	1187	9	5	5	38	9	5	5
Pedestrians		3						5			8	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1204			807			1492	2092	406	1722	2090	609
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1204			807			1492	2092	406	1722	2090	609
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
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 %	99			95			93	90	94	81	90	99
cM capacity (veh/h)	571			810			73	48	592	47	49	434

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	404	404	630	602	48	19
Volume Left	5	0	37	0	5	9
Volume Right	0	5	0	9	38	5
cSH	571	1700	810	1700	204	62
Volume to Capacity	0.01	0.24	0.05	0.35	0.24	0.31
Queue Length 95th (m)	0.2	0.0	1.1	0.0	7.1	8.8
Control Delay (s)	0.3	0.0	1.2	0.0	28.0	87.1
Lane LOS	A		A		D	F
Approach Delay (s)	0.1		0.6		28.0	87.1
Approach LOS					D	F

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	669	5	0	927	183	0	0	5	0	0	273
Future Volume (Veh/h)	98	669	5	0	927	183	0	0	5	0	0	273
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	101	690	5	0	956	189	0	0	5	0	0	281
Pedestrians					1			3			14	
Lane Width (m)					3.6			3.6			3.6	
Walking Speed (m/s)					1.2			1.2			1.2	
Percent Blockage					0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1159			698			1656	2056	352	1618	1964	586
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1159			698			1656	2056	352	1618	1964	586
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.6	6.5	6.9
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 %	83			100			100	100	99	100	100	37
cM capacity (veh/h)	592			892			21	45	643	57	51	448

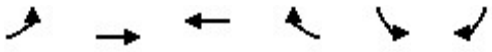
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	101	460	235	637	508	5	281
Volume Left	101	0	0	0	0	0	0
Volume Right	0	0	5	0	189	5	281
cSH	592	1700	1700	1700	1700	643	448
Volume to Capacity	0.17	0.27	0.14	0.37	0.30	0.01	0.63
Queue Length 95th (m)	4.9	0.0	0.0	0.0	0.0	0.2	33.6
Control Delay (s)	12.3	0.0	0.0	0.0	0.0	10.6	25.6
Lane LOS	B					B	D
Approach Delay (s)	1.6			0.0		10.6	25.6
Approach LOS						B	D

Intersection Summary				
Average Delay	3.8			
Intersection Capacity Utilization	55.3%	ICU Level of Service	B	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	428	34	26	288	9	16	29	40	12	53	65
Future Volume (Veh/h)	48	428	34	26	288	9	16	29	40	12	53	65
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	49	441	35	27	297	9	16	30	41	12	55	67
Pedestrians		5						6			6	
Lane Width (m)		3.6						3.6			3.6	
Walking Speed (m/s)		1.2						1.2			1.2	
Percent Blockage		0						1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	312			482			1018	928	464	974	942	312
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	312			482			1018	928	464	974	942	312
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 %	96			97			89	88	93	93	77	91
cM capacity (veh/h)	1242			1075			152	248	595	184	243	716

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	525	333	87	134
Volume Left	49	27	16	12
Volume Right	35	9	41	67
cSH	1242	1075	295	348
Volume to Capacity	0.04	0.03	0.30	0.39
Queue Length 95th (m)	1.0	0.6	9.6	14.1
Control Delay (s)	1.1	0.9	22.3	21.7
Lane LOS	A	A	C	C
Approach Delay (s)	1.1	0.9	22.3	21.7
Approach LOS			C	C

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	128	358	476	5	5	150
Future Volume (Veh/h)	128	358	476	5	5	150
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	138	385	512	5	5	161
Pedestrians		14				
Lane Width (m)		3.6				
Walking Speed (m/s)		1.2				
Percent Blockage		1				
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	517				1176	528
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	517				1176	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 %	87				97	70
cM capacity (veh/h)	1049				184	544

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	523	517	166
Volume Left	138	0	5
Volume Right	0	5	161
cSH	1049	1700	513
Volume to Capacity	0.13	0.30	0.32
Queue Length 95th (m)	3.6	0.0	11.1
Control Delay (s)	3.5	0.0	15.3
Lane LOS	A		C
Approach Delay (s)	3.5	0.0	15.3
Approach LOS			C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	6	452	380	331	369	18
v/c Ratio	0.02	0.80	0.72	0.30	0.79	0.05
Control Delay	16.2	31.3	17.2	6.7	24.8	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	31.3	17.2	6.7	24.8	16.3
Queue Length 50th (m)	0.5	44.1	18.9	15.3	19.6	1.1
Queue Length 95th (m)	2.9	#90.1	45.3	29.6	46.3	5.4
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	422	713	624	1360	614	504
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.63	0.61	0.24	0.60	0.04

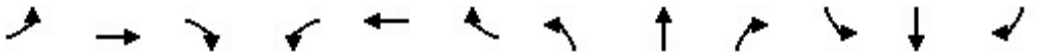
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	290	94	323	264	17	79	8	227	5	5	5
Future Volume (vph)	5	290	94	323	264	17	79	8	227	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.98		1.00	1.00			0.98			0.98	
Flpb, ped/bikes	0.99	1.00		0.99	1.00			0.99			1.00	
Frt	1.00	0.96		1.00	0.99			0.90			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1752	1716		1760	1819			1577			1625	
Flt Permitted	0.56	1.00		0.22	1.00			0.91			0.89	
Satd. Flow (perm)	1034	1716		416	1819			1450			1467	
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	6	341	111	380	311	20	93	9	267	6	6	6
RTOR Reduction (vph)	0	17	0	0	3	0	0	142	0	0	5	0
Lane Group Flow (vph)	6	435	0	380	328	0	0	227	0	0	13	0
Confl. Peds. (#/hr)	10		52	52		10	17		5	5		17
Heavy Vehicles (%)	2%	2%	10%	2%	3%	8%	12%	2%	2%	2%	20%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	18.9	18.9		35.4	35.4			13.1			13.1	
Effective Green, g (s)	18.9	18.9		35.4	35.4			13.1			13.1	
Actuated g/C Ratio	0.33	0.33		0.62	0.62			0.23			0.23	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	339	564		536	1119			330			334	
v/s Ratio Prot		0.25		c0.15	0.18							
v/s Ratio Perm	0.01			c0.29				c0.16			0.01	
v/c Ratio	0.02	0.77		0.71	0.29			0.69			0.04	
Uniform Delay, d1	13.0	17.4		7.9	5.2			20.3			17.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	6.5		4.3	0.1			5.9			0.0	
Delay (s)	13.1	23.8		12.2	5.3			26.2			17.3	
Level of Service	B	C		B	A			C			B	
Approach Delay (s)		23.7			9.0			26.2			17.3	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	57.5	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

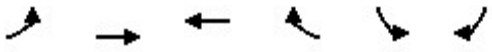
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	108	16	11	373	16	30	84	21	8	90	67
Future Volume (Veh/h)	13	108	16	11	373	16	30	84	21	8	90	67
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	15	127	19	13	439	19	35	99	25	9	106	79
Pedestrians		44									29	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		4									2	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	487			146			817	680	136	744	680	522
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	487			146			817	680	136	744	680	522
tC, single (s)	4.2			4.2			7.1	6.5	6.3	7.3	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.3			3.5	4.0	3.4	3.7	4.0	3.3
p0 queue free %	99			99			80	72	97	96	70	85
cM capacity (veh/h)	1011			1371			179	354	902	224	356	522

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	161	471	159	194
Volume Left	15	13	35	9
Volume Right	19	19	25	79
cSH	1011	1371	316	396
Volume to Capacity	0.01	0.01	0.50	0.49
Queue Length 95th (m)	0.4	0.2	21.3	20.9
Control Delay (s)	0.9	0.3	27.3	22.5
Lane LOS	A	A	D	C
Approach Delay (s)	0.9	0.3	27.3	22.5
Approach LOS			D	C

Intersection Summary			
Average Delay	9.1		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	164	466	408	5	5	208
Future Volume (Veh/h)	164	466	408	5	5	208
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	169	480	421	5	5	214
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	426				1242	424
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426				1242	424
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	85				97	66
cM capacity (veh/h)	1133				164	630

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	649	426	219
Volume Left	169	0	5
Volume Right	0	5	214
cSH	1133	1700	592
Volume to Capacity	0.15	0.25	0.37
Queue Length 95th (m)	4.2	0.0	13.6
Control Delay (s)	3.6	0.0	14.6
Lane LOS	A		B
Approach Delay (s)	3.6	0.0	14.6
Approach LOS			B

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		



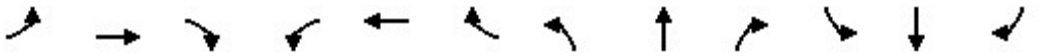
Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	5	229	318	315	561	49
v/c Ratio	0.02	0.51	0.51	0.31	0.77	0.19
Control Delay	14.4	17.2	9.8	7.0	10.8	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	17.2	9.8	7.0	10.8	12.4
Queue Length 50th (m)	0.3	11.8	9.4	8.8	3.9	2.1
Queue Length 95th (m)	2.6	35.3	35.1	33.3	28.5	9.0
Internal Link Dist (m)		145.7		65.1	38.5	80.6
Turn Bay Length (m)	15.0		20.0			
Base Capacity (vph)	471	810	633	1416	1014	546
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.28	0.50	0.22	0.55	0.09

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	161	59	305	277	25	55	9	475	21	12	13
Future Volume (vph)	5	161	59	305	277	25	55	9	475	21	12	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99		1.00	1.00			0.98			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.96		1.00	0.99			0.88			0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1766	1777		1750	1836			1601			1737	
Flt Permitted	0.57	1.00		0.43	1.00			0.96			0.61	
Satd. Flow (perm)	1058	1777		784	1836			1542			1088	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	5	168	61	318	289	26	57	9	495	22	12	14
RTOR Reduction (vph)	0	23	0	0	5	0	0	381	0	0	11	0
Lane Group Flow (vph)	5	206	0	318	310	0	0	180	0	0	38	0
Confl. Peds. (#/hr)	3		4	4		3	7		1	1		7
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.3	10.3		23.1	23.1			9.6			9.6	
Effective Green, g (s)	10.3	10.3		23.1	23.1			9.6			9.6	
Actuated g/C Ratio	0.25	0.25		0.55	0.55			0.23			0.23	
Clearance Time (s)	4.5	4.5		4.5	4.5			4.5			4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	261	438		626	1017			354			250	
v/s Ratio Prot		0.12		c0.10	0.17							
v/s Ratio Perm	0.00			c0.18				c0.12			0.04	
v/c Ratio	0.02	0.47		0.51	0.30			0.51			0.15	
Uniform Delay, d1	11.9	13.4		5.4	5.0			14.0			12.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.8		0.7	0.2			1.2			0.3	
Delay (s)	11.9	14.2		6.1	5.2			15.1			13.1	
Level of Service	B	B		A	A			B			B	
Approach Delay (s)		14.1			5.6			15.1			13.1	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	41.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	249	17	8	223	7	29	104	30	28	71	53
Future Volume (Veh/h)	40	249	17	8	223	7	29	104	30	28	71	53
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	43	265	18	9	237	7	31	111	32	30	76	56
Pedestrians		10			1						7	
Lane Width (m)		3.6			3.6						3.6	
Walking Speed (m/s)		1.2			1.2						1.2	
Percent Blockage		1			0						1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	251			283			722	629	275	714	634	258
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	251			283			722	629	275	714	634	258
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 %	97			99			88	71	96	88	80	93
cM capacity (veh/h)	1307			1279			257	381	763	247	378	770

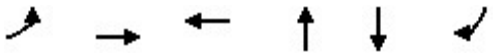
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	326	253	174	162
Volume Left	43	9	31	30
Volume Right	18	7	32	56
cSH	1307	1279	383	410
Volume to Capacity	0.03	0.01	0.45	0.40
Queue Length 95th (m)	0.8	0.2	18.3	14.8
Control Delay (s)	1.3	0.3	22.0	19.4
Lane LOS	A	A	C	C
Approach Delay (s)	1.3	0.3	22.0	19.4
Approach LOS			C	C

Intersection Summary			
Average Delay	8.2		
Intersection Capacity Utilization	51.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	22	24	42	57	49	41	431	46	46	449	11
Future Volume (Veh/h)	9	22	24	42	57	49	41	431	46	46	449	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	9	23	25	43	59	51	42	444	47	47	463	11
Pedestrians		5			4			18				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			0			2				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1200	1146	492	1172	1128	472	479			495		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1200	1146	492	1172	1128	472	479			495		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	91	87	96	68	68	91	96			96		
cM capacity (veh/h)	104	181	566	134	186	588	1079			1045		

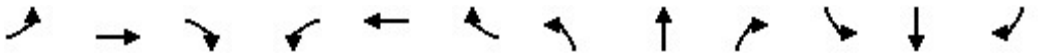
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	57	153	533	521
Volume Left	9	43	42	47
Volume Right	25	51	47	11
cSH	221	211	1079	1045
Volume to Capacity	0.26	0.73	0.04	0.04
Queue Length 95th (m)	7.9	38.2	1.0	1.1
Control Delay (s)	26.8	57.2	1.1	1.3
Lane LOS	D	F	A	A
Approach Delay (s)	26.8	57.2	1.1	1.3
Approach LOS	D	F		

Intersection Summary				
Average Delay	9.1			
Intersection Capacity Utilization	57.1%	ICU Level of Service	B	
Analysis Period (min)	15			



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	153	346	914	15	48	143
v/c Ratio	0.41	0.16	0.42	0.05	0.19	0.35
Control Delay	9.3	3.8	4.8	13.2	16.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	3.8	4.8	13.2	16.8	6.8
Queue Length 50th (m)	4.6	4.3	13.3	0.5	2.2	0.0
Queue Length 95th (m)	17.2	9.4	26.3	4.7	11.4	11.6
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	480	2803	2811	765	681	875
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.12	0.33	0.02	0.07	0.16

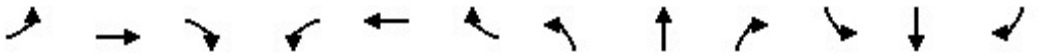
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	141	314	5	5	726	110	5	5	5	40	5	132
Future Volume (vph)	141	314	5	5	726	110	5	5	5	40	5	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.96	1.00
Satd. Flow (prot)	1749	3235			3399			1651			1708	1559
Flt Permitted	0.30	1.00			0.95			0.88			0.74	1.00
Satd. Flow (perm)	555	3235			3242			1476			1316	1559
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)	153	341	5	5	789	120	5	5	5	43	5	143
RTOR Reduction (vph)	0	2	0	0	17	0	0	4	0	0	0	122
Lane Group Flow (vph)	153	344	0	0	897	0	0	11	0	0	48	21
Confl. Peds. (#/hr)	6		8	8		6	5					5
Heavy Vehicles (%)	3%	11%	33%	2%	4%	2%	2%	2%	20%	7%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	23.6	23.6			23.6			5.6			5.6	5.6
Effective Green, g (s)	23.6	23.6			23.6			5.6			5.6	5.6
Actuated g/C Ratio	0.62	0.62			0.62			0.15			0.15	0.15
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	342	1998			2002			216			192	228
v/s Ratio Prot		0.11										
v/s Ratio Perm	0.28				c0.28			0.01			c0.04	0.01
v/c Ratio	0.45	0.17			0.45			0.05			0.25	0.09
Uniform Delay, d1	3.9	3.1			3.9			14.0			14.4	14.1
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	0.9	0.0			0.2			0.1			0.7	0.2
Delay (s)	4.8	3.2			4.0			14.1			15.1	14.3
Level of Service	A	A			A			B			B	B
Approach Delay (s)		3.7			4.0			14.1			14.5	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	5.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	38.2	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

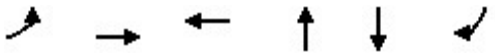
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	29	37	40	34	50	21	451	62	70	482	15
Future Volume (Veh/h)	8	29	37	40	34	50	21	451	62	70	482	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	9	31	39	43	36	53	22	480	66	74	513	16
Pedestrians					2			6				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			1				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1297	1261	527	1288	1236	515	529			548		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1297	1261	527	1288	1236	515	529			548		
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 %	91	80	93	58	77	90	98			93		
cM capacity (veh/h)	97	154	544	102	160	553	1038			1020		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	79	132	568	603
Volume Left	9	43	22	74
Volume Right	39	53	66	16
cSH	216	178	1038	1020
Volume to Capacity	0.37	0.74	0.02	0.07
Queue Length 95th (m)	12.7	37.9	0.5	1.9
Control Delay (s)	31.0	67.9	0.6	1.9
Lane LOS	D	F	A	A
Approach Delay (s)	31.0	67.9	0.6	1.9
Approach LOS	D	F		

Intersection Summary			
Average Delay	9.3		
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	236	684	743	15	113	359
v/c Ratio	0.67	0.36	0.42	0.04	0.35	0.64
Control Delay	20.0	6.6	6.5	12.7	18.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	6.6	6.5	12.7	18.6	11.7
Queue Length 50th (m)	9.9	12.0	12.2	0.6	6.7	6.6
Queue Length 95th (m)	#52.2	30.9	32.5	4.3	21.1	30.3
Internal Link Dist (m)		170.1	154.8	19.4	147.7	
Turn Bay Length (m)	30.0					20.0
Base Capacity (vph)	525	2803	2604	763	634	865
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.24	0.29	0.02	0.18	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	672	5	5	610	121	5	5	5	107	5	355
Future Volume (vph)	234	672	5	5	610	121	5	5	5	107	5	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Lane Util. Factor	1.00	0.95			0.95			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	0.99
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.98			0.95			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1769	3535			3439			1749			1778	1563
Flt Permitted	0.36	1.00			0.95			0.91			0.72	1.00
Satd. Flow (perm)	663	3535			3272			1620			1350	1563
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	236	679	5	5	616	122	5	5	5	108	5	359
RTOR Reduction (vph)	0	1	0	0	27	0	0	4	0	0	0	187
Lane Group Flow (vph)	236	683	0	0	716	0	0	11	0	0	113	172
Confl. Peds. (#/hr)	1		3	3		1	1					1
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	22.8	22.8			22.8			10.2			10.2	10.2
Effective Green, g (s)	22.8	22.8			22.8			10.2			10.2	10.2
Actuated g/C Ratio	0.54	0.54			0.54			0.24			0.24	0.24
Clearance Time (s)	4.5	4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)	3.0	3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	359	1919			1776			393			327	379
v/s Ratio Prot		0.19										
v/s Ratio Perm	c0.36				0.22			0.01			0.08	c0.11
v/c Ratio	0.66	0.36			0.40			0.03			0.35	0.45
Uniform Delay, d1	6.8	5.4			5.6			12.1			13.1	13.5
Progression Factor	1.00	1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2	4.3	0.1			0.2			0.0			0.6	0.9
Delay (s)	11.1	5.6			5.8			12.2			13.8	14.4
Level of Service	B	A			A			B			B	B
Approach Delay (s)		7.0			5.8			12.2			14.2	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	42.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	1009	0	0	735
Future Volume (Veh/h)	0	0	1009	0	0	735
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	1134	0	0	826
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.76					
vC, conflicting volume	1960	1134			1134	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2104	1134			1134	
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)	43	247			616	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	1134	826
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1700	1700
Volume to Capacity	0.00	0.67	0.49
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	56.4%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	166	39	1330	1154
v/c Ratio	0.26	0.06	1.89	1.05
Control Delay	7.7	6.7	425.2	61.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	7.7	6.7	425.2	61.2
Queue Length 50th (m)	6.3	1.2	~121.7	~67.7
Queue Length 95th (m)	16.2	5.5	#157.4	#102.1
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	646	665	704	1094
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.26	0.06	1.89	1.05

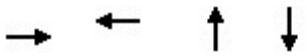
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	20	58	5	8	21	160	1008	15	15	686	326
Future Volume (vph)	70	20	58	5	8	21	160	1008	15	15	686	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.95	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1618			1569			3422			3280	
Flt Permitted		0.86			0.97			0.53			0.79	
Satd. Flow (perm)		1421			1527			1822			2586	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	79	22	65	6	9	24	180	1133	17	17	771	366
RTOR Reduction (vph)	0	37	0	0	11	0	0	2	0	0	98	0
Lane Group Flow (vph)	0	129	0	0	28	0	0	1328	0	0	1056	0
Confl. Peds. (#/hr)	8		23	23		8	2		3	3		2
Heavy Vehicles (%)	4%	7%	7%	2%	2%	13%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			21.6			21.6	
Effective Green, g (s)		24.0			24.0			21.6			21.6	
Actuated g/C Ratio		0.43			0.43			0.39			0.39	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		609			654			702			997	
v/s Ratio Prot												
v/s Ratio Perm		c0.09			0.02			c0.73			0.41	
v/c Ratio		0.21			0.04			1.89			1.06	
Uniform Delay, d1		10.1			9.3			17.2			17.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		0.2			0.0			406.7			45.6	
Delay (s)		10.3			9.3			423.9			62.8	
Level of Service		B			A			F			E	
Approach Delay (s)		10.3			9.3			423.9			62.8	
Approach LOS		B			A			F			E	

Intersection Summary			
HCM 2000 Control Delay	237.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	96.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



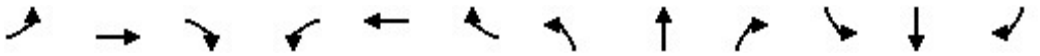
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	166	248	1120	1154
v/c Ratio	0.76	0.59	0.84	0.57
Control Delay	45.5	19.0	18.4	8.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	45.5	19.0	18.4	8.0
Queue Length 50th (m)	20.0	14.8	57.6	36.2
Queue Length 95th (m)	42.9	37.6	#123.4	68.2
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	338	598	1594	2381
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.49	0.41	0.70	0.48

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	20	58	5	34	182	134	847	15	15	686	326
Future Volume (vph)	70	20	58	5	34	182	134	847	15	15	686	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.98			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.89			1.00			0.95	
Flt Protected		0.98			1.00			0.99			1.00	
Satd. Flow (prot)		1616			1495			3421			3281	
Flt Permitted		0.56			0.99			0.60			0.93	
Satd. Flow (perm)		926			1484			2076			3057	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	79	22	65	6	38	204	151	952	17	17	771	366
RTOR Reduction (vph)	0	28	0	0	112	0	0	1	0	0	56	0
Lane Group Flow (vph)	0	138	0	0	136	0	0	1119	0	0	1098	0
Confl. Peds. (#/hr)	8		23	23		8	2		3	3		2
Heavy Vehicles (%)	4%	7%	7%	2%	2%	13%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.3			15.3			47.5			47.5	
Effective Green, g (s)		15.3			15.3			47.5			47.5	
Actuated g/C Ratio		0.21			0.21			0.65			0.65	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		193			310			1347			1983	
v/s Ratio Prot												
v/s Ratio Perm		c0.15			0.09			c0.54			0.36	
v/c Ratio		0.72			0.44			0.83			0.55	
Uniform Delay, d1		26.9			25.2			9.8			7.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		12.3			1.2			4.6			0.4	
Delay (s)		39.3			26.4			14.4			7.4	
Level of Service		D			C			B			A	
Approach Delay (s)		39.3			26.4			14.4			7.4	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	73.2	Sum of lost time (s)	10.4
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	9	8	5	13	5	384	51	18	303	5
Future Volume (Veh/h)	5	5	9	8	5	13	5	384	51	18	303	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	6	6	10	9	6	15	6	447	59	21	352	6
Pedestrians		24			28			20			43	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			2			2			4	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	970	967	399	946	940	548	382			534		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	970	967	399	946	940	548	382			534		
tC, single (s)	7.9	6.5	7.2	7.1	6.5	6.2	4.7			4.2		
tC, 2 stage (s)												
tF (s)	4.2	4.0	4.2	3.5	4.0	3.3	2.7			2.3		
p0 queue free %	96	97	98	96	98	97	99			98		
cM capacity (veh/h)	145	237	465	211	245	505	901			985		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	22	30	512	379
Volume Left	6	9	6	21
Volume Right	10	15	59	6
cSH	249	310	901	985
Volume to Capacity	0.09	0.10	0.01	0.02
Queue Length 95th (m)	2.3	2.6	0.2	0.5
Control Delay (s)	20.9	17.9	0.2	0.7
Lane LOS	C	C	A	A
Approach Delay (s)	20.9	17.9	0.2	0.7
Approach LOS	C	C		

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	45.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	0	25	18	11	37	25	526	0	0	305	9
Future Volume (Veh/h)	9	0	25	18	11	37	25	526	0	0	305	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	9	0	26	19	11	39	26	548	0	0	318	9
Pedestrians		23			12			2			3	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	993	958	348	962	962	563	350			560		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	993	958	348	962	962	563	350			560		
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 %	95	100	96	91	95	92	98			100		
cM capacity (veh/h)	188	244	681	215	243	515	1169			1001		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	35	69	574	327
Volume Left	9	19	26	0
Volume Right	26	39	0	9
cSH	407	330	1169	1700
Volume to Capacity	0.09	0.21	0.02	0.19
Queue Length 95th (m)	2.2	6.2	0.5	0.0
Control Delay (s)	14.7	18.8	0.6	0.0
Lane LOS	B	C	A	
Approach Delay (s)	14.7	18.8	0.6	0.0
Approach LOS	B	C		

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	60.8%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	978	0	0	1153
Future Volume (Veh/h)	0	0	978	0	0	1153
Sign Control	Stop		Free			Free
Grade	0%		3%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	0	0	1099	0	0	1296
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						132
pX, platoon unblocked	0.46					
vC, conflicting volume	2395	1099			1099	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3437	1099			1099	
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)	4	258			635	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	0	1099	1296
Volume Left	0	0	0
Volume Right	0	0	0
cSH	1700	1700	1700
Volume to Capacity	0.00	0.65	0.76
Queue Length 95th (m)	0.0	0.0	0.0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A		

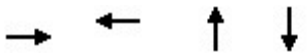
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	248	27	1033	1428
v/c Ratio	0.58	0.06	0.74	0.75
Control Delay	28.3	13.6	16.5	15.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.3	13.6	16.5	15.1
Queue Length 50th (m)	30.7	1.2	60.7	80.8
Queue Length 95th (m)	55.4	7.2	86.3	108.5
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	431	449	1402	1902
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.06	0.74	0.75

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	36	86	5	5	17	69	932	12	20	1071	309
Future Volume (vph)	121	36	86	5	5	17	69	932	12	20	1071	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.92			1.00			0.97	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1678			1600			3488			3403	
Flt Permitted		0.83			0.95			0.68			0.93	
Satd. Flow (perm)		1426			1531			2373			3170	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	123	37	88	5	5	17	70	951	12	20	1093	315
RTOR Reduction (vph)	0	24	0	0	12	0	0	1	0	0	31	0
Lane Group Flow (vph)	0	224	0	0	15	0	0	1032	0	0	1397	0
Confl. Peds. (#/hr)	13		13	13		13	3		9	9		3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	3%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			4			2			2	
Permitted Phases	4			4			2			2		
Actuated Green, G (s)		24.0			24.0			49.6			49.6	
Effective Green, g (s)		24.0			24.0			49.6			49.6	
Actuated g/C Ratio		0.29			0.29			0.59			0.59	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		407			437			1401			1871	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.01			0.44			c0.44	
v/c Ratio		0.55			0.03			0.74			0.75	
Uniform Delay, d1		25.4			21.6			12.5			12.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.8			0.0			3.5			2.8	
Delay (s)		27.2			21.7			16.0			15.4	
Level of Service		C			C			B			B	
Approach Delay (s)		27.2			21.7			16.0			15.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	84.0	Sum of lost time (s)	10.4
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



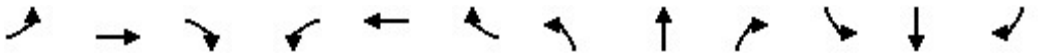
Lane Group	EBT	WBT	NBT	SBT
Lane Group Flow (vph)	248	112	948	1428
v/c Ratio	0.64	0.25	0.67	0.79
Control Delay	22.3	7.3	12.7	15.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.3	7.3	12.7	15.0
Queue Length 50th (m)	18.2	1.9	32.0	51.1
Queue Length 95th (m)	37.5	11.3	68.8	#122.7
Internal Link Dist (m)	274.1	63.7	44.5	142.4
Turn Bay Length (m)				
Base Capacity (vph)	637	707	1444	1841
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.39	0.16	0.66	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	36	86	5	11	94	63	855	12	20	1071	309
Future Volume (vph)	121	36	86	5	11	94	63	855	12	20	1071	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		3%			0%			0%			0%	
Total Lost time (s)		5.0			5.0			5.4			5.4	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.95			0.88			1.00			0.97	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1686			1536			3488			3403	
Flt Permitted		0.81			0.98			0.73			0.94	
Satd. Flow (perm)		1407			1513			2542			3185	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	123	37	88	5	11	96	64	872	12	20	1093	315
RTOR Reduction (vph)	0	35	0	0	66	0	0	1	0	0	33	0
Lane Group Flow (vph)	0	213	0	0	46	0	0	947	0	0	1395	0
Confl. Peds. (#/hr)	13		13	13		13	3		9	9		3
Heavy Vehicles (%)	2%	2%	2%	2%	2%	8%	2%	3%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.0			14.0			31.0			31.0	
Effective Green, g (s)		14.0			14.0			31.0			31.0	
Actuated g/C Ratio		0.25			0.25			0.56			0.56	
Clearance Time (s)		5.0			5.0			5.4			5.4	
Vehicle Extension (s)		3.5			3.5			3.5			3.5	
Lane Grp Cap (vph)		355			382			1422			1782	
v/s Ratio Prot												
v/s Ratio Perm		c0.15			0.03			0.37			c0.44	
v/c Ratio		0.60			0.12			0.67			0.78	
Uniform Delay, d1		18.2			16.0			8.6			9.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.9			0.2			1.2			2.4	
Delay (s)		21.1			16.1			9.8			11.9	
Level of Service		C			B			A			B	
Approach Delay (s)		21.1			16.1			9.8			11.9	
Approach LOS		C			B			A			B	

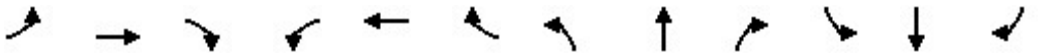
Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	55.4	Sum of lost time (s)	10.4
Intersection Capacity Utilization	100.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	5	5	12	5	37	5	340	25	18	433	5
Future Volume (Veh/h)	5	5	5	12	5	37	5	340	25	18	433	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	6	6	6	13	6	42	6	382	28	20	487	6
Pedestrians		31			24			22			24	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		3			2			2			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1038	1007	543	993	996	444	524			434		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1038	1007	543	993	996	444	524			434		
tC, single (s)	7.9	6.7	7.0	7.1	6.5	6.2	4.9			4.1		
tC, 2 stage (s)												
tF (s)	4.2	4.2	4.0	3.5	4.0	3.3	2.9			2.2		
p0 queue free %	95	97	98	93	97	93	99			98		
cM capacity (veh/h)	124	208	397	197	227	590	722			1103		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	18	61	416	513
Volume Left	6	13	6	20
Volume Right	6	42	28	6
cSH	195	373	722	1103
Volume to Capacity	0.09	0.16	0.01	0.02
Queue Length 95th (m)	2.4	4.6	0.2	0.4
Control Delay (s)	25.3	16.5	0.3	0.5
Lane LOS	D	C	A	A
Approach Delay (s)	25.3	16.5	0.3	0.5
Approach LOS	D	C		

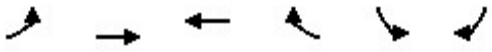
Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	67	41	16	33	21	428	0	0	575	18
Future Volume (Veh/h)	20	0	67	41	16	33	21	428	0	0	575	18
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	0	71	43	17	35	22	451	0	0	605	19
Pedestrians		13			5			4			4	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1170	1128	632	1190	1137	460	637			456		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1170	1128	632	1190	1137	460	637			456		
tC, single (s)	7.2	6.9	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.4	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	100	85	68	91	94	98			100		
cM capacity (veh/h)	139	168	474	135	194	593	936			1100		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	92	95	473	624
Volume Left	21	43	22	0
Volume Right	71	35	0	19
cSH	306	204	936	1700
Volume to Capacity	0.30	0.47	0.02	0.37
Queue Length 95th (m)	9.9	17.9	0.6	0.0
Control Delay (s)	21.7	37.1	0.7	0.0
Lane LOS	C	E	A	
Approach Delay (s)	21.7	37.1	0.7	0.0
Approach LOS	C	E		

Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	56.4%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	45	1011	678	54	20	38
Future Volume (Veh/h)	45	1011	678	54	20	38
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	48	1087	729	58	22	41
Pedestrians		17	1		13	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	800				1412	424
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	800				1412	424
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.3				3.6	3.4
p0 queue free %	94				81	93
cM capacity (veh/h)	785				114	551

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	48	544	544	486	301	63
Volume Left	48	0	0	0	0	22
Volume Right	0	0	0	0	58	41
cSH	785	1700	1700	1700	1700	236
Volume to Capacity	0.06	0.32	0.32	0.29	0.18	0.27
Queue Length 95th (m)	1.6	0.0	0.0	0.0	0.0	8.3
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	25.7
Lane LOS	A					D
Approach Delay (s)	0.4			0.0		25.7
Approach LOS						D

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	889	73	112	610	44	170
Future Volume (Veh/h)	889	73	112	610	44	170
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	946	78	119	649	47	181
Pedestrians				1	4	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked			0.91		0.91	0.91
vC, conflicting volume			1028		1552	517
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			844		1416	285
tC, single (s)			4.2		6.9	7.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			83		51	72
cM capacity (veh/h)			707		96	646

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	631	393	119	324	324	47	181
Volume Left	0	0	119	0	0	47	0
Volume Right	0	78	0	0	0	0	181
cSH	1700	1700	707	1700	1700	96	646
Volume to Capacity	0.37	0.23	0.17	0.19	0.19	0.49	0.28
Queue Length 95th (m)	0.0	0.0	4.8	0.0	0.0	17.0	9.2
Control Delay (s)	0.0	0.0	11.1	0.0	0.0	73.8	12.7
Lane LOS			B			F	B
Approach Delay (s)	0.0		1.7			25.3	
Approach LOS						D	

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	464	838	7	756	203	200
v/c Ratio	0.70	0.36	0.04	0.77	0.58	0.44
Control Delay	20.5	6.4	24.1	32.0	38.2	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	6.4	24.1	32.0	38.2	8.5
Queue Length 50th (m)	39.9	24.2	0.8	57.0	30.6	0.7
Queue Length 95th (m)	96.0	48.5	4.5	93.3	57.6	18.3
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	785	2852	247	1318	584	636
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.29	0.03	0.57	0.35	0.31

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	445	804	0	7	598	128	0	0	0	195	5	187
Future Volume (vph)	445	804	0	7	598	128	0	0	0	195	5	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.98	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1769	3471		1762	3286					1770	1532	
Flt Permitted	0.16	1.00		0.34	1.00					0.95	1.00	
Satd. Flow (perm)	305	3471		624	3286					1770	1532	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	464	838	0	7	623	133	0	0	0	203	5	195
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	156	0
Lane Group Flow (vph)	464	838	0	7	738	0	0	0	0	203	44	0
Confl. Peds. (#/hr)	6		7	7		6	6					6
Confl. Bikes (#/hr)			5									1
Heavy Vehicles (%)	2%	4%	2%	2%	6%	8%	2%	2%	2%	2%	2%	4%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	53.2	53.2		23.5	23.5					15.7	15.7	
Effective Green, g (s)	53.2	53.2		23.5	23.5					15.7	15.7	
Actuated g/C Ratio	0.67	0.67		0.30	0.30					0.20	0.20	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	663	2340		185	978					352	304	
v/s Ratio Prot	c0.22	0.24			0.22						0.03	
v/s Ratio Perm	c0.25			0.01						c0.11		
v/c Ratio	0.70	0.36		0.04	0.75					0.58	0.14	
Uniform Delay, d1	13.8	5.5		19.7	25.1					28.6	26.1	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	3.4	0.1		0.1	3.5					2.5	0.3	
Delay (s)	17.2	5.6		19.8	28.5					31.1	26.3	
Level of Service	B	A		B	C					C	C	
Approach Delay (s)		9.8			28.5			0.0			28.7	
Approach LOS		A			C			A			C	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	15.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	470	12	5	256	21	15
Future Volume (Veh/h)	470	12	5	256	21	15
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	553	14	6	301	25	18
Pedestrians	3			9	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			1	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			572		881	574
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			572		881	574
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		92	96
cM capacity (veh/h)			997		314	513

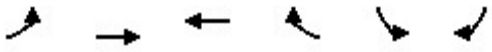
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	567	307	43
Volume Left	0	6	25
Volume Right	14	0	18
cSH	1700	997	375
Volume to Capacity	0.33	0.01	0.11
Queue Length 95th (m)	0.0	0.1	3.1
Control Delay (s)	0.0	0.2	15.8
Lane LOS		A	C
Approach Delay (s)	0.0	0.2	15.8
Approach LOS			C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	33	7	5	26	25	17	92	7	9	46	34
Future Volume (Veh/h)	41	33	7	5	26	25	17	92	7	9	46	34
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	44	35	7	5	28	27	18	98	7	10	49	36
Pedestrians		8			4			9			26	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	300	240	84	262	254	132	93			109		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	300	240	84	262	254	132	93			109		
tC, single (s)	7.1	6.6	6.2	7.1	6.6	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.1	3.3	3.5	4.1	3.3	2.2			2.3		
p0 queue free %	92	94	99	99	95	97	99			99		
cM capacity (veh/h)	579	632	961	636	617	895	1491			1405		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	86	60	123	95
Volume Left	44	5	18	10
Volume Right	7	27	7	36
cSH	620	719	1491	1405
Volume to Capacity	0.14	0.08	0.01	0.01
Queue Length 95th (m)	3.8	2.2	0.3	0.2
Control Delay (s)	11.7	10.5	1.2	0.8
Lane LOS	B	B	A	A
Approach Delay (s)	11.7	10.5	1.2	0.8
Approach LOS	B	B		

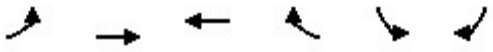
Intersection Summary				
Average Delay	5.1			
Intersection Capacity Utilization	28.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	120	445	253	24	37	79
Future Volume (Veh/h)	120	445	253	24	37	79
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	141	524	298	28	44	93
Pedestrians		3	9		4	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	1		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	330				1131	319
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	330				1131	319
tC, single (s)	4.1				6.7	6.3
tC, 2 stage (s)						
tF (s)	2.2				3.7	3.4
p0 queue free %	88				75	87
cM capacity (veh/h)	1214				177	706

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	665	326	137
Volume Left	141	0	44
Volume Right	0	28	93
cSH	1214	1700	360
Volume to Capacity	0.12	0.19	0.38
Queue Length 95th (m)	3.1	0.0	13.9
Control Delay (s)	2.9	0.0	21.0
Lane LOS	A		C
Approach Delay (s)	2.9	0.0	21.0
Approach LOS			C

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	34	804	1042	77	17	49
Future Volume (Veh/h)	34	804	1042	77	17	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	35	838	1085	80	18	51
Pedestrians		10	1		8	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		1	0		1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1173				1623	600
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1173				1623	600
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				79	88
cM capacity (veh/h)	587				87	437

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	SB 1
Volume Total	35	419	419	723	442	69
Volume Left	35	0	0	0	0	18
Volume Right	0	0	0	0	80	51
cSH	587	1700	1700	1700	1700	214
Volume to Capacity	0.06	0.25	0.25	0.43	0.26	0.32
Queue Length 95th (m)	1.5	0.0	0.0	0.0	0.0	10.7
Control Delay (s)	11.5	0.0	0.0	0.0	0.0	29.7
Lane LOS	B					D
Approach Delay (s)	0.5			0.0		29.7
Approach LOS						D

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	707	98	168	901	42	148
Future Volume (Veh/h)	707	98	168	901	42	148
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	714	99	170	910	42	149
Pedestrians				1	11	
Lane Width (m)				3.6	3.6	
Walking Speed (m/s)				1.2	1.2	
Percent Blockage				0	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)	269					
pX, platoon unblocked			0.98		0.98	0.98
vC, conflicting volume			824		1570	418
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			779		1540	365
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			79		48	76
cM capacity (veh/h)			810		81	613

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	NB 2
Volume Total	476	337	170	455	455	42	149
Volume Left	0	0	170	0	0	42	0
Volume Right	0	99	0	0	0	0	149
cSH	1700	1700	810	1700	1700	81	613
Volume to Capacity	0.28	0.20	0.21	0.27	0.27	0.52	0.24
Queue Length 95th (m)	0.0	0.0	6.3	0.0	0.0	17.7	7.6
Control Delay (s)	0.0	0.0	10.6	0.0	0.0	89.1	12.7
Lane LOS			B			F	B
Approach Delay (s)	0.0		1.7			29.5	
Approach LOS						D	

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	312	733	8	1101	174	311
v/c Ratio	0.64	0.30	0.03	0.82	0.52	0.57
Control Delay	22.1	5.8	17.9	27.7	37.3	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	5.8	17.9	27.7	37.3	8.8
Queue Length 50th (m)	26.1	19.5	0.8	80.6	26.7	0.7
Queue Length 95th (m)	68.0	41.0	4.1	128.4	49.7	22.3
Internal Link Dist (m)		321.7		196.2		97.7
Turn Bay Length (m)	65.0		30.0		60.0	
Base Capacity (vph)	562	2891	352	1753	576	716
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.25	0.02	0.63	0.30	0.43

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	303	711	0	8	854	214	0	0	0	169	5	297
Future Volume (vph)	303	711	0	8	854	214	0	0	0	169	5	297
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Lane Util. Factor	1.00	0.95		1.00	0.95					1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	0.99					1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00					1.00	1.00	
Frt	1.00	1.00		1.00	0.97					1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00					0.95	1.00	
Satd. Flow (prot)	1752	3539		1766	3414					1770	1566	
Flt Permitted	0.11	1.00		0.37	1.00					0.95	1.00	
Satd. Flow (perm)	203	3539		694	3414					1770	1566	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	312	733	0	8	880	221	0	0	0	174	5	306
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	248	0
Lane Group Flow (vph)	312	733	0	8	1079	0	0	0	0	174	63	0
Confl. Peds. (#/hr)	1		3	3		1	1					1
Confl. Bikes (#/hr)			1			5						1
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	NA		Perm	NA					Perm	NA	
Protected Phases	5	2			6						4	
Permitted Phases	2			6						4		
Actuated Green, G (s)	54.5	54.5		31.3	31.3					15.1	15.1	
Effective Green, g (s)	54.5	54.5		31.3	31.3					15.1	15.1	
Actuated g/C Ratio	0.68	0.68		0.39	0.39					0.19	0.19	
Clearance Time (s)	5.0	5.0		5.0	5.0					5.0	5.0	
Vehicle Extension (s)	3.5	3.5		3.5	3.5					3.5	3.5	
Lane Grp Cap (vph)	493	2423		272	1342					335	297	
v/s Ratio Prot	c0.14	0.21			c0.32						0.04	
v/s Ratio Perm	0.29			0.01						c0.10		
v/c Ratio	0.63	0.30		0.03	0.80					0.52	0.21	
Uniform Delay, d1	16.2	5.0		14.8	21.4					29.0	27.2	
Progression Factor	1.00	1.00		1.00	1.00					1.00	1.00	
Incremental Delay, d2	2.8	0.1		0.1	3.7					1.6	0.4	
Delay (s)	18.9	5.1		14.9	25.1					30.6	27.7	
Level of Service	B	A		B	C					C	C	
Approach Delay (s)		9.2			25.1			0.0			28.7	
Approach LOS		A			C			A			C	

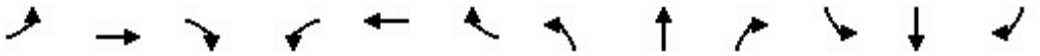
Intersection Summary			
HCM 2000 Control Delay	19.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	79.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	318	18	8	389	21	24
Future Volume (Veh/h)	318	18	8	389	21	24
Sign Control	Free			Free	Stop	
Grade	0%			-3%	-6%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	349	20	9	427	23	26
Pedestrians	1			5	5	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	0			0	0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			374		810	369
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			374		810	369
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		93	96
cM capacity (veh/h)			1180		346	671

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	369	436	49
Volume Left	0	9	23
Volume Right	20	0	26
cSH	1700	1180	466
Volume to Capacity	0.22	0.01	0.11
Queue Length 95th (m)	0.0	0.2	2.8
Control Delay (s)	0.0	0.2	13.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.2	13.6
Approach LOS			B

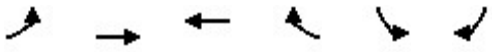
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	38	15	20	38	38	21	83	15	9	143	38
Future Volume (Veh/h)	50	38	15	20	38	38	21	83	15	9	143	38
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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 (vph)	54	41	16	22	41	41	23	90	16	10	155	41
Pedestrians		6			3			6			19	
Lane Width (m)		3.6			3.6			3.6			3.6	
Walking Speed (m/s)		1.2			1.2			1.2			1.2	
Percent Blockage		1			0			1			2	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	426	356	188	385	369	120	202			109		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	426	356	188	385	369	120	202			109		
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	93	98	96	92	96	98			99		
cM capacity (veh/h)	459	552	846	514	543	914	1363			1478		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	111	104	129	206
Volume Left	54	22	23	10
Volume Right	16	41	16	41
cSH	527	638	1363	1478
Volume to Capacity	0.21	0.16	0.02	0.01
Queue Length 95th (m)	6.3	4.6	0.4	0.2
Control Delay (s)	13.7	11.7	1.5	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	13.7	11.7	1.5	0.4
Approach LOS	B	B		

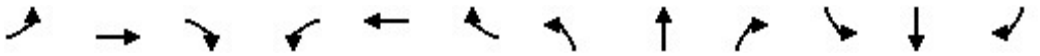
Intersection Summary				
Average Delay	5.5			
Intersection Capacity Utilization	32.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	309	372	38	28	143
Future Volume (Veh/h)	51	309	372	38	28	143
Sign Control		Free	Free		Stop	
Grade		0%	0%		3%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	56	340	409	42	31	157
Pedestrians		1	5		1	
Lane Width (m)		3.6	3.6		3.6	
Walking Speed (m/s)		1.2	1.2		1.2	
Percent Blockage		0	0		0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	452				888	432
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	452				888	432
tC, single (s)	4.1				6.5	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.3
p0 queue free %	95				89	75
cM capacity (veh/h)	1108				292	620

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	396	451	188
Volume Left	56	0	31
Volume Right	0	42	157
cSH	1108	1700	523
Volume to Capacity	0.05	0.27	0.36
Queue Length 95th (m)	1.3	0.0	13.0
Control Delay (s)	1.6	0.0	15.7
Lane LOS	A		C
Approach Delay (s)	1.6	0.0	15.7
Approach LOS			C

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	5	12	5	5	5	24	574	5	7	300	48
Future Volume (Veh/h)	44	5	12	5	5	5	24	574	5	7	300	48
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	48	5	13	5	5	5	26	631	5	8	330	53
Pedestrians		3			4							
Lane Width (m)		3.6			3.6							
Walking Speed (m/s)		1.2			1.2							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1066	1068	360	1051	1092	638	386			640		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1066	1068	360	1051	1092	638	386			640		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	73	98	98	97	98	99	98			99		
cM capacity (veh/h)	180	214	663	191	207	476	1122			941		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	66	15	26	636	8	383
Volume Left	48	5	26	0	8	0
Volume Right	13	5	0	5	0	53
cSH	213	247	1122	1700	941	1700
Volume to Capacity	0.31	0.06	0.02	0.37	0.01	0.23
Queue Length 95th (m)	10.1	1.5	0.6	0.0	0.2	0.0
Control Delay (s)	29.2	20.5	8.3	0.0	8.9	0.0
Lane LOS	D	C	A		A	
Approach Delay (s)	29.2	20.5	0.3		0.2	
Approach LOS	D	C				

Intersection Summary				
Average Delay	2.2			
Intersection Capacity Utilization	44.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	66	15	26	636	8	383
v/c Ratio	0.18	0.04	0.03	0.41	0.01	0.25
Control Delay	13.8	13.2	3.3	4.3	3.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	13.2	3.3	4.3	3.3	3.2
Queue Length 50th (m)	2.0	0.4	0.0	0.0	0.0	0.0
Queue Length 95th (m)	12.0	4.4	2.8	50.5	1.3	24.4
Internal Link Dist (m)	125.1	96.1		174.8		115.5
Turn Bay Length (m)			30.0		25.0	
Base Capacity (vph)	903	928	762	1523	610	1493
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.03	0.42	0.01	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	5	12	5	5	5	24	574	5	7	300	48
Future Volume (vph)	44	5	12	5	5	5	24	574	5	7	300	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			0%	
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.97			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.96			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1607			1776		1623	1825		1767	1786	
Flt Permitted		1.00			0.95		0.53	1.00		0.39	1.00	
Satd. Flow (perm)		1666			1720		914	1825		730	1786	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	48	5	13	5	5	5	26	631	5	8	330	53
RTOR Reduction (vph)	0	12	0	0	5	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	54	0	0	10	0	26	636	0	8	377	0
Confl. Peds. (#/hr)							3		4	4		3
Heavy Vehicles (%)	12%	2%	11%	2%	2%	2%	11%	4%	2%	2%	4%	3%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		2.8			2.8		26.9	26.9		26.9	26.9	
Effective Green, g (s)		2.8			2.8		26.9	26.9		26.9	26.9	
Actuated g/C Ratio		0.07			0.07		0.70	0.70		0.70	0.70	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		120			124		635	1268		507	1241	
v/s Ratio Prot								c0.35			0.21	
v/s Ratio Perm		c0.03			0.01		0.03			0.01		
v/c Ratio		0.45			0.08		0.04	0.50		0.02	0.30	
Uniform Delay, d1		17.2			16.8		1.9	2.8		1.8	2.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.7			0.3		0.0	0.3		0.0	0.1	
Delay (s)		19.9			17.0		1.9	3.1		1.8	2.4	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		19.9			17.0			3.0			2.4	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	38.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

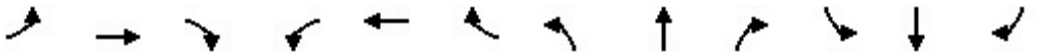
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	5	40	5	8	5	166	524	5	5	215	80
Future Volume (Veh/h)	62	5	40	5	8	5	166	524	5	5	215	80
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	69	6	44	6	9	6	184	582	6	6	239	89
Pedestrians		2			6			5				
Lane Width (m)		3.6			3.6			3.6				
Walking Speed (m/s)		1.2			1.2			1.2				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	967	1260	171	1142	1301	300	330			594		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	967	1260	171	1142	1301	300	330			594		
tC, single (s)	8.0	6.5	7.2	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	54	96	95	95	93	99	85			99		
cM capacity (veh/h)	148	142	805	124	135	693	1224			973		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	119	21	184	388	200	6	159	169
Volume Left	69	6	184	0	0	6	0	0
Volume Right	44	6	0	0	6	0	0	89
cSH	212	169	1224	1700	1700	973	1700	1700
Volume to Capacity	0.56	0.12	0.15	0.23	0.12	0.01	0.09	0.10
Queue Length 95th (m)	24.4	3.3	4.2	0.0	0.0	0.1	0.0	0.0
Control Delay (s)	41.8	29.2	8.5	0.0	0.0	8.7	0.0	0.0
Lane LOS	E	D	A			A		
Approach Delay (s)	41.8	29.2	2.0			0.2		
Approach LOS	E	D						

Intersection Summary				
Average Delay	5.8			
Intersection Capacity Utilization	40.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	119	21	184	588	6	328
v/c Ratio	0.36	0.05	0.26	0.25	0.01	0.14
Control Delay	10.7	8.8	6.6	4.8	5.2	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	8.8	6.6	4.8	5.2	3.5
Queue Length 50th (m)	3.7	0.7	5.2	8.6	0.2	3.1
Queue Length 95th (m)	12.3	3.8	17.1	19.1	1.3	8.8
Internal Link Dist (m)	128.9	24.9		103.9		194.7
Turn Bay Length (m)			35.0		90.0	
Base Capacity (vph)	736	933	729	2428	564	2363
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.02	0.25	0.24	0.01	0.14

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	5	40	5	8	5	166	524	5	5	215	80
Future Volume (vph)	62	5	40	5	8	5	166	524	5	5	215	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-6%			0%			0%	
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.96		1.00	1.00		1.00	0.96	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1476			1817		1768	3433		1765	3304	
Flt Permitted		0.81			0.86		0.55	1.00		0.43	1.00	
Satd. Flow (perm)		1229			1592		1030	3433		799	3304	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	69	6	44	6	9	6	184	582	6	6	239	89
RTOR Reduction (vph)	0	38	0	0	5	0	0	1	0	0	37	0
Lane Group Flow (vph)	0	81	0	0	16	0	184	587	0	6	291	0
Confl. Peds. (#/hr)			5	5			2		6	6		2
Heavy Vehicles (%)	23%	2%	13%	2%	2%	2%	2%	5%	2%	2%	5%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.9			4.9		19.6	19.6		19.6	19.6	
Effective Green, g (s)		4.9			4.9		19.6	19.6		19.6	19.6	
Actuated g/C Ratio		0.15			0.15		0.59	0.59		0.59	0.59	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		179			232		602	2008		467	1933	
v/s Ratio Prot								0.17			0.09	
v/s Ratio Perm		c0.07			0.01		c0.18			0.01		
v/c Ratio		0.45			0.07		0.31	0.29		0.01	0.15	
Uniform Delay, d1		13.1			12.3		3.5	3.5		2.9	3.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.8			0.1		0.3	0.1		0.0	0.0	
Delay (s)		14.9			12.5		3.8	3.6		2.9	3.2	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		14.9			12.5			3.6			3.2	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	33.5	Sum of lost time (s)	9.0
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	64	226	816	98	425
v/c Ratio	0.20	0.52	0.73	0.37	0.37
Control Delay	17.6	9.7	11.0	10.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	9.7	11.0	10.0	5.8
Queue Length 50th (m)	3.8	1.8	32.1	2.9	12.4
Queue Length 95th (m)	13.5	17.4	88.6	13.8	33.0
Internal Link Dist (m)	139.7		129.3		141.4
Turn Bay Length (m)		30.0		25.0	
Base Capacity (vph)	737	746	1406	329	1429
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.30	0.58	0.30	0.30

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	59	208	662	88	90	391
Future Volume (vph)	59	208	662	88	90	391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		0%			0%
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1762	1519	1828		1769	1863
Flt Permitted	0.95	1.00	1.00		0.23	1.00
Satd. Flow (perm)	1762	1519	1828		430	1863
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	226	720	96	98	425
RTOR Reduction (vph)	0	159	7	0	0	0
Lane Group Flow (vph)	64	67	809	0	98	425
Confl. Peds. (#/hr)		6		2	2	
Heavy Vehicles (%)	4%	5%	2%	2%	2%	2%
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	7.9	7.9	26.8		26.8	26.8
Effective Green, g (s)	7.9	7.9	26.8		26.8	26.8
Actuated g/C Ratio	0.18	0.18	0.61		0.61	0.61
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	318	274	1121		263	1142
v/s Ratio Prot	0.04		c0.44			0.23
v/s Ratio Perm		c0.04			0.23	
v/c Ratio	0.20	0.24	0.72		0.37	0.37
Uniform Delay, d1	15.2	15.3	5.9		4.2	4.2
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.3	0.5	2.3		0.9	0.2
Delay (s)	15.5	15.8	8.2		5.1	4.4
Level of Service	B	B	A		A	A
Approach Delay (s)	15.7		8.2			4.6
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	43.7	Sum of lost time (s)	9.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	5	44	5	5	15	28	439	5	9	495	16
Future Volume (Veh/h)	104	5	44	5	5	15	28	439	5	9	495	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-3%			0%			0%	
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 (vph)	113	5	48	5	5	16	30	477	5	10	538	17
Pedestrians		1										
Lane Width (m)		3.6										
Walking Speed (m/s)		1.2										
Percent Blockage		0										
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1123	1110	548	1148	1116	480	556			482		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1123	1110	548	1148	1116	480	556			482		
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 %	33	98	91	97	97	97	97			99		
cM capacity (veh/h)	169	201	534	153	200	586	1014			1081		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	166	26	30	482	10	555
Volume Left	113	5	30	0	10	0
Volume Right	48	16	0	5	0	17
cSH	212	306	1014	1700	1081	1700
Volume to Capacity	0.78	0.09	0.03	0.28	0.01	0.33
Queue Length 95th (m)	44.2	2.2	0.7	0.0	0.2	0.0
Control Delay (s)	64.6	17.9	8.7	0.0	8.4	0.0
Lane LOS	F	C	A		A	
Approach Delay (s)	64.6	17.9	0.5		0.1	
Approach LOS	F	C				

Intersection Summary				
Average Delay	9.1			
Intersection Capacity Utilization	49.1%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	166	26	30	482	10	555
v/c Ratio	0.45	0.07	0.07	0.43	0.02	0.49
Control Delay	12.7	7.2	6.1	7.7	5.7	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	7.2	6.1	7.7	5.7	8.5
Queue Length 50th (m)	5.8	0.5	0.8	16.6	0.3	20.2
Queue Length 95th (m)	16.5	3.9	4.2	42.7	2.0	51.6
Internal Link Dist (m)	125.1	96.1		174.8		115.5
Turn Bay Length (m)			30.0		25.0	
Base Capacity (vph)	738	825	452	1141	519	1138
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.03	0.07	0.42	0.02	0.49

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	5	44	5	5	15	28	439	5	9	495	16
Future Volume (vph)	104	5	44	5	5	15	28	439	5	9	495	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-3%			0%			0%	
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.96			0.92		1.00	1.00		1.00	1.00	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1726			1717		1769	1860		1770	1853	
Flt Permitted		0.78			0.92		0.40	1.00		0.45	1.00	
Satd. Flow (perm)		1393			1591		737	1860		847	1853	
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)	113	5	48	5	5	16	30	477	5	10	538	17
RTOR Reduction (vph)	0	39	0	0	13	0	0	0	0	0	2	0
Lane Group Flow (vph)	0	127	0	0	13	0	30	482	0	10	553	0
Confl. Peds. (#/hr)							1					1
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.2			7.2		20.6	20.6		20.6	20.6	
Effective Green, g (s)		7.2			7.2		20.6	20.6		20.6	20.6	
Actuated g/C Ratio		0.20			0.20		0.56	0.56		0.56	0.56	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		272			311		412	1041		474	1037	
v/s Ratio Prot								0.26			c0.30	
v/s Ratio Perm		c0.09			0.01		0.04			0.01		
v/c Ratio		0.47			0.04		0.07	0.46		0.02	0.53	
Uniform Delay, d1		13.1			12.0		3.7	4.8		3.6	5.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3			0.1		0.1	0.3		0.0	0.5	
Delay (s)		14.4			12.1		3.8	5.1		3.6	5.6	
Level of Service		B			B		A	A		A	A	
Approach Delay (s)		14.4			12.1			5.1			5.6	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	36.8	Sum of lost time (s)	9.0
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	12	245	8	5	9	88	322	5	18	445	61
Future Volume (Veh/h)	117	12	245	8	5	9	88	322	5	18	445	61
Sign Control		Stop			Stop			Free			Free	
Grade		0%			-6%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	129	13	269	9	5	10	97	354	5	20	489	67
Pedestrians					2			3				
Lane Width (m)					3.6			3.6				
Walking Speed (m/s)					1.2			1.2				
Percent Blockage					0			0				
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	946	1118	281	1116	1148	182	556			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	946	1118	281	1116	1148	182	556			361		
tC, single (s)	7.6	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 %	31	93	62	90	97	99	90			98		
cM capacity (veh/h)	188	183	714	88	176	829	1011			1192		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	411	24	97	236	123	20	326	230
Volume Left	129	9	97	0	0	20	0	0
Volume Right	269	10	0	0	5	0	0	67
cSH	363	167	1011	1700	1700	1192	1700	1700
Volume to Capacity	1.13	0.14	0.10	0.14	0.07	0.02	0.19	0.14
Queue Length 95th (m)	126.3	3.9	2.5	0.0	0.0	0.4	0.0	0.0
Control Delay (s)	121.9	30.1	8.9	0.0	0.0	8.1	0.0	0.0
Lane LOS	F	D	A			A		
Approach Delay (s)	121.9	30.1	1.9			0.3		
Approach LOS	F	D						

Intersection Summary				
Average Delay	35.4			
Intersection Capacity Utilization	56.8%	ICU Level of Service	B	
Analysis Period (min)	15			

Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	411	24	97	359	20	556
v/c Ratio	0.65	0.05	0.32	0.28	0.05	0.43
Control Delay	9.7	6.2	11.7	8.2	8.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	6.2	11.7	8.2	8.2	8.6
Queue Length 50th (m)	6.0	0.4	3.0	5.6	0.6	8.7
Queue Length 95th (m)	28.0	3.6	13.9	16.7	3.9	24.5
Internal Link Dist (m)	128.9	24.9		103.9		194.7
Turn Bay Length (m)			35.0		90.0	
Base Capacity (vph)	993	917	506	2164	612	2145
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.03	0.19	0.17	0.03	0.26

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	12	245	8	5	9	88	322	5	18	445	61
Future Volume (vph)	117	12	245	8	5	9	88	322	5	18	445	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			-6%			0%			0%	
Total Lost time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.91			0.94		1.00	1.00		1.00	0.98	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1647			1777		1770	3531		1768	3475	
Flt Permitted		0.89			0.82		0.44	1.00		0.54	1.00	
Satd. Flow (perm)		1482			1491		827	3531		1000	3475	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	129	13	269	9	5	10	97	354	5	20	489	67
RTOR Reduction (vph)	0	148	0	0	7	0	0	3	0	0	25	0
Lane Group Flow (vph)	0	263	0	0	17	0	97	356	0	20	531	0
Confl. Peds. (#/hr)			3	3					2	2		
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.1			10.1		11.3	11.3		11.3	11.3	
Effective Green, g (s)		10.1			10.1		11.3	11.3		11.3	11.3	
Actuated g/C Ratio		0.33			0.33		0.37	0.37		0.37	0.37	
Clearance Time (s)		4.5			4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		492			495		307	1312		371	1291	
v/s Ratio Prot								0.10			c0.15	
v/s Ratio Perm		c0.18			0.01		0.12			0.02		
v/c Ratio		0.54			0.03		0.32	0.27		0.05	0.41	
Uniform Delay, d1		8.2			6.9		6.8	6.7		6.1	7.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1			0.0		0.6	0.1		0.1	0.2	
Delay (s)		9.4			6.9		7.4	6.8		6.2	7.3	
Level of Service		A			A		A	A		A	A	
Approach Delay (s)		9.4			6.9			6.9			7.3	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	30.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	48	204	828	267	960
v/c Ratio	0.22	0.55	0.62	0.70	0.70
Control Delay	32.6	11.7	6.4	17.1	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	11.7	6.4	17.1	8.2
Queue Length 50th (m)	5.2	0.0	33.7	12.7	46.0
Queue Length 95th (m)	17.2	18.6	77.5	#64.5	106.5
Internal Link Dist (m)	139.7		129.3		141.4
Turn Bay Length (m)		30.0		25.0	
Base Capacity (vph)	524	602	1657	473	1687
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.09	0.34	0.50	0.56	0.57

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	44	186	645	108	243	874
Future Volume (vph)	44	186	645	108	243	874
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-3%		0%			0%
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1796	1569	1827		1770	1863
Flt Permitted	0.95	1.00	1.00		0.28	1.00
Satd. Flow (perm)	1796	1569	1827		522	1863
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	48	204	709	119	267	960
RTOR Reduction (vph)	0	179	6	0	0	0
Lane Group Flow (vph)	48	25	822	0	267	960
Confl. Peds. (#/hr)		2				
Turn Type	Prot	Perm	NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases		8			6	
Actuated Green, G (s)	7.9	7.9	47.5		47.5	47.5
Effective Green, g (s)	7.9	7.9	47.5		47.5	47.5
Actuated g/C Ratio	0.12	0.12	0.74		0.74	0.74
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	220	192	1347		385	1374
v/s Ratio Prot	c0.03		0.45			c0.52
v/s Ratio Perm		0.02			0.51	
v/c Ratio	0.22	0.13	0.61		0.69	0.70
Uniform Delay, d1	25.5	25.2	4.0		4.5	4.6
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.5	0.3	0.8		5.3	1.6
Delay (s)	26.0	25.5	4.9		9.9	6.1
Level of Service	C	C	A		A	A
Approach Delay (s)	25.6		4.9			7.0
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	64.4	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	417	8	22	334	5	65
Future Volume (Veh/h)	417	8	22	334	5	65
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	479	9	25	384	6	75
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			488		918	484
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			488		918	484
tC, single (s)			4.3		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.4		3.5	3.3
p0 queue free %			97		98	87
cM capacity (veh/h)			997		294	579

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	488	409	81
Volume Left	0	25	6
Volume Right	9	0	75
cSH	1700	997	540
Volume to Capacity	0.29	0.03	0.15
Queue Length 95th (m)	0.0	0.6	4.2
Control Delay (s)	0.0	0.8	12.8
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	12.8
Approach LOS			B

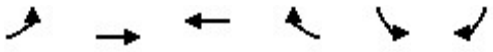
Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	46.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	75	61	214	251	9
Future Volume (Veh/h)	11	75	61	214	251	9
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	13	88	72	252	295	11
Pedestrians	14			6		
Lane Width (m)	3.6			3.6		
Walking Speed (m/s)	1.2			1.2		
Percent Blockage	1			1		
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	710	320	320			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	710	320	320			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	96	88	94			
cM capacity (veh/h)	341	708	1214			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	101	324	306
Volume Left	13	72	0
Volume Right	88	0	11
cSH	622	1214	1700
Volume to Capacity	0.16	0.06	0.18
Queue Length 95th (m)	4.6	1.5	0.0
Control Delay (s)	11.9	2.3	0.0
Lane LOS	B	A	
Approach Delay (s)	11.9	2.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	66	128	44	32	55	16
Future Volume (Veh/h)	66	128	44	32	55	16
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	78	151	52	38	65	19
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	90				378	71
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	90				378	71
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				89	98
cM capacity (veh/h)	1505				592	992

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	229	90	84
Volume Left	78	0	65
Volume Right	0	38	19
cSH	1505	1700	652
Volume to Capacity	0.05	0.05	0.13
Queue Length 95th (m)	1.3	0.0	3.5
Control Delay (s)	2.8	0.0	11.3
Lane LOS	A		B
Approach Delay (s)	2.8	0.0	11.3
Approach LOS			B

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	27.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	373	7	73	538	12	50
Future Volume (Veh/h)	373	7	73	538	12	50
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	439	8	86	633	14	59
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			447		1248	443
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			447		1248	443
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		92	90
cM capacity (veh/h)			1113		177	613

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	447	719	73
Volume Left	0	86	14
Volume Right	8	0	59
cSH	1700	1113	416
Volume to Capacity	0.26	0.08	0.18
Queue Length 95th (m)	0.0	2.0	5.0
Control Delay (s)	0.0	1.9	15.5
Lane LOS		A	C
Approach Delay (s)	0.0	1.9	15.5
Approach LOS			C

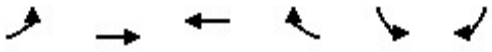
Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	41	41	158	145	5
Future Volume (Veh/h)	9	41	41	158	145	5
Sign Control	Stop			Free	Free	
Grade	6%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	48	48	186	171	6
Pedestrians	6			5	1	
Lane Width (m)	3.6			3.6	3.6	
Walking Speed (m/s)	1.2			1.2	1.2	
Percent Blockage	1			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	463	185	183			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	463	185	183			
tC, single (s)	6.6	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.3	2.2			
p0 queue free %	98	94	97			
cM capacity (veh/h)	513	849	1385			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	59	234	177
Volume Left	11	48	0
Volume Right	48	0	6
cSH	757	1385	1700
Volume to Capacity	0.08	0.03	0.10
Queue Length 95th (m)	2.0	0.9	0.0
Control Delay (s)	10.2	1.8	0.0
Lane LOS	B	A	
Approach Delay (s)	10.2	1.8	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	34.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	79	112	46	49	75
Future Volume (Veh/h)	22	79	112	46	49	75
Sign Control		Free	Free		Stop	
Grade		-3%	3%		-6%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	25	89	126	52	55	84
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	178				291	152
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	178				291	152
tC, single (s)	4.2				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.3				3.5	3.3
p0 queue free %	98				92	91
cM capacity (veh/h)	1374				686	894

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	114	178	139
Volume Left	25	0	55
Volume Right	0	52	84
cSH	1374	1700	798
Volume to Capacity	0.02	0.10	0.17
Queue Length 95th (m)	0.4	0.0	5.0
Control Delay (s)	1.8	0.0	10.5
Lane LOS	A		B
Approach Delay (s)	1.8	0.0	10.5
Approach LOS			B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	31.4%	ICU Level of Service	A
Analysis Period (min)	15		



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	521	443	363	186	1347
v/c Ratio	0.61	0.71	0.39	0.32	0.78
Control Delay	20.7	30.1	9.7	16.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	30.1	9.7	16.5	11.6
Queue Length 50th (m)	24.2	22.7	21.6	14.1	39.3
Queue Length 95th (m)	37.4	#45.8	37.0	31.3	#88.2
Internal Link Dist (m)	122.7		211.1	210.1	
Turn Bay Length (m)		175.0			90.0
Base Capacity (vph)	1155	624	1101	601	1714
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.45	0.71	0.33	0.31	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	417	63	408	334	171	1239
Future Volume (vph)	417	63	408	334	171	1239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.5	4.5	4.5
Lane Util. Factor	0.95		0.97	1.00	1.00	0.88
Frt	0.98		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3441		3400	1845	1770	2733
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3441		3400	1845	1770	2733
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	453	68	443	363	186	1347
RTOR Reduction (vph)	21	0	0	0	0	108
Lane Group Flow (vph)	500	0	443	363	186	1239
Heavy Vehicles (%)	3%	2%	3%	3%	2%	4%
Turn Type	NA		Prot	NA	Prot	pt+ov
Protected Phases	4		3	8	2	2 3
Permitted Phases						
Actuated Green, G (s)	13.4		10.0	27.9	17.8	32.3
Effective Green, g (s)	13.4		10.0	27.9	17.8	32.3
Actuated g/C Ratio	0.24		0.18	0.51	0.33	0.59
Clearance Time (s)	4.5		4.5	4.5	4.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	842		621	941	575	1613
v/s Ratio Prot	c0.15		0.13	0.20	0.11	c0.45
v/s Ratio Perm						
v/c Ratio	0.59		0.71	0.39	0.32	0.77
Uniform Delay, d1	18.2		21.0	8.2	13.9	8.4
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1		3.9	0.3	0.3	2.3
Delay (s)	19.4		24.9	8.4	14.2	10.7
Level of Service	B		C	A	B	B
Approach Delay (s)	19.4			17.5	11.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	54.7	Sum of lost time (s)	13.5
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	601	1393	585	129	872
v/c Ratio	0.84	0.89	0.44	0.42	0.45
Control Delay	45.0	33.0	7.2	40.7	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	33.0	7.2	40.7	6.5
Queue Length 50th (m)	55.2	130.4	43.9	23.5	32.8
Queue Length 95th (m)	#82.5	#168.2	63.4	41.7	45.1
Internal Link Dist (m)	122.7		211.1	210.1	
Turn Bay Length (m)		175.0			90.0
Base Capacity (vph)	768	1670	1412	342	2000
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.78	0.83	0.41	0.38	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	373	180	1282	538	119	802
Future Volume (vph)	373	180	1282	538	119	802
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5		5.5	5.5	5.5	5.5
Lane Util. Factor	0.95		0.97	1.00	1.00	0.88
Frt	0.95		1.00	1.00	1.00	0.85
Flt Protected	1.00		0.95	1.00	0.95	1.00
Satd. Flow (prot)	3344		3433	1863	1770	2760
Flt Permitted	1.00		0.95	1.00	0.95	1.00
Satd. Flow (perm)	3344		3433	1863	1770	2760
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	405	196	1393	585	129	872
RTOR Reduction (vph)	59	0	0	0	0	40
Lane Group Flow (vph)	542	0	1393	585	129	832
Heavy Vehicles (%)	3%	2%	2%	2%	2%	3%
Turn Type	NA		Prot	NA	Prot	pt+ov
Protected Phases	4		3	8	2	2 3
Permitted Phases						
Actuated Green, G (s)	18.5		43.0	67.0	16.5	65.0
Effective Green, g (s)	18.5		43.0	67.0	16.5	65.0
Actuated g/C Ratio	0.20		0.46	0.71	0.17	0.69
Clearance Time (s)	5.5		5.5	5.5	5.5	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	654		1562	1320	309	1898
v/s Ratio Prot	c0.16		c0.41	0.31	0.07	c0.30
v/s Ratio Perm						
v/c Ratio	0.83		0.89	0.44	0.42	0.44
Uniform Delay, d1	36.5		23.6	5.8	34.7	6.6
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	8.6		6.9	0.2	0.9	0.2
Delay (s)	45.0		30.5	6.1	35.6	6.8
Level of Service	D		C	A	D	A
Approach Delay (s)	45.0			23.3	10.5	
Approach LOS	D			C	B	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	16.5
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			