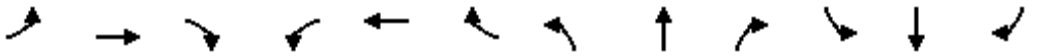
Appendix B-3: Traffic Mitigation Analysis

Mitigated Build Alternative Level of Service Results

(Proposed Mitigations within Existing Curb-to-Curb Width)

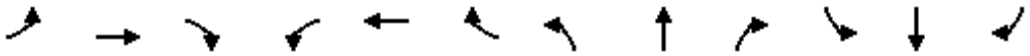
HCM Signalized Intersection Capacity Analysis
1001: Ashland Ave. □ W Irving Park Rd.

8/8/2013



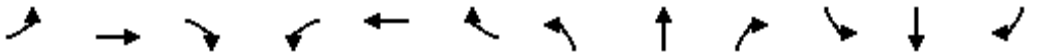
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	216	906	138	128	910	39	0	569	72	0	796	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.50	1.00	0.98			1.00	0.63		1.00	0.79
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	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1565	3040	685	1550	3070			1228	622		1550	1019
Flt Permitted	0.10	1.00	1.00	0.11	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	161	3040	685	172	3070			1228	622		1550	1019
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	1.00	0.91	0.91	1.00	0.91	0.91
Adj. Flow (vph)	237	996	152	141	1000	43	0	625	79	0	875	122
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	237	996	152	141	1043	0	0	625	79	0	875	122
Confl. Peds. (#/hr)	239		202	202		239			378			144
Confl. Bikes (#/hr)						1						3
Heavy Vehicles (%)	2%	5%	5%	3%	1%	3%	2%	2%	6%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								36	36		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	52.0	42.0	42.0	45.0	38.0			68.0	68.0		68.0	68.0
Effective Green, g (s)	52.0	42.0	42.0	45.0	38.0			68.0	68.0		68.0	68.0
Actuated g/C Ratio	0.40	0.32	0.32	0.35	0.29			0.52	0.52		0.52	0.52
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	183	982	221	133	897			642	325		810	533
v/s Ratio Prot	c0.11	0.33		0.06	0.34			0.51			c0.56	
v/s Ratio Perm	c0.41		0.22	0.31					0.13			0.12
v/c Ratio	1.30	1.01	0.69	1.06	1.16			0.97	0.24		1.08	0.23
Uniform Delay, d1	35.8	44.0	38.3	36.9	46.0			30.1	16.9		31.0	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.80	0.81		1.00	1.00
Incremental Delay, d2	167.1	32.3	6.9	95.0	85.5			14.3	0.5		55.6	1.0
Delay (s)	202.9	76.3	45.2	131.9	131.5			38.4	14.2		86.6	17.8
Level of Service	F	E	D	F	F			D	B		F	B
Approach Delay (s)		94.6			131.6			35.7			78.1	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM 2000 Control Delay	91.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	96.7%	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												
Volume (vph)	56	92	48	0	0	0	0	722	36	0	660	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.95						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1416						1124			1208	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1416						1124			1208	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.97	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	62	101	53	0	0	0	0	793	40	0	725	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	216	0	0	0	0	0	833	0	0	733	0
Confl. Peds. (#/hr)	62		25			62			19			16
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	4%	3%	3%	2%	0%
Parking (#/hr)								44			38	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		22.0						100.0			100.0	
Effective Green, g (s)		22.0						100.0			100.0	
Actuated g/C Ratio		0.17						0.77			0.77	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		239						864			929	
v/s Ratio Prot								c0.74			0.61	
v/s Ratio Perm		0.15										
v/c Ratio		0.90						0.96			0.79	
Uniform Delay, d1		53.0						13.4			8.8	
Progression Factor		1.00						0.87			1.45	
Incremental Delay, d2		37.8						21.3			2.2	
Delay (s)		90.7						32.9			15.0	
Level of Service		F						C			B	
Approach Delay (s)		90.7			0.0			32.9			15.0	
Approach LOS		F			A			C			B	

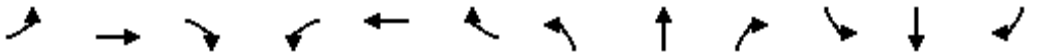
Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	566	65	136	507	31	0	354	47	0	616	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	10	10	9	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	0.89
Flpb, ped/bikes	0.98	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1490	2838		1441	2911			1143	835		1250	940
Flt Permitted	0.33	1.00		0.27	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	515	2838		408	2911			1143	835		1250	940
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	192	622	71	149	557	34	0	389	52	0	677	51
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	192	693	0	149	591	0	0	389	52	0	677	51
Confl. Peds. (#/hr)	28		11	11		28			16			49
Confl. Bikes (#/hr)			2			1			1			2
Heavy Vehicles (%)	1%	7%	0%	10%	4%	10%	8%	5%	17%	2%	3%	4%
Parking (#/hr)								42	42		32	32
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	50.0	50.0		50.0	50.0			71.0	71.0		71.0	71.0
Effective Green, g (s)	50.0	50.0		50.0	50.0			71.0	71.0		71.0	71.0
Actuated g/C Ratio	0.38	0.38		0.38	0.38			0.55	0.55		0.55	0.55
Clearance Time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	198	1091		156	1119			624	456		682	513
v/s Ratio Prot		0.24			0.20			0.34			c0.54	
v/s Ratio Perm	c0.37			0.37					0.06			0.05
v/c Ratio	0.97	0.64		0.96	0.53			0.62	0.11		0.99	0.10
Uniform Delay, d1	39.3	32.6		38.9	30.9			20.3	14.3		29.2	14.2
Progression Factor	1.00	1.00		1.00	1.00			0.75	0.87		0.76	0.94
Incremental Delay, d2	54.5	1.2		58.2	0.5			3.9	0.4		24.5	0.2
Delay (s)	93.8	33.8		97.1	31.3			19.2	12.9		46.9	13.5
Level of Service	F	C		F	C			B	B		D	B
Approach Delay (s)		46.8			44.6			18.5			44.5	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

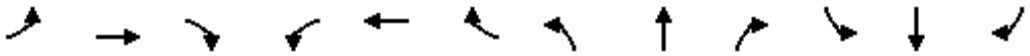
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	92	197	64	0	464	0	0	614	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	4.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.97			1.00			1.00	0.87
Flpb, ped/bikes					0.99			1.00			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.99			1.00			1.00	1.00
Satd. Flow (prot)					1606			1428			1126	841
Flt Permitted					0.99			1.00			1.00	1.00
Satd. Flow (perm)					1606			1428			1126	841
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	101	216	70	0	510	0	0	675	60
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	387	0	0	510	0	0	675	60
Confl. Peds. (#/hr)			13	13		43			18			20
Confl. Bikes (#/hr)			2			1						4
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	6%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								6			48	48
Turn Type				Perm	NA			NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8								6
Actuated Green, G (s)					35.0			87.0			87.0	87.0
Effective Green, g (s)					35.0			87.0			87.0	87.0
Actuated g/C Ratio					0.27			0.67			0.67	0.67
Clearance Time (s)					4.0			4.0			4.0	4.0
Lane Grp Cap (vph)					432			955			753	562
v/s Ratio Prot								0.36			c0.60	
v/s Ratio Perm					0.24							0.07
v/c Ratio					0.90			0.53			0.90	0.11
Uniform Delay, d1					45.7			11.1			17.8	7.7
Progression Factor					1.00			1.21			0.46	0.60
Incremental Delay, d2					23.8			1.4			8.5	0.2
Delay (s)					69.5			14.8			16.6	4.8
Level of Service					E			B			B	A
Approach Delay (s)		0.0			69.5			14.8			15.7	
Approach LOS		A			E			B			B	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.5%	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												
Volume (vph)	129	280	19	16	10	10	0	457	8	0	564	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.99	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.99			0.96			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1590			1523			1304			1493	
Flt Permitted		0.89			0.80			1.00			1.00	
Satd. Flow (perm)		1429			1247			1304			1493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	142	308	21	18	11	11	0	502	9	0	620	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	471	0	0	40	0	0	511	0	0	660	0
Confl. Peds. (#/hr)	24		35	35		24			24			33
Confl. Bikes (#/hr)			1			1						1
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	0%	5%	0%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								22			0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		51.0			51.0			71.0			71.0	
Effective Green, g (s)		51.0			51.0			71.0			71.0	
Actuated g/C Ratio		0.39			0.39			0.55			0.55	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		560			489			712			815	
v/s Ratio Prot								0.39			c0.44	
v/s Ratio Perm		c0.33			0.03							
v/c Ratio		0.84			0.08			0.72			0.81	
Uniform Delay, d1		35.8			24.8			22.0			24.0	
Progression Factor		1.00			1.00			0.60			0.58	
Incremental Delay, d2		14.2			0.3			2.1			3.8	
Delay (s)		50.0			25.1			15.2			17.7	
Level of Service		D			C			B			B	
Approach Delay (s)		50.0			25.1			15.2			17.7	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

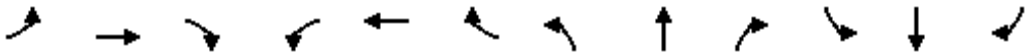
Movement	EBL2	EBT	EBR	EBR2	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT
Lane Configurations												
Volume (vph)	4	435	105	40	2	285	135	43	595	73	1	513
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	12	11	10	12	11	11	11	11
Total Lost time (s)		5.0				5.0			6.0	6.0		6.0
Lane Util. Factor		0.95				0.95			1.00	1.00		1.00
Frpb, ped/bikes		0.96				0.95			1.00	0.84		1.00
Flpb, ped/bikes		1.00				1.00			1.00	1.00		1.00
Frt		0.96				0.94			1.00	0.85		1.00
Flt Protected		1.00				1.00			1.00	1.00		1.00
Satd. Flow (prot)		2866				2820			1293	916		1535
Flt Permitted		0.95				0.95			1.00	1.00		1.00
Satd. Flow (perm)		2728				2680			1293	916		1535
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)	4	478	115	44	2	313	148	47	654	80	1	564
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	641	0	0	0	510	0	0	654	81	0	564
Confl. Peds. (#/hr)			51		51		42			47		
Confl. Bikes (#/hr)			8									
Heavy Vehicles (%)	0%	7%	7%	5%	0%	2%	13%	5%	5%	3%	100%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	3	0	0
Parking (#/hr)									24	24		0
Turn Type	Perm	NA			Perm	NA			NA	Perm		NA
Protected Phases		10				14			2			6
Permitted Phases	10				14					2		
Actuated Green, G (s)		27.0				27.0			61.0	61.0		61.0
Effective Green, g (s)		27.0				27.0			61.0	61.0		61.0
Actuated g/C Ratio		0.21				0.21			0.47	0.47		0.47
Clearance Time (s)		5.0				5.0			6.0	6.0		6.0
Lane Grp Cap (vph)		566				556			606	429		720
v/s Ratio Prot									c0.51			0.37
v/s Ratio Perm		c0.23				0.19				0.09		
v/c Ratio		1.13				0.92			1.08	0.19		0.78
Uniform Delay, d1		51.5				50.4			34.5	20.1		29.0
Progression Factor		1.00				1.00			0.64	0.59		0.46
Incremental Delay, d2		79.9				22.4			54.1	0.7		5.1
Delay (s)		131.4				72.8			76.2	12.6		18.4
Level of Service		F				E			E	B		B
Approach Delay (s)		131.4				72.8			69.2			18.2
Approach LOS		F				E			E			B

Intersection Summary			
HCM 2000 Control Delay	80.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR	SEL	SET	SER	SER2	NWL2	NWL	NWT	NWR	NWR2
Lane Configurations										
Volume (vph)	24	27	342	111	1	7	16	240	61	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	9	11	11	11	12	9	11	11	11
Total Lost time (s)	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00	1.00			1.00	1.00	1.00	
Frpb, ped/bikes	0.94	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	
Frt	0.85	1.00	1.00	0.85			1.00	1.00	0.85	
Flt Protected	1.00	0.95	1.00	1.00			0.95	1.00	1.00	
Satd. Flow (prot)	1391	1386	1689	1423			1539	1723	1438	
Flt Permitted	1.00	0.31	1.00	1.00			0.16	1.00	1.00	
Satd. Flow (perm)	1391	451	1689	1423			259	1723	1438	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	26	30	376	122	1	8	18	264	67	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	26	30	376	123	0	0	26	264	70	0
Confl. Peds. (#/hr)	26									
Confl. Bikes (#/hr)										
Heavy Vehicles (%)	0%	11%	3%	4%	0%	0%	0%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Turn Type	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	
Protected Phases			4					8		
Permitted Phases	6	4		4		8	8		8	
Actuated Green, G (s)	61.0	25.0	25.0	25.0			25.0	25.0	25.0	
Effective Green, g (s)	61.0	25.0	25.0	25.0			25.0	25.0	25.0	
Actuated g/C Ratio	0.47	0.19	0.19	0.19			0.19	0.19	0.19	
Clearance Time (s)	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lane Grp Cap (vph)	652	86	324	273			49	331	276	
v/s Ratio Prot			c0.22					0.15		
v/s Ratio Perm	0.02	0.07		0.09			0.10		0.05	
v/c Ratio	0.04	0.35	1.16	0.45			0.53	0.80	0.25	
Uniform Delay, d1	18.7	45.5	52.5	46.4			47.2	50.1	44.6	
Progression Factor	0.72	1.00	1.00	1.00			1.00	1.00	1.00	
Incremental Delay, d2	0.1	10.8	101.0	5.3			35.5	17.9	2.2	
Delay (s)	13.5	56.3	153.5	51.7			82.8	68.0	46.8	
Level of Service	B	E	F	D			F	E	D	
Approach Delay (s)			124.3					64.9		
Approach LOS			F					E		

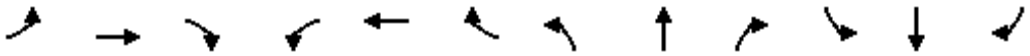
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	146	179	5	0	633	0	0	591	61
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					1.00			1.00			0.97	
Flpb, ped/bikes					0.98			1.00			1.00	
Frt					1.00			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1919			1333			1220	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1919			1333			1220	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	0	0	160	197	5	0	696	0	0	649	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	362	0	0	696	0	0	716	0
Confl. Peds. (#/hr)			19	19		54			130			48
Confl. Bikes (#/hr)						2			1			1
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%	0%	7%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								16			30	30
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					31.0			91.0			91.0	
Effective Green, g (s)					31.0			91.0			91.0	
Actuated g/C Ratio					0.24			0.70			0.70	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					457			933			854	
v/s Ratio Prot								0.52			c0.59	
v/s Ratio Perm					0.19							
v/c Ratio					0.79			0.75			0.84	
Uniform Delay, d1					46.5			12.2			14.2	
Progression Factor					1.00			0.31			0.85	
Incremental Delay, d2					13.2			4.2			6.5	
Delay (s)					59.6			8.0			18.6	
Level of Service					E			A			B	
Approach Delay (s)		0.0			59.6			8.0			18.6	
Approach LOS		A			E			A			B	

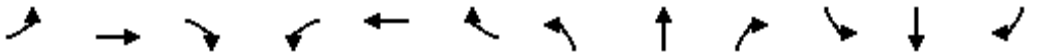
Intersection Summary			
HCM 2000 Control Delay	22.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	141	112	0	0	0	0	524	35	0	568	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						1.00			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.95						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1656						1259			1433	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1656						1259			1433	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	57	155	123	0	0	0	0	576	38	0	624	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	335	0	0	0	0	0	614	0	0	636	0
Confl. Peds. (#/hr)	8		1			8			1			2
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	2%	13%	0%	0%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								16	16		8	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		38.0						84.0			84.0	
Effective Green, g (s)		38.0						84.0			84.0	
Actuated g/C Ratio		0.29						0.65			0.65	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		484						813			925	
v/s Ratio Prot								c0.49			0.44	
v/s Ratio Perm		0.20										
v/c Ratio		0.69						0.76			0.69	
Uniform Delay, d1		40.8						15.9			14.6	
Progression Factor		1.00						1.04			1.06	
Incremental Delay, d2		7.9						0.6			2.2	
Delay (s)		48.7						17.1			17.7	
Level of Service		D						B			B	
Approach Delay (s)		48.7			0.0			17.1			17.7	
Approach LOS		D			A			B			B	

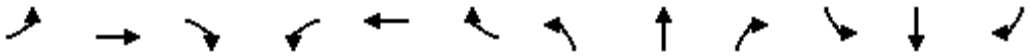
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	184	733	75	144	480	68	0	602	79	0	995	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	10	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00	0.89		1.00	0.66
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1530	2997		1580	3010			716	522		1413	934
Flt Permitted	0.14	1.00		0.16	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	230	2997		266	3010			716	522		1413	934
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	202	805	82	158	527	75	0	662	87	0	1093	63
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	202	887	0	158	602	0	0	662	87	0	1093	63
Confl. Peds. (#/hr)	44		31	31		44			20			76
Confl. Bikes (#/hr)			5			2			3			1
Heavy Vehicles (%)	4%	4%	3%	1%	2%	3%	0%	7%	10%	4%	1%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								92	92		16	
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	39.0	31.0		30.0	25.0			83.0	83.0		83.0	83.0
Effective Green, g (s)	39.0	31.0		30.0	25.0			83.0	83.0		83.0	83.0
Actuated g/C Ratio	0.30	0.24		0.23	0.19			0.64	0.64		0.64	0.64
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	179	714		111	578			457	333		902	596
v/s Ratio Prot	c0.10	0.30		c0.05	0.20			c0.93			0.77	
v/s Ratio Perm	0.24			c0.27					0.17			0.07
v/c Ratio	1.13	1.24		1.42	1.04			1.45	0.26		1.21	0.11
Uniform Delay, d1	39.9	49.5		49.0	52.5			23.5	10.2		23.5	9.1
Progression Factor	1.00	1.00		1.00	1.00			1.22	1.58		0.80	0.88
Incremental Delay, d2	106.0	120.7		234.8	48.7			203.0	0.2		104.9	0.3
Delay (s)	145.9	170.2		283.8	101.2			231.6	16.3		123.6	8.4
Level of Service	F	F		F	F			F	B		F	A
Approach Delay (s)		165.7			139.1			206.6			117.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	153.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

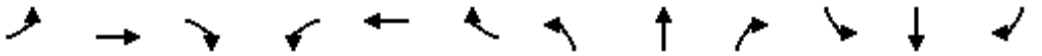
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	205	98	102	128	15	0	634	53	0	677	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.99			1.00	
Flt Protected		1.00			0.98			1.00			1.00	
Satd. Flow (prot)		1530			1555			1151			1527	
Flt Permitted		0.95			0.52			1.00			1.00	
Satd. Flow (perm)		1458			829			1151			1527	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	35	225	108	112	141	16	0	697	58	0	744	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	368	0	0	269	0	0	755	0	0	771	0
Confl. Peds. (#/hr)	12		2	2		12			4			3
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%	6%	6%	4%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			82.0			82.0	
Effective Green, g (s)		40.0			40.0			82.0			82.0	
Actuated g/C Ratio		0.31			0.31			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		448			255			726			963	
v/s Ratio Prot								c0.66			0.50	
v/s Ratio Perm		0.25			c0.32							
v/c Ratio		0.82			1.05			1.04			0.80	
Uniform Delay, d1		41.7			45.0			24.0			17.9	
Progression Factor		1.00			1.00			0.56			0.66	
Incremental Delay, d2		15.5			71.5			39.4			0.7	
Delay (s)		57.2			116.5			52.8			12.4	
Level of Service		E			F			D			B	
Approach Delay (s)		57.2			116.5			52.8			12.4	
Approach LOS		E			F			D			B	

Intersection Summary			
HCM 2000 Control Delay	47.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

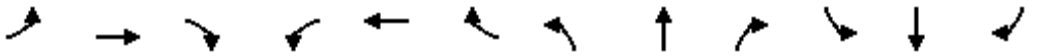


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	630	7	164	476	15	0	506	54	0	596	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	9	10	9	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0		2.0	5.0	5.0		5.0	5.0		5.0	2.0
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94		1.00	0.92		1.00	0.88
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		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1475	3034		1505	1631	1288		1431	1115		1535	1157
Flt Permitted	0.19	1.00		0.21	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	295	3034		329	1631	1288		1431	1115		1535	1157
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	136	692	8	180	523	16	0	556	59	0	655	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	136	700	0	180	523	16	0	556	59	0	655	125
Confl. Peds. (#/hr)	20		24	24		20			39			38
Confl. Bikes (#/hr)			5			1			2			3
Heavy Vehicles (%)	8%	5%	0%	2%	3%	0%	0%	7%	6%	9%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								4	4		0	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	pm+ov
Protected Phases	7	4		3	8			2 10			6	7
Permitted Phases	4			8		8			2 10			6
Actuated Green, G (s)	47.1	41.1		54.0	46.0	46.0		66.0	66.0		63.0	69.0
Effective Green, g (s)	47.1	41.1		54.0	46.0	46.0		64.0	64.0		63.0	69.0
Actuated g/C Ratio	0.36	0.32		0.42	0.35	0.35		0.49	0.49		0.48	0.53
Clearance Time (s)	2.0	5.0		2.0	5.0	5.0					5.0	2.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0					3.0	3.0
Lane Grp Cap (vph)	161	959		235	577	455		704	548		743	614
v/s Ratio Prot	c0.04	0.23		c0.06	c0.32			c0.39			c0.43	0.01
v/s Ratio Perm	0.27			0.25		0.01			0.05			0.10
v/c Ratio	0.84	0.73		0.77	0.91	0.04		0.79	0.11		0.88	0.20
Uniform Delay, d1	37.8	39.5		27.4	40.0	27.5		27.4	17.7		30.1	16.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.22	0.27		0.98	1.03
Incremental Delay, d2	31.3	4.9		13.8	20.4	0.1		4.7	0.2		8.4	0.1
Delay (s)	69.0	44.4		41.2	60.3	27.6		10.9	5.1		37.9	16.6
Level of Service	E	D		D	E	C		B	A		D	B
Approach Delay (s)		48.4			54.8			10.3			34.5	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

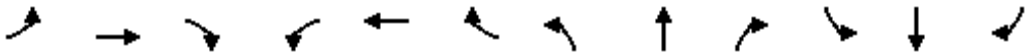
Movement	EBT	EBR	WBL2	WBT	WBR	NBT	NBR	SBT	SBR	SBR2	NEL
Lane Configurations											
Volume (vph)	615	176	18	209	46	542	32	731	11	1	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	16
Total Lost time (s)	5.0			5.0		5.0		5.0			
Lane Util. Factor	0.95			0.95		1.00		1.00			
Frpb, ped/bikes	0.99			1.00		1.00		1.00			
Flpb, ped/bikes	1.00			1.00		1.00		1.00			
Frt	0.97			0.97		0.99		1.00			
Flt Protected	1.00			1.00		1.00		1.00			
Satd. Flow (prot)	3166			3046		1425		1481			
Flt Permitted	1.00			0.87		1.00		1.00			
Satd. Flow (perm)	3166			2655		1425		1481			
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.92
Adj. Flow (vph)	676	193	20	230	51	596	35	803	12	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	869	0	0	301	0	631	0	816	0	0	0
Confl. Peds. (#/hr)		14			2		4				
Heavy Vehicles (%)	0%	0%	0%	5%	7%	9%	6%	2%	0%	0%	2%
Parking (#/hr)						0		6			
Turn Type	NA		Perm	NA		NA		NA			
Protected Phases	4			8		2		6			10
Permitted Phases			8								
Actuated Green, G (s)	55.0			55.0		65.0		65.0			
Effective Green, g (s)	55.0			55.0		65.0		65.0			
Actuated g/C Ratio	0.42			0.42		0.50		0.50			
Clearance Time (s)	5.0			5.0		5.0		5.0			
Vehicle Extension (s)	3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)	1339			1123		712		740			
v/s Ratio Prot	c0.27					0.44		c0.55			
v/s Ratio Perm				0.11							
v/c Ratio	0.65			0.27		0.89		1.10			
Uniform Delay, d1	29.8			24.4		29.2		32.5			
Progression Factor	1.00			1.00		1.00		0.65			
Incremental Delay, d2	2.4			0.6		15.2		57.0			
Delay (s)	32.3			25.0		44.4		78.2			
Level of Service	C			C		D		E			
Approach Delay (s)	32.3			25.0		44.4		78.2			0.0
Approach LOS	C			C		D		E			A

Intersection Summary			
HCM 2000 Control Delay	48.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	83.9%	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												
Volume (vph)	48	226	3	152	263	14	0	551	86	0	671	104
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00			1.00	0.97		1.00	0.98
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00			1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1664	1387		3114			1374	1256		1506	1443
Flt Permitted		0.84	1.00		0.63			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1402	1387		1999			1374	1256		1506	1443
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	53	248	3	167	289	15	0	605	95	0	737	114
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	301	3	0	471	0	0	605	95	0	737	114
Confl. Peds. (#/hr)	4		4	4		4			2			7
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	14%	2%	10%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								0	0		0	
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		31.0	31.0		31.0			61.0	61.0		61.0	61.0
Effective Green, g (s)		31.0	31.0		31.0			61.0	61.0		61.0	61.0
Actuated g/C Ratio		0.31	0.31		0.31			0.61	0.61		0.61	0.61
Clearance Time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		434	429		619			838	766		918	880
v/s Ratio Prot								0.44			c0.49	
v/s Ratio Perm		0.21	0.00		c0.24				0.08			0.08
v/c Ratio		0.69	0.01		0.76			0.72	0.12		0.80	0.13
Uniform Delay, d1		30.3	23.9		31.2			13.6	8.2		14.9	8.3
Progression Factor		1.00	1.00		1.00			0.37	0.51		1.00	1.00
Incremental Delay, d2		8.8	0.0		8.6			3.3	0.2		7.4	0.3
Delay (s)		39.1	23.9		39.7			8.4	4.4		22.3	8.6
Level of Service		D	C		D			A	A		C	A
Approach Delay (s)		39.0			39.7			7.8			20.4	
Approach LOS		D			D			A			C	

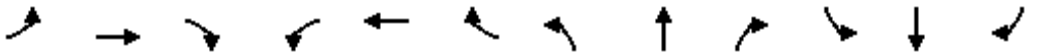
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	581	59	4	118	80	0	567	1	0	824	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	16	16	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	3.0		4.0			3.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Frpb, ped/bikes		1.00	0.98		1.00	0.97		1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	
Frt		1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (prot)		1647	1323		1943	1438		1506			1550	
Flt Permitted		1.00	1.00		0.86	1.00		1.00			1.00	
Satd. Flow (perm)		1647	1323		1679	1438		1506			1550	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	638	65	4	130	88	0	623	1	0	905	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	638	65	0	134	88	0	624	0	0	908	0
Confl. Peds. (#/hr)	9		10	10		9						
Heavy Vehicles (%)	0%	2%	2%	0%	5%	3%	0%	4%	0%	5%	1%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	custom		NA			NA	
Protected Phases		4			8	1		2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)		37.0	37.0		37.0	41.0		48.0			56.0	
Effective Green, g (s)		37.0	37.0		37.0	41.0		48.0			56.0	
Actuated g/C Ratio		0.37	0.37		0.37	0.41		0.48			0.56	
Clearance Time (s)		4.0	4.0		4.0	3.0		4.0			3.0	
Lane Grp Cap (vph)		609	489		621	589		722			868	
v/s Ratio Prot		c0.39				0.01		0.41			c0.59	
v/s Ratio Perm			0.05		0.08	0.06						
v/c Ratio		1.05	0.13		0.22	0.15		0.86			1.05	
Uniform Delay, d1		31.5	20.9		21.6	18.5		23.1			22.0	
Progression Factor		1.00	1.00		1.00	1.00		0.56			1.18	
Incremental Delay, d2		49.5	0.6		0.8	0.5		7.7			36.4	
Delay (s)		81.0	21.4		22.4	19.1		20.6			62.5	
Level of Service		F	C		C	B		C			E	
Approach Delay (s)		75.5			21.1			20.6			62.5	
Approach LOS		E			C			C			E	

Intersection Summary			
HCM 2000 Control Delay	51.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

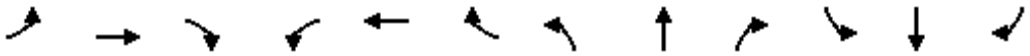
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	462	408	57	7	197	0	85	261	10	0	492	239
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	10	10	16	16	16	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Lane Util. Factor	1.00	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	0.98
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.98			1.00		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1542	1555			1933		1545	1332			1689	1265
Flt Permitted	0.24	1.00			0.97		0.19	1.00			1.00	1.00
Satd. Flow (perm)	389	1555			1880		317	1332			1689	1265
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)	508	448	63	8	216	0	93	287	11	0	541	263
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	508	511	0	0	224	0	93	298	0	0	541	263
Confl. Peds. (#/hr)	11		2	2		11	7		3			7
Heavy Vehicles (%)	7%	6%	4%	14%	5%	0%	7%	16%	0%	11%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	0	0
Parking (#/hr)								0				0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA			NA	pm+ov
Protected Phases	7	4			8		5	2			6	7
Permitted Phases	4			8			2					6
Actuated Green, G (s)	44.7	44.7			13.7		46.3	46.3			39.5	67.5
Effective Green, g (s)	44.7	44.7			13.7		46.3	46.3			39.5	67.5
Actuated g/C Ratio	0.45	0.45			0.14		0.46	0.46			0.40	0.68
Clearance Time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	496	695			257		205	616			667	853
v/s Ratio Prot	c0.29	0.33					0.02	c0.22			c0.32	0.09
v/s Ratio Perm	c0.17				0.12		0.19					0.12
v/c Ratio	1.02	0.74			0.87		0.45	0.48			0.81	0.31
Uniform Delay, d1	26.7	22.8			42.3		18.6	18.6			26.9	6.7
Progression Factor	1.00	1.00			1.00		1.16	1.04			1.39	1.06
Incremental Delay, d2	46.7	4.0			26.0		0.1	0.2			3.0	0.1
Delay (s)	73.4	26.8			68.3		21.7	19.6			40.3	7.1
Level of Service	E	C			E		C	B			D	A
Approach Delay (s)		50.0			68.3			20.1			29.5	
Approach LOS		D			E			C			C	

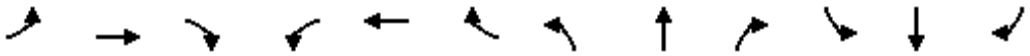
Intersection Summary			
HCM 2000 Control Delay	40.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	85.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	279	20	100	122	4	0	497	91	0	440	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.90		0.99			0.97			0.98	
Flpb, ped/bikes		1.00	1.00		0.98			1.00			1.00	
Frt		1.00	0.85		1.00			0.98			0.98	
Flt Protected		1.00	1.00		0.98			1.00			1.00	
Satd. Flow (prot)		1667	1308		1581			898			1468	
Flt Permitted		1.00	1.00		0.52			1.00			1.00	
Satd. Flow (perm)		1667	1308		838			898			1468	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	0	307	22	110	134	4	0	546	100	0	484	101
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	307	22	0	248	0	0	646	0	0	585	0
Confl. Peds. (#/hr)	159		27	27		159			52			28
Heavy Vehicles (%)	0%	8%	5%	6%	11%	0%	0%	8%	3%	50%	3%	0%
Parking (#/hr)								64			0	
Turn Type		NA	Perm	pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases			4	8								
Actuated Green, G (s)		31.0	31.0		31.0			60.0			60.0	
Effective Green, g (s)		31.0	31.0		31.0			60.0			60.0	
Actuated g/C Ratio		0.31	0.31		0.31			0.60			0.60	
Clearance Time (s)		5.0	5.0		5.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		516	405		259			538			880	
v/s Ratio Prot		0.18						c0.72			0.40	
v/s Ratio Perm			0.02		c0.30							
v/c Ratio		0.59	0.05		0.96			1.20			0.66	
Uniform Delay, d1		29.2	24.2		33.9			20.0			13.3	
Progression Factor		1.00	1.00		1.00			0.58			0.51	
Incremental Delay, d2		5.0	0.3		43.8			105.0			2.7	
Delay (s)		34.2	24.5		77.6			116.5			9.5	
Level of Service		C	C		E			F			A	
Approach Delay (s)		33.5			77.6			116.5			9.5	
Approach LOS		C			E			F			A	

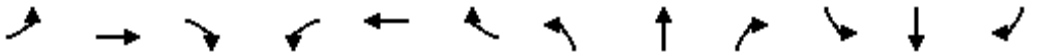
Intersection Summary			
HCM 2000 Control Delay	61.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	4	130	24	10	18	0	483	6	0	401	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.95			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1397			1103			1228			1513	
Flt Permitted		0.93			0.83			1.00			1.00	
Satd. Flow (perm)		1317			940			1228			1513	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	37	4	143	26	11	20	0	531	7	0	441	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	184	0	0	57	0	0	538	0	0	450	0
Confl. Peds. (#/hr)	1		20	20		1			4			1
Heavy Vehicles (%)	0%	0%	1%	42%	0%	56%	8%	9%	0%	0%	3%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		19.8			19.8			72.2			72.2	
Effective Green, g (s)		19.8			19.8			72.2			72.2	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		260			186			886			1092	
v/s Ratio Prot								c0.44			0.30	
v/s Ratio Perm		c0.14			0.06							
v/c Ratio		0.71			0.31			0.61			0.41	
Uniform Delay, d1		37.4			34.2			6.9			5.5	
Progression Factor		1.00			1.00			0.16			1.14	
Incremental Delay, d2		10.6			2.0			1.5			0.8	
Delay (s)		48.0			36.2			2.6			7.1	
Level of Service		D			D			A			A	
Approach Delay (s)		48.0			36.2			2.6			7.1	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

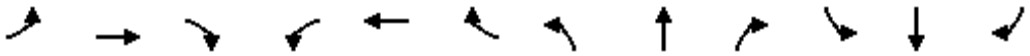
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	684	33	92	455	19	0	521	88	0	516	28
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.94
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1338	2730		1508	3002			1129	971		1166	910
Flt Permitted	0.32	1.00		0.17	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	452	2730		266	3002			1129	971		1166	910
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	92	752	36	101	500	21	0	573	97	0	567	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	92	788	0	101	521	0	0	573	97	0	567	31
Confl. Peds. (#/hr)			13	13					10			27
Heavy Vehicles (%)	15%	12%	6%	2%	2%	0%	2%	14%	8%	0%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		42	42
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	37.4	31.0		35.8	30.2			52.4	52.4		52.4	52.4
Effective Green, g (s)	37.4	31.0		35.8	30.2			52.4	52.4		52.4	52.4
Actuated g/C Ratio	0.37	0.31		0.36	0.30			0.52	0.52		0.52	0.52
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	225	846		164	906			591	508		610	476
v/s Ratio Prot	c0.03	c0.29		c0.03	0.17			c0.51			0.49	
v/s Ratio Perm	0.13			0.18					0.10			0.03
v/c Ratio	0.41	0.93		0.62	0.58			0.97	0.19		0.93	0.07
Uniform Delay, d1	21.5	33.5		23.6	29.5			23.0	12.6		22.1	11.7
Progression Factor	1.00	1.00		1.00	1.00			1.29	1.33		0.60	0.59
Incremental Delay, d2	1.2	18.2		6.7	2.7			25.8	0.6		21.9	0.2
Delay (s)	22.8	51.7		30.3	32.1			55.4	17.4		35.2	7.2
Level of Service	C	D		C	C			E	B		D	A
Approach Delay (s)		48.6			31.8			49.9			33.7	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	42.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

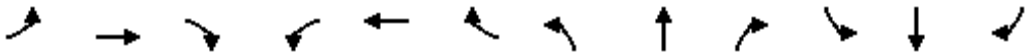
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	72	11	50	24	44	0	543	30	0	579	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	11	11	11	11	11	11	11	11	11
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.97			1.00			1.00	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.99			0.95			0.99			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1928			1549			1103			1386	
Flt Permitted		0.87			0.85			1.00			1.00	
Satd. Flow (perm)		1718			1340			1103			1386	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	54	79	12	55	26	48	0	597	33	0	636	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	145	0	0	129	0	0	630	0	0	648	0
Confl. Peds. (#/hr)	24		9	9		24			9			19
Heavy Vehicles (%)	0%	0%	9%	0%	0%	2%	4%	5%	0%	1%	5%	9%
Parking (#/hr)								46			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			70.0			70.0	
Effective Green, g (s)		24.0			24.0			70.0			70.0	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		412			321			772			970	
v/s Ratio Prot								c0.57			0.47	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.35			0.40			0.82			0.67	
Uniform Delay, d1		31.5			32.0			10.5			8.5	
Progression Factor		1.00			1.00			0.41			0.59	
Incremental Delay, d2		2.4			3.7			8.5			2.2	
Delay (s)		33.9			35.7			12.8			7.2	
Level of Service		C			D			B			A	
Approach Delay (s)		33.9			35.7			12.8			7.2	
Approach LOS		C			D			B			A	

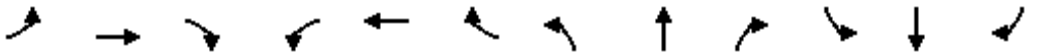
Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	372	83	0	176	51	0	423	13	0	594	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	11	11	11	11	11	8	11	11	11
Total Lost time (s)	5.0	5.0			5.0	3.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.93		1.00			1.00	
Flpb, ped/bikes	0.95	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.97			1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1522	1601			1642	1252		1593			1520	
Flt Permitted	0.64	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (perm)	1019	1601			1642	1252		1593			1520	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.90	0.91	0.91	0.90	0.91	0.91
Adj. Flow (vph)	14	409	91	0	193	56	0	465	14	0	653	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	14	500	0	0	193	56	0	479	0	0	653	0
Confl. Peds. (#/hr)	40		24			40			4			11
Heavy Vehicles (%)	0%	5%	5%	0%	6%	10%	8%	9%	0%	5%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA			NA	custom		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					3 8						
Actuated Green, G (s)	36.0	36.0			40.0	40.0		50.0			50.0	
Effective Green, g (s)	36.0	36.0			40.0	40.0		50.0			50.0	
Actuated g/C Ratio	0.36	0.36			0.40	0.40		0.50			0.50	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)	366	576			656	500		796			760	
v/s Ratio Prot		c0.31			c0.12			0.30			c0.43	
v/s Ratio Perm	0.01					0.04						
v/c Ratio	0.04	0.87			0.29	0.11		0.60			0.86	
Uniform Delay, d1	20.8	29.8			20.4	18.8		17.9			21.9	
Progression Factor	1.00	1.00			1.00	1.00		0.58			1.14	
Incremental Delay, d2	0.2	16.2			1.1	0.5		2.2			10.2	
Delay (s)	21.0	45.9			21.5	19.3		12.6			35.2	
Level of Service	C	D			C	B		B			D	
Approach Delay (s)		45.3			21.0			12.6			35.2	
Approach LOS		D			C			B			D	

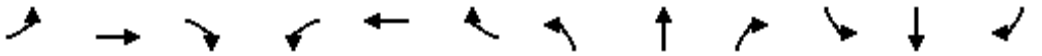
Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	706	54	141	442	42	0	525	141	0	454	113
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.83	1.00	1.00	0.79		1.00	0.82		1.00	0.87
Flpb, ped/bikes	0.90	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1459	3179	1200	1631	3160	1124		1395	1149		1550	1147
Flt Permitted	0.48	1.00	1.00	0.15	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	729	3179	1200	253	3160	1124		1395	1149		1550	1147
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.93	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	144	776	59	155	486	46	0	577	155	0	499	124
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	144	776	59	155	486	46	0	577	155	0	499	124
Confl. Peds. (#/hr)	102		77	77		102			145			102
Confl. Bikes (#/hr)			7			1			1			1
Heavy Vehicles (%)	2%	4%	2%	1%	1%	0%	7%	6%	6%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								10			0	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	29.0	29.0	29.0	39.0	39.0	39.0		51.0	51.0		51.0	51.0
Effective Green, g (s)	29.0	29.0	29.0	39.0	39.0	39.0		51.0	51.0		51.0	51.0
Actuated g/C Ratio	0.29	0.29	0.29	0.39	0.39	0.39		0.51	0.51		0.51	0.51
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	211	921	348	195	1232	438		711	585		790	584
v/s Ratio Prot		0.24		c0.06	0.15			c0.41			0.32	
v/s Ratio Perm	0.20		0.05	c0.25		0.04			0.13			0.11
v/c Ratio	0.68	0.84	0.17	0.79	0.39	0.11		0.81	0.26		0.63	0.21
Uniform Delay, d1	31.4	33.4	26.5	22.9	22.0	19.4		20.5	13.9		17.7	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.04	1.05		0.23	0.27
Incremental Delay, d2	16.4	9.3	1.1	27.5	0.9	0.5		8.9	1.0		1.9	0.4
Delay (s)	47.9	42.6	27.6	50.5	22.9	19.9		30.3	15.5		5.9	4.1
Level of Service	D	D	C	D	C	B		C	B		A	A
Approach Delay (s)		42.5			28.9			27.2			5.6	
Approach LOS		D			C			C			A	

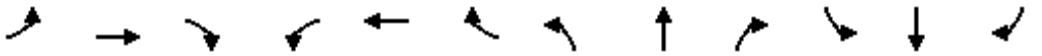
Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



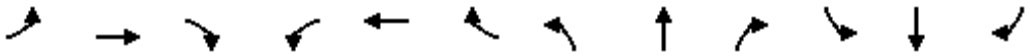
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	476	52	50	247	29	0	402	118	0	494	83
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	9	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	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	0.90		1.00	0.91		1.00	0.96
Flpb, ped/bikes	0.95	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1523	1740	1400	1480	1647	1083		1243	1320		1255	1404
Flt Permitted	0.44	1.00	1.00	0.14	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	711	1740	1400	222	1647	1083		1243	1320		1255	1404
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	187	523	57	55	271	32	0	442	130	0	543	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	187	523	57	55	271	32	0	442	130	0	543	91
Confl. Peds. (#/hr)	34		6	6		34			20			6
Heavy Vehicles (%)	0%	0%	2%	4%	2%	14%	0%	12%	2%	2%	4%	1%
Parking (#/hr)								20			30	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.3	34.3	34.3	34.3	34.3	34.3		59.7	59.7		59.7	59.7
Effective Green, g (s)	34.3	34.3	34.3	34.3	34.3	34.3		59.7	59.7		59.7	59.7
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.60	0.60		0.60	0.60
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	243	596	480	76	564	371		742	788		749	838
v/s Ratio Prot		c0.30			0.16			0.36			c0.43	
v/s Ratio Perm	0.26		0.04	0.25		0.03			0.10			0.06
v/c Ratio	0.77	0.88	0.12	0.72	0.48	0.09		0.60	0.16		0.72	0.11
Uniform Delay, d1	29.3	30.9	22.5	28.7	25.8	22.2		12.6	9.0		14.3	8.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.82	0.77
Incremental Delay, d2	13.6	13.7	0.1	28.6	0.6	0.1		3.5	0.5		5.2	0.2
Delay (s)	43.0	44.6	22.6	57.3	26.5	22.3		16.1	9.5		16.9	6.9
Level of Service	D	D	C	E	C	C		B	A		B	A
Approach Delay (s)		42.6			30.9			14.6			15.4	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



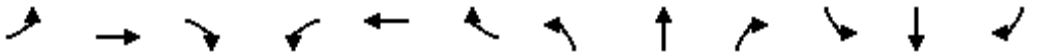
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	584	67	43	453	19	0	403	71	0	551	102
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.96		1.00	0.94
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1588	3127		1598	3221			1389	1380		1550	1395
Flt Permitted	0.39	1.00		0.27	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	657	3127		448	3221			1389	1380		1550	1395
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	151	642	74	47	498	21	0	443	78	0	605	112
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	151	716	0	47	519	0	0	443	78	0	605	112
Confl. Peds. (#/hr)	2		103	103		2			37			61
Heavy Vehicles (%)	4%	3%	1%	0%	2%	0%	0%	4%	3%	1%	1%	0%
Parking (#/hr)								14			0	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	23.5	23.5		23.5	23.5			33.5	33.5		33.5	33.5
Effective Green, g (s)	23.5	23.5		23.5	23.5			33.5	33.5		33.5	33.5
Actuated g/C Ratio	0.36	0.36		0.36	0.36			0.52	0.52		0.52	0.52
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	237	1130		161	1164			715	711		798	718
v/s Ratio Prot		0.23			0.16			0.32			c0.39	
v/s Ratio Perm	c0.23			0.10					0.06			0.08
v/c Ratio	0.64	0.63		0.29	0.45			0.62	0.11		0.76	0.16
Uniform Delay, d1	17.2	17.2		14.8	15.8			11.2	8.1		12.5	8.3
Progression Factor	1.00	1.00		1.00	1.00			0.80	0.62		1.00	1.00
Incremental Delay, d2	5.5	1.2		1.0	0.3			3.1	0.2		6.7	0.5
Delay (s)	22.7	18.4		15.8	16.1			12.0	5.3		19.2	8.8
Level of Service	C	B		B	B			B	A		B	A
Approach Delay (s)		19.1			16.0			11.0			17.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.2%	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												
Volume (vph)	43	56	26	12	17	19	0	517	9	0	579	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.95			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1539			1471			1379			1427	
Flt Permitted		0.89			0.93			1.00			1.00	
Satd. Flow (perm)		1394			1382			1379			1427	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	47	62	29	13	19	21	0	568	10	0	636	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	138	0	0	53	0	0	578	0	0	644	0
Confl. Peds. (#/hr)	15		12	12		15			10			3
Heavy Vehicles (%)	2%	4%	0%	0%	0%	11%	0%	7%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		14	14
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			39.0			39.0	
Effective Green, g (s)		18.0			18.0			39.0			39.0	
Actuated g/C Ratio		0.28			0.28			0.60			0.60	
Clearance Time (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		386			382			827			856	
v/s Ratio Prot								0.42			c0.45	
v/s Ratio Perm		c0.10			0.04							
v/c Ratio		0.36			0.14			0.70			0.75	
Uniform Delay, d1		18.9			17.7			9.0			9.5	
Progression Factor		1.00			1.00			0.74			0.79	
Incremental Delay, d2		2.6			0.8			3.4			5.2	
Delay (s)		21.4			18.4			10.1			12.7	
Level of Service		C			B			B			B	
Approach Delay (s)		21.4			18.4			10.1			12.7	
Approach LOS		C			B			B			B	

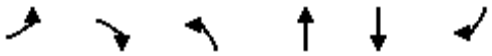
Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	837	179	64	423	35	0	488	69	0	475	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00			1.00	0.97		1.00	0.91
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.97		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1510	2876		1457	2915			1325	1337		1535	1179
Flt Permitted	0.40	1.00		0.18	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	643	2876		281	2915			1325	1337		1535	1179
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	108	920	197	70	465	38	0	536	76	0	522	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	108	1117	0	70	503	0	0	536	76	0	522	52
Confl. Peds. (#/hr)	41		61	61		41			16			58
Heavy Vehicles (%)	5%	6%	5%	8%	8%	6%	10%	9%	7%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								14			0	0
Turn Type	pm+pt	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.6	29.6		21.8	21.8			27.4	27.4		27.4	27.4
Effective Green, g (s)	30.6	29.6		21.8	21.8			27.4	27.4		27.4	27.4
Actuated g/C Ratio	0.47	0.46		0.34	0.34			0.42	0.42		0.42	0.42
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	366	1309		94	977			558	563		647	496
v/s Ratio Prot	0.02	c0.39			0.17			c0.40			0.34	
v/s Ratio Perm	0.12			0.25					0.06			0.04
v/c Ratio	0.30	0.85		0.74	0.51			0.96	0.13		0.81	0.10
Uniform Delay, d1	12.9	15.8		19.1	17.4			18.3	11.5		16.5	11.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		0.82	0.57
Incremental Delay, d2	0.5	7.2		41.1	1.9			29.5	0.5		7.7	0.3
Delay (s)	13.3	23.0		60.3	19.3			47.8	12.0		21.1	6.8
Level of Service	B	C		E	B			D	B		C	A
Approach Delay (s)		22.1			24.3			43.3			19.8	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

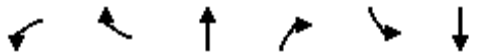
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	48	29	0	466	498	77
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.95			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.95			1.00	0.98	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1231			1450	1468	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1231			1450	1468	
Peak-hour factor, PHF	0.91	0.91	0.97	0.91	0.91	0.91
Adj. Flow (vph)	53	32	0	512	547	85
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	85	0	0	512	632	0
Confl. Peds. (#/hr)	23	12				
Heavy Vehicles (%)	29%	14%	21%	8%	5%	3%
Parking (#/hr)				0	0	
Turn Type	NA			NA	NA	
Protected Phases	4			2 10	6	
Permitted Phases						
Actuated Green, G (s)	16.0			78.0	70.0	
Effective Green, g (s)	16.0			78.0	70.0	
Actuated g/C Ratio	0.16			0.78	0.70	
Clearance Time (s)	3.0				3.0	
Lane Grp Cap (vph)	196			1131	1027	
v/s Ratio Prot	c0.07			c0.35	c0.43	
v/s Ratio Perm						
v/c Ratio	0.43			0.45	0.62	
Uniform Delay, d1	37.9			3.7	7.9	
Progression Factor	1.00			0.09	1.00	
Incremental Delay, d2	6.8			1.1	2.8	
Delay (s)	44.8			1.4	10.7	
Level of Service	D			A	B	
Approach Delay (s)	44.8			1.4	10.7	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

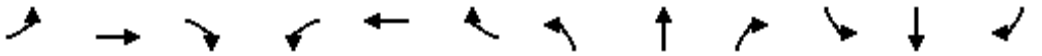
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	15	466	67	0	510
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	10	11	11	11	11
Total Lost time (s)	3.0		3.0			3.0
Lane Util. Factor	1.00		1.00			1.00
Frpb, ped/bikes	0.85		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	0.92		0.98			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1043		1429			1425
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1043		1429			1425
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.99	0.91
Adj. Flow (vph)	11	16	512	74	0	560
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	27	0	586	0	0	560
Confl. Peds. (#/hr)	12	23				
Heavy Vehicles (%)	30%	20%	8%	6%	0%	5%
Parking (#/hr)			0			8
Turn Type	NA		NA			NA
Protected Phases	8		2			6 14
Permitted Phases						
Actuated Green, G (s)	16.0		70.0			78.0
Effective Green, g (s)	16.0		70.0			78.0
Actuated g/C Ratio	0.16		0.70			0.78
Clearance Time (s)	3.0		3.0			
Lane Grp Cap (vph)	166		1000			1111
v/s Ratio Prot	c0.03		c0.41			c0.39
v/s Ratio Perm						
v/c Ratio	0.16		0.59			0.50
Uniform Delay, d1	36.2		7.6			4.0
Progression Factor	1.00		0.68			0.16
Incremental Delay, d2	2.1		1.5			1.3
Delay (s)	38.3		6.7			1.9
Level of Service	D		A			A
Approach Delay (s)	38.3		6.7			1.9
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

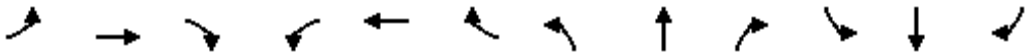
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	280	37	6	158	42	0	490	33	0	513	15
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.99			0.99			0.99			1.00	0.69
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.97			0.99			1.00	0.85
Flt Protected		0.99			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1625			1602			1131			1689	915
Flt Permitted		0.95			0.99			1.00			1.00	1.00
Satd. Flow (perm)		1553			1584			1131			1689	915
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.93	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	41	308	41	7	174	46	0	538	36	0	564	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	390	0	0	227	0	0	574	0	0	564	16
Confl. Peds. (#/hr)	10		36	36		10			34			77
Confl. Bikes (#/hr)			3						2			6
Heavy Vehicles (%)	14%	7%	3%	67%	6%	7%	0%	9%	6%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								36	36			0
Turn Type	Perm	NA		Perm	NA			NA			NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8								6
Actuated Green, G (s)		30.0			30.0			62.0			62.0	62.0
Effective Green, g (s)		30.0			30.0			62.0			62.0	62.0
Actuated g/C Ratio		0.30			0.30			0.62			0.62	0.62
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		465			475			701			1047	567
v/s Ratio Prot								c0.51			0.33	
v/s Ratio Perm		c0.25			0.14							0.02
v/c Ratio		0.84			0.48			0.82			0.54	0.03
Uniform Delay, d1		32.7			28.6			14.7			10.8	7.3
Progression Factor		1.00			1.00			0.46			0.47	0.62
Incremental Delay, d2		16.4			3.4			9.8			1.8	0.1
Delay (s)		49.2			32.0			16.5			6.9	4.7
Level of Service		D			C			B			A	A
Approach Delay (s)		49.2			32.0			16.5			6.9	
Approach LOS		D			C			B			A	

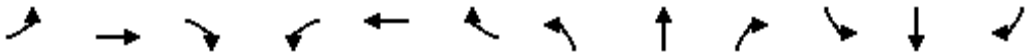
Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



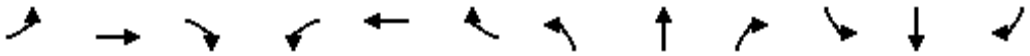
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	8	139	10	0	640	0	0	558	106
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.96		1.00			0.98	
Flpb, ped/bikes				0.99	1.00	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.98	
Flt Protected				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)				1588	3192	1242		2935			2704	
Flt Permitted				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (perm)				1588	3192	1242		2935			2704	
Peak-hour factor, PHF	0.91	0.97	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	0	0	0	9	153	11	0	703	0	0	613	116
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	153	11	0	703	0	0	729	0
Confl. Peds. (#/hr)			4	4		23			27			56
Confl. Bikes (#/hr)			1			2						3
Heavy Vehicles (%)	9%	0%	0%	0%	0%	10%	3%	7%	0%	0%	4%	2%
Parking (#/hr)								0			26	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				27.0	27.0	27.0		65.0			65.0	
Effective Green, g (s)				27.0	27.0	27.0		65.0			65.0	
Actuated g/C Ratio				0.27	0.27	0.27		0.65			0.65	
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Grp Cap (vph)				428	861	335		1907			1757	
v/s Ratio Prot					c0.05			0.24			c0.27	
v/s Ratio Perm				0.01		0.01						
v/c Ratio				0.02	0.18	0.03		0.37			0.41	
Uniform Delay, d1				26.8	28.0	26.9		8.1			8.4	
Progression Factor				1.00	1.00	1.00		0.44			0.70	
Incremental Delay, d2				0.1	0.5	0.2		0.5			0.7	
Delay (s)				26.9	28.4	27.1		4.1			6.5	
Level of Service				C	C	C		A			A	
Approach Delay (s)		0.0			28.3			4.1			6.5	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



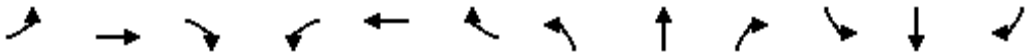
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	278	42	0	0	0	0	530	65	0	464	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.99						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		2873						2591			2589	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		2873						2591			2589	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	119	305	46	0	0	0	0	582	71	0	510	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	470	0	0	0	0	0	653	0	0	510	0
Confl. Peds. (#/hr)	3		5			3			29			32
Confl. Bikes (#/hr)			4						2			2
Heavy Vehicles (%)	7%	3%	2%	0%	0%	0%	0%	7%	3%	3%	4%	0%
Parking (#/hr)								0			18	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		37.0						55.0			55.0	
Effective Green, g (s)		37.0						55.0			55.0	
Actuated g/C Ratio		0.37						0.55			0.55	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		1063						1425			1423	
v/s Ratio Prot								c0.25			0.20	
v/s Ratio Perm		0.16										
v/c Ratio		0.44						0.46			0.36	
Uniform Delay, d1		23.7						13.5			12.6	
Progression Factor		1.00						0.71			0.51	
Incremental Delay, d2		1.3						1.0			0.7	
Delay (s)		25.1						10.6			7.1	
Level of Service		C						B			A	
Approach Delay (s)		25.1			0.0			10.6			7.1	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
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												
Volume (vph)	48	324	39	20	218	73	0	407	3	0	556	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		2.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.98	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.96			1.00			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1513	2864		1569	2800			2906			3023	
Flt Permitted	0.53	1.00		0.46	1.00			1.00			1.00	
Satd. Flow (perm)	838	2864		762	2800			2906			3023	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	53	356	43	22	240	80	0	447	3	0	611	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	53	399	0	22	320	0	0	450	0	0	635	0
Confl. Peds. (#/hr)	16		23	23		16			17			25
Confl. Bikes (#/hr)			3			2						2
Heavy Vehicles (%)	4%	9%	10%	0%	10%	5%	17%	8%	0%	5%	3%	5%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		custom	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			3 8								
Actuated Green, G (s)	33.0	33.0		45.0	43.0			49.0			49.0	
Effective Green, g (s)	33.0	33.0		45.0	43.0			49.0			49.0	
Actuated g/C Ratio	0.33	0.33		0.45	0.43			0.49			0.49	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	276	945		342	1204			1423			1481	
v/s Ratio Prot		c0.14			c0.11			0.15			c0.21	
v/s Ratio Perm	0.06			0.03								
v/c Ratio	0.19	0.42		0.06	0.27			0.32			0.43	
Uniform Delay, d1	24.0	26.1		15.6	18.3			15.4			16.5	
Progression Factor	1.00	1.00		1.00	1.00			0.50			0.43	
Incremental Delay, d2	1.5	1.4		0.4	0.5			0.4			0.9	
Delay (s)	25.5	27.5		15.9	18.9			8.1			8.0	
Level of Service	C	C		B	B			A			A	
Approach Delay (s)		27.2			18.7			8.1			8.0	
Approach LOS		C			B			A			A	

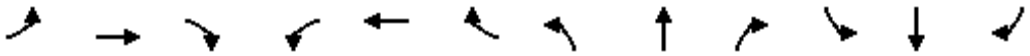
Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	558	0	250	568	1	0	320	185	0	405	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1628	3288		1588	3143			2835			2897	
Flt Permitted	0.38	1.00		0.36	1.00			1.00			1.00	
Satd. Flow (perm)	646	3288		598	3143			2835			2897	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	176	613	0	275	624	1	0	352	203	0	445	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	176	613	0	275	625	0	0	555	0	0	570	0
Confl. Peds. (#/hr)	1		5	5		1			15			20
Confl. Bikes (#/hr)			3									2
Heavy Vehicles (%)	5%	4%	0%	4%	5%	100%	0%	9%	9%	0%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA		pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	47.0	47.0		64.0	63.0			29.0			29.0	
Effective Green, g (s)	47.0	47.0		64.0	63.0			29.0			29.0	
Actuated g/C Ratio	0.47	0.47		0.64	0.63			0.29			0.29	
Clearance Time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	303	1545		511	1980			822			840	
v/s Ratio Prot		0.19		c0.07	0.20			0.20			c0.20	
v/s Ratio Perm	c0.27			0.27								
v/c Ratio	0.58	0.40		0.54	0.32			0.68			0.68	
Uniform Delay, d1	19.3	17.3		15.6	8.5			31.3			31.4	
Progression Factor	1.00	1.00		1.00	1.00			0.91			0.97	
Incremental Delay, d2	7.9	0.8		4.0	0.4			4.1			4.1	
Delay (s)	27.2	18.0		19.6	9.0			32.7			34.6	
Level of Service	C	B		B	A			C			C	
Approach Delay (s)		20.1			12.2			32.7			34.6	
Approach LOS		C			B			C			C	

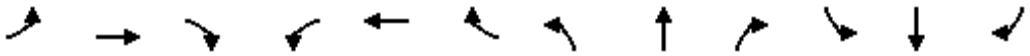
Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	72	31	46	20	21	0	636	50	0	497	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.96			0.97			0.99			1.00	
Flt Protected		1.00			0.97			1.00			1.00	
Satd. Flow (prot)		1561			1439			2672			3019	
Flt Permitted		1.00			0.82			1.00			1.00	
Satd. Flow (perm)		1561			1210			2672			3019	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	79	34	51	22	23	0	699	55	0	546	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	113	0	0	96	0	0	754	0	0	547	0
Confl. Peds. (#/hr)	5		15	15		5			39			16
Confl. Bikes (#/hr)			2			1			1			
Heavy Vehicles (%)	0%	3%	0%	9%	10%	5%	0%	8%	2%	1%	4%	0%
Parking (#/hr)								24	24		0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.0			28.0			64.0			64.0	
Effective Green, g (s)		28.0			28.0			64.0			64.0	
Actuated g/C Ratio		0.28			0.28			0.64			0.64	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		437			338			1710			1932	
v/s Ratio Prot		0.07						c0.28			0.18	
v/s Ratio Perm					c0.08							
v/c Ratio		0.26			0.28			0.44			0.28	
Uniform Delay, d1		27.9			28.2			9.0			7.9	
Progression Factor		1.00			1.00			0.41			0.48	
Incremental Delay, d2		1.4			2.1			0.7			0.3	
Delay (s)		29.4			30.3			4.5			4.1	
Level of Service		C			C			A			A	
Approach Delay (s)		29.4			30.3			4.5			4.1	
Approach LOS		C			C			A			A	

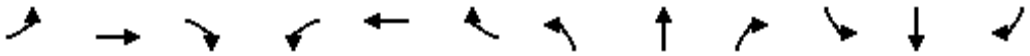
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	202	140	145	0	538	0	0	493	33
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					2717			2495			2858	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					2717			2495			2858	
Peak-hour factor, PHF	0.91	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	222	154	159	0	591	0	0	542	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	535	0	0	591	0	0	578	0
Confl. Peds. (#/hr)			53	53		32			25			45
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	6%	0%	0%	5%	6%	3%	0%	8%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								54			12	12
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					42.0			50.0			50.0	
Effective Green, g (s)					42.0			50.0			50.0	
Actuated g/C Ratio					0.42			0.50			0.50	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					1141			1247			1429	
v/s Ratio Prot								c0.24			0.20	
v/s Ratio Perm					0.20							
v/c Ratio					0.47			0.47			0.40	
Uniform Delay, d1					20.9			16.4			15.7	
Progression Factor					1.00			0.12			0.50	
Incremental Delay, d2					1.4			1.2			0.8	
Delay (s)					22.3			3.2			8.6	
Level of Service					C			A			A	
Approach Delay (s)		0.0			22.3			3.2			8.6	
Approach LOS		A			C			A			A	

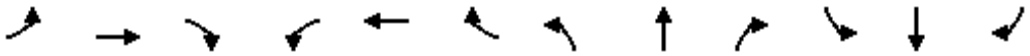
Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



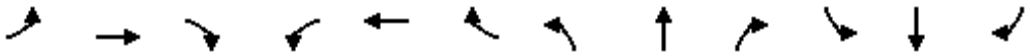
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	166	88	0	0	0	0	498	52	0	496	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0					4.0			4.0	
Lane Util. Factor		0.95	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.97					1.00			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			1.00	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.99	1.00					1.00			1.00	
Satd. Flow (prot)		3217	1455					2966			2781	
Flt Permitted		0.99	1.00					1.00			1.00	
Satd. Flow (perm)		3217	1455					2966			2781	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.88	0.91	0.92	0.91	0.91	0.88	0.91	0.91
Adj. Flow (vph)	37	182	97	0	0	0	0	547	57	0	545	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	219	97	0	0	0	0	604	0	0	545	0
Confl. Peds. (#/hr)	12		16			12			9			17
Heavy Vehicles (%)	6%	5%	2%	2%	0%	0%	2%	10%	6%	4%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		20	
Turn Type	Perm	NA	Perm					NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4		4									
Actuated Green, G (s)		36.0	36.0					55.0			55.0	
Effective Green, g (s)		36.0	36.0					55.0			55.0	
Actuated g/C Ratio		0.36	0.36					0.55			0.55	
Clearance Time (s)		5.0	5.0					4.0			4.0	
Lane Grp Cap (vph)		1158	523					1631			1529	
v/s Ratio Prot								c0.20			0.20	
v/s Ratio Perm		0.07	0.07									
v/c Ratio		0.19	0.19					0.37			0.36	
Uniform Delay, d1		22.0	21.9					12.7			12.6	
Progression Factor		1.00	1.00					0.33			0.85	
Incremental Delay, d2		0.4	0.8					0.5			0.6	
Delay (s)		22.3	22.7					4.7			11.3	
Level of Service		C	C					A			B	
Approach Delay (s)		22.5			0.0			4.7			11.3	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.8%	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												
Volume (vph)	0	0	0	748	288	193	405	502	0	0	645	125
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				0.97	1.00	1.00	0.91	0.91			0.95	
Frpb, ped/bikes				1.00	1.00	0.96	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	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	0.99			1.00	
Satd. Flow (prot)				3175	1657	1353	1446	2735			2891	
Flt Permitted				0.95	1.00	1.00	0.95	0.67			1.00	
Satd. Flow (perm)				3175	1657	1353	1446	1857			2891	
Peak-hour factor, PHF	0.91	0.99	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	0	0	0	822	316	212	445	552	0	0	709	137
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	822	316	212	325	672	0	0	846	0
Confl. Peds. (#/hr)			2	2		19	13		9			13
Confl. Bikes (#/hr)						1			2			2
Heavy Vehicles (%)	7%	0%	0%	1%	5%	5%	4%	10%	0%	0%	5%	6%
Parking (#/hr)								0			0	
Turn Type				Split	NA	Perm	Prot	NA			NA	
Protected Phases				8	8		5	5 6			6 16	
Permitted Phases						8						
Actuated Green, G (s)				26.0	26.0	26.0	33.0	47.0			29.0	
Effective Green, g (s)				26.0	26.0	26.0	33.0	47.0			27.0	
Actuated g/C Ratio				0.26	0.26	0.26	0.33	0.47			0.27	
Clearance Time (s)				4.0	4.0	4.0	4.0					
Lane Grp Cap (vph)				825	430	351	477	1162			780	
v/s Ratio Prot				c0.26	0.19		c0.22	0.19			c0.29	
v/s Ratio Perm						0.16		0.08				
v/c Ratio				1.00	0.73	0.60	0.68	0.58			1.08	
Uniform Delay, d1				37.0	33.8	32.5	29.0	19.3			36.5	
Progression Factor				1.00	1.00	1.00	0.47	0.47			0.80	
Incremental Delay, d2				30.5	10.7	7.5	3.3	0.9			57.3	
Delay (s)				67.4	44.5	40.0	17.0	9.9			86.5	
Level of Service				E	D	D	B	A			F	
Approach Delay (s)		0.0			57.7			12.2			86.5	
Approach LOS		A			E			B			F	

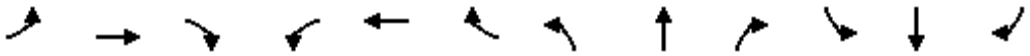
Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	172	221	0	0	0	0	808	253	259	880	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0					2.0		4.0	4.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98					0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3155	1471					2810		1589	3031	
Flt Permitted		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3155	1471					2810		1589	3031	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	165	189	243	0	0	0	0	888	278	285	967	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	354	243	0	0	0	0	1166	0	285	967	0
Confl. Peds. (#/hr)			6						3	3		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	7%	5%	2%	1%	0%	0%	0%	8%	2%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Split	NA	Perm					NA		Prot	NA	
Protected Phases	4	4						2 12		1	1 2	
Permitted Phases			4									
Actuated Green, G (s)		26.0	26.0					42.0		22.0	42.0	
Effective Green, g (s)		26.0	26.0					42.0		22.0	42.0	
Actuated g/C Ratio		0.26	0.26					0.42		0.22	0.42	
Clearance Time (s)		4.0	4.0							4.0		
Lane Grp Cap (vph)		820	382					1180		349	1273	
v/s Ratio Prot		0.11						c0.41		c0.18	0.32	
v/s Ratio Perm			c0.17									
v/c Ratio		0.43	0.64					0.99		0.82	0.76	
Uniform Delay, d1		30.8	32.8					28.8		37.1	24.7	
Progression Factor		1.00	1.00					0.89		1.06	0.89	
Incremental Delay, d2		1.7	7.9					20.6		2.0	0.4	
Delay (s)		32.5	40.7					46.1		41.4	22.4	
Level of Service		C	D					D		D	C	
Approach Delay (s)		35.8			0.0			46.1			26.7	
Approach LOS		D			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

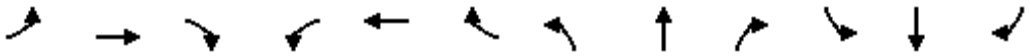
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	124	52	100	202	81	0	959	37	0	904	247
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	0.91	0.91		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.98			1.00			0.99	
Flpb, ped/bikes	0.99	1.00		0.95	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.96			0.99			0.97	
Flt Protected	0.95	0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1493	2925		1512	2865			2868			2901	
Flt Permitted	0.43	0.75		0.58	1.00			1.00			1.00	
Satd. Flow (perm)	679	2221		927	2865			2868			2901	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	191	136	57	110	222	89	0	1054	41	0	993	271
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	120	264	0	110	311	0	0	1095	0	0	1264	0
Confl. Peds. (#/hr)	31		71	71		31			41			22
Confl. Bikes (#/hr)			1						2			
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	0%	8%	8%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	pm+pt	NA		Perm	NA			NA			NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	33.0	33.0		22.0	22.0			57.0			57.0	
Effective Green, g (s)	33.0	33.0		22.0	22.0			57.0			57.0	
Actuated g/C Ratio	0.33	0.33		0.22	0.22			0.57			0.57	
Clearance Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	289	789		203	630			1634			1653	
v/s Ratio Prot	c0.03	0.03			0.11			0.38			c0.44	
v/s Ratio Perm	0.10	0.08		c0.12								
v/c Ratio	0.42	0.33		0.54	0.49			0.67			0.76	
Uniform Delay, d1	24.6	25.2		34.5	34.1			15.0			16.4	
Progression Factor	1.00	1.00		1.00	1.00			0.55			0.83	
Incremental Delay, d2	4.4	1.1		10.0	2.8			1.9			2.3	
Delay (s)	29.0	26.4		44.5	36.9			10.2			16.0	
Level of Service	C	C		D	D			B			B	
Approach Delay (s)		27.2			38.9			10.2			16.0	
Approach LOS		C			D			B			B	

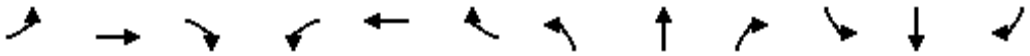
Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	0	14	2	0	11	0	956	3	0	637	299
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Util. Factor	0.97		1.00		1.00			0.95			0.95	
Frpb, ped/bikes	1.00		0.99		0.98			1.00			0.98	
Flpb, ped/bikes	0.98		1.00		1.00			1.00			1.00	
Frt	1.00		0.85		0.88			1.00			0.95	
Flt Protected	0.95		1.00		0.99			1.00			1.00	
Satd. Flow (prot)	3044		1409		1550			2934			2874	
Flt Permitted	0.75		1.00		0.99			1.00			1.00	
Satd. Flow (perm)	2398		1409		1550			2934			2874	
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)	119	0	15	2	0	12	0	1051	3	0	700	329
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	119	0	15	0	14	0	0	1054	0	0	1029	0
Confl. Peds. (#/hr)	9		1	1		9			21			14
Confl. Bikes (#/hr)									4			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	3%	0%
Parking (#/hr)								0			0	
Turn Type	custom		custom	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	28.0		28.0		28.0			63.0			63.0	
Effective Green, g (s)	28.0		28.0		28.0			63.0			63.0	
Actuated g/C Ratio	0.28		0.28		0.28			0.63			0.63	
Clearance Time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Grp Cap (vph)	671		394		434			1848			1810	
v/s Ratio Prot								c0.36			0.36	
v/s Ratio Perm	c0.05		0.01		0.01							
v/c Ratio	0.18		0.04		0.03			0.57			0.57	
Uniform Delay, d1	27.3		26.2		26.2			10.7			10.7	
Progression Factor	1.00		1.00		1.00			1.12			0.28	
Incremental Delay, d2	0.6		0.2		0.1			1.1			0.9	
Delay (s)	27.9		26.4		26.3			13.1			3.8	
Level of Service	C		C		C			B			A	
Approach Delay (s)		27.7			26.3			13.1			3.8	
Approach LOS		C			C			B			A	

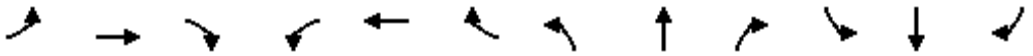
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	16	37	6	28	70	0	902	10	0	563	147
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.95			0.93			1.00			0.98	
Flpb, ped/bikes		0.96			0.99			1.00			1.00	
Frt		0.96			0.91			1.00			0.97	
Flt Protected		0.97			1.00			1.00			1.00	
Satd. Flow (prot)		1429			1411			2876			2821	
Flt Permitted		0.78			0.99			1.00			1.00	
Satd. Flow (perm)		1149			1395			2876			2821	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	95	18	41	7	31	77	0	991	11	0	619	162
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	154	0	0	115	0	0	1002	0	0	781	0
Confl. Peds. (#/hr)	60		129	129		60			39			14
Confl. Bikes (#/hr)			4			6			5			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	8%	20%	0%	6%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0			62.0			62.0	
Effective Green, g (s)		30.0			30.0			62.0			62.0	
Actuated g/C Ratio		0.30			0.30			0.62			0.62	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		344			418			1783			1749	
v/s Ratio Prot								c0.35			0.28	
v/s Ratio Perm		c0.13			0.08							
v/c Ratio		0.45			0.28			0.56			0.45	
Uniform Delay, d1		28.3			26.7			11.1			10.0	
Progression Factor		1.00			1.00			1.11			0.26	
Incremental Delay, d2		4.2			1.6			1.2			0.7	
Delay (s)		32.5			28.3			13.5			3.3	
Level of Service		C			C			B			A	
Approach Delay (s)		32.5			28.3			13.5			3.3	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		

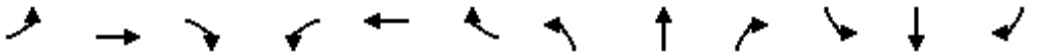
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	123	37	44	254	68	0	656	95	0	312	192
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.85		0.98			0.97	
Flpb, ped/bikes	0.92	1.00	1.00	0.98	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.98			0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1472	1570	1369	1559	1600	1188		2747			2675	
Flt Permitted	0.46	1.00	1.00	0.65	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	716	1570	1369	1064	1600	1188		2747			2675	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	40	135	41	48	279	75	0	721	104	0	343	211
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	40	135	41	48	279	75	0	825	0	0	554	0
Confl. Peds. (#/hr)	98		20	20		98			23			15
Confl. Bikes (#/hr)			2			5			1			3
Heavy Vehicles (%)	0%	7%	0%	0%	5%	2%	0%	10%	8%	6%	9%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	36.0	36.0	36.0	36.0	36.0	36.0		55.0			55.0	
Effective Green, g (s)	36.0	36.0	36.0	36.0	36.0	36.0		55.0			55.0	
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36		0.55			0.55	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Grp Cap (vph)	257	565	492	383	576	427		1510			1471	
v/s Ratio Prot		0.09			c0.17			c0.30			0.21	
v/s Ratio Perm	0.06		0.03	0.05		0.06						
v/c Ratio	0.16	0.24	0.08	0.13	0.48	0.18		0.55			0.38	
Uniform Delay, d1	21.7	22.4	21.1	21.4	24.8	21.9		14.5			12.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.72			0.29	
Incremental Delay, d2	1.3	1.0	0.3	0.7	2.9	0.9		0.6			0.7	
Delay (s)	23.0	23.4	21.4	22.1	27.7	22.8		11.1			4.4	
Level of Service	C	C	C	C	C	C		B			A	
Approach Delay (s)		23.0			26.1			11.1			4.4	
Approach LOS		C			C			B			A	

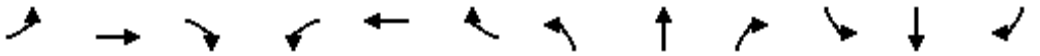
Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	862	108	126	1016	259	0	619	115	0	334	83
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	0.93		1.00	0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1564	4305		1504	3099	1337		1491	1214		1657	1249
Flt Permitted	0.11	1.00		0.16	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	188	4305		255	3099	1337		1491	1214		1657	1249
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	144	947	119	138	1116	285	0	680	126	0	367	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	144	1066	0	138	1116	285	0	680	126	0	367	91
Confl. Peds. (#/hr)	28		24	24		28			52			29
Confl. Bikes (#/hr)						4			3			1
Heavy Vehicles (%)	2%	4%	4%	6%	3%	2%	5%	5%	1%	3%	5%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	42.0	35.0		42.0	35.0	35.0		45.0	45.0		45.0	45.0
Effective Green, g (s)	42.0	35.0		42.0	35.0	35.0		45.0	45.0		45.0	45.0
Actuated g/C Ratio	0.42	0.35		0.42	0.35	0.35		0.45	0.45		0.45	0.45
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	5.0	3.0		5.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	175	1506		194	1084	467		670	546		745	562
v/s Ratio Prot	c0.06	0.25		0.05	c0.36			c0.46			0.22	
v/s Ratio Perm	0.29			0.25		0.21			0.10			0.07
v/c Ratio	0.82	0.71		0.71	1.03	0.61		1.01	0.23		0.49	0.16
Uniform Delay, d1	22.8	28.1		19.8	32.5	26.9		27.5	16.9		19.4	16.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.72	0.58		0.88	0.96
Incremental Delay, d2	28.3	2.8		14.2	35.2	5.8		34.7	0.8		2.2	0.6
Delay (s)	51.2	30.9		34.0	67.7	32.7		54.6	10.6		19.4	16.3
Level of Service	D	C		C	E	C		D	B		B	B
Approach Delay (s)		33.3			58.2			47.7			18.8	
Approach LOS		C			E			D			B	

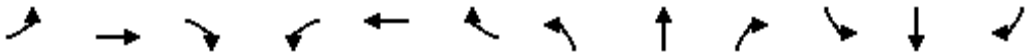
Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	0	35	2	0	1	0	703	2	0	342	23
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.95			1.00			0.99	
Flt Protected		0.97			0.97			1.00			1.00	
Satd. Flow (prot)		1507			1624			1448			1464	
Flt Permitted		0.82			0.88			1.00			1.00	
Satd. Flow (perm)		1267			1470			1448			1464	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	55	0	38	2	0	1	0	773	2	0	376	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	93	0	0	3	0	0	775	0	0	401	0
Confl. Peds. (#/hr)	2		7	7		2			8			10
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	6%	0%	8%	0%	6%	0%	4%	8%	50%	0%	6%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		11.3			11.3			80.7			80.7	
Effective Green, g (s)		11.3			11.3			80.7			80.7	
Actuated g/C Ratio		0.11			0.11			0.81			0.81	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		143			166			1168			1181	
v/s Ratio Prot								c0.54			0.27	
v/s Ratio Perm		c0.07			0.00							
v/c Ratio		0.65			0.02			0.66			0.34	
Uniform Delay, d1		42.5			39.4			4.0			2.6	
Progression Factor		1.00			1.00			0.00			0.66	
Incremental Delay, d2		13.4			0.1			1.3			0.7	
Delay (s)		55.8			39.5			1.3			2.3	
Level of Service		E			D			A			A	
Approach Delay (s)		55.8			39.5			1.3			2.3	
Approach LOS		E			D			A			A	

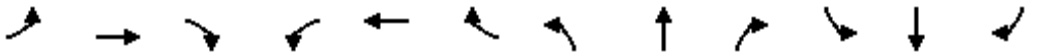
Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



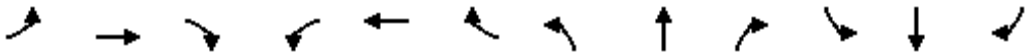
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	20	11	0	3	0	758	0	0	298	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.90			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.94			1.00			1.00	
Frt		0.86			0.97			1.00			1.00	
Flt Protected		1.00			0.96			1.00			1.00	
Satd. Flow (prot)		1406			1586			1297			1446	
Flt Permitted		1.00			0.86			1.00			1.00	
Satd. Flow (perm)		1406			1426			1297			1446	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	0	0	22	12	0	3	0	833	0	0	327	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	22	0	0	15	0	0	833	0	0	334	0
Confl. Peds. (#/hr)			30	30					6			9
Confl. Bikes (#/hr)			2						2			2
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	10%	0%	4%	8%	0%
Parking (#/hr)								16			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			72.0			72.0	
Effective Green, g (s)		20.0			20.0			72.0			72.0	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		281			285			933			1041	
v/s Ratio Prot		c0.02						c0.64			0.23	
v/s Ratio Perm					0.01							
v/c Ratio		0.08			0.05			0.89			0.32	
Uniform Delay, d1		32.5			32.3			11.0			5.1	
Progression Factor		1.00			1.00			1.00			0.80	
Incremental Delay, d2		0.5			0.4			12.7			0.8	
Delay (s)		33.1			32.7			23.7			4.9	
Level of Service		C			C			C			A	
Approach Delay (s)		33.1			32.7			23.7			4.9	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



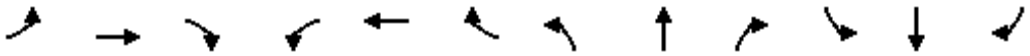
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	257	93	68	358	148	0	759	88	0	294	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.74		1.00	0.84		1.00	0.86
Flpb, ped/bikes	0.91	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1393	1600	1245	1501	1585	1039		1289	1115		1254	1065
Flt Permitted	0.19	1.00	1.00	0.37	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	280	1600	1245	586	1585	1039		1289	1115		1254	1065
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	74	282	102	75	393	163	0	834	97	0	323	63
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	282	102	75	393	163	0	834	97	0	323	63
Confl. Peds. (#/hr)	117		28	28		117			43			39
Confl. Bikes (#/hr)			6			3						1
Heavy Vehicles (%)	4%	5%	5%	3%	6%	2%	1%	8%	12%	6%	11%	19%
Parking (#/hr)								20			20	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	23.0	23.0	23.0	23.0	23.0	23.0		56.0	56.0		56.0	56.0
Effective Green, g (s)	23.0	23.0	23.0	23.0	23.0	23.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26		0.62	0.62		0.62	0.62
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	71	408	318	149	405	265		802	693		780	662
v/s Ratio Prot		0.18			0.25			c0.65			0.26	
v/s Ratio Perm	c0.26		0.08	0.13		0.16			0.09			0.06
v/c Ratio	1.04	0.69	0.32	0.50	0.97	0.62		1.04	0.14		0.41	0.10
Uniform Delay, d1	33.5	30.3	27.2	28.6	33.2	29.6		17.0	7.0		8.7	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.63	0.57		1.00	1.00
Incremental Delay, d2	119.0	9.3	2.6	11.6	37.9	10.2		30.7	0.2		1.6	0.3
Delay (s)	152.5	39.5	29.8	40.3	71.1	39.8		41.4	4.1		10.3	7.1
Level of Service	F	D	C	D	E	D		D	A		B	A
Approach Delay (s)		55.6			59.3			37.5			9.8	
Approach LOS		E			E			D			A	

Intersection Summary			
HCM 2000 Control Delay	42.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	76.0%	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												
Volume (vph)	58	44	18	43	77	75	0	824	7	0	519	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.97			0.93			1.00			0.99	
Flpb, ped/bikes		0.95			0.97			1.00			1.00	
Frt		0.98			0.95			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1556			1487			1333			1234	
Flt Permitted		0.68			0.92			1.00			1.00	
Satd. Flow (perm)		1085			1380			1333			1234	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	64	48	20	47	85	82	0	905	8	0	570	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	132	0	0	214	0	0	913	0	0	610	0
Confl. Peds. (#/hr)	73		75	75		73			59			40
Confl. Bikes (#/hr)			1			1			1			2
Heavy Vehicles (%)	5%	0%	0%	0%	0%	6%	6%	8%	0%	0%	8%	3%
Parking (#/hr)								14			24	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		19.0			19.0			63.0			63.0	
Effective Green, g (s)		19.0			19.0			63.0			63.0	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		229			291			933			863	
v/s Ratio Prot								c0.68			0.49	
v/s Ratio Perm		0.12			c0.16							
v/c Ratio		0.58			0.74			0.98			0.71	
Uniform Delay, d1		31.9			33.2			12.9			8.0	
Progression Factor		1.00			1.00			0.80			0.64	
Incremental Delay, d2		10.2			15.2			18.9			4.7	
Delay (s)		42.0			48.4			29.2			9.8	
Level of Service		D			D			C			A	
Approach Delay (s)		42.0			48.4			29.2			9.8	
Approach LOS		D			D			C			A	

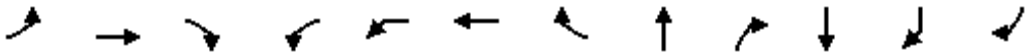
Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	176	9	97	132	33	0	669	32	0	535	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		0.99			0.97			1.00			1.00	
Frt		0.99			0.98			0.99			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1702			1582			1287			1317	
Flt Permitted		0.88			0.69			1.00			1.00	
Satd. Flow (perm)		1503			1106			1287			1317	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	49	193	10	107	145	36	0	735	35	0	588	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	252	0	0	288	0	0	770	0	0	612	0
Confl. Peds. (#/hr)	49		88	88		49			32			43
Confl. Bikes (#/hr)			2			1						1
Heavy Vehicles (%)	9%	1%	0%	4%	3%	13%	0%	7%	3%	2%	10%	0%
Parking (#/hr)								20			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			58.0			58.0	
Effective Green, g (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		400			294			829			848	
v/s Ratio Prot								c0.60			0.46	
v/s Ratio Perm		0.17			c0.26							
v/c Ratio		0.63			0.98			0.93			0.72	
Uniform Delay, d1		29.1			32.8			14.2			10.6	
Progression Factor		1.00			1.00			0.52			0.47	
Incremental Delay, d2		4.4			46.8			2.4			4.0	
Delay (s)		33.5			79.5			9.7			9.0	
Level of Service		C			E			A			A	
Approach Delay (s)		33.5			79.5			9.7			9.0	
Approach LOS		C			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	75	349	52	92	92	495	173	604	98	486	130	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	12	11	10	11	12	11	11	11	11	11
Total Lost time (s)	4.0	4.0			3.0	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			1.00	0.95		1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.92		1.00	0.99	1.00	0.89	
Flpb, ped/bikes	0.90	1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.98			1.00	0.96		1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1296	3016			1347	2678		862	721	1402	963	
Flt Permitted	0.29	1.00			0.31	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (perm)	396	3016			433	2678		862	721	1402	963	
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)	82	384	57	101	101	544	190	664	108	534	143	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	82	441	0	0	202	734	0	664	108	534	172	0
Confl. Peds. (#/hr)	155						155				50	
Confl. Bikes (#/hr)							5		1		3	
Heavy Vehicles (%)	11%	8%	4%	15%	22%	8%	11%	7%	6%	8%	18%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	3	0
Parking (#/hr)								74	74	6	6	
Turn Type	Perm	NA		pm+pt	pm+pt	NA		NA	Perm	NA	Perm	
Protected Phases		4		3	3	8		2		6		
Permitted Phases	4			8	8				2		6	
Actuated Green, G (s)	21.0	21.0			29.0	29.0		38.0	38.0	38.0	38.0	
Effective Green, g (s)	21.0	21.0			29.0	29.0		38.0	38.0	38.0	38.0	
Actuated g/C Ratio	0.23	0.23			0.32	0.32		0.42	0.42	0.42	0.42	
Clearance Time (s)	4.0	4.0			3.0	4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	92	703			190	862		363	304	591	406	
v/s Ratio Prot		0.15			c0.06	0.27		c0.77		0.38		
v/s Ratio Perm	0.21				c0.28				0.15		0.18	
v/c Ratio	0.89	0.63			1.06	0.85		1.83	0.36	0.90	0.42	
Uniform Delay, d1	33.4	31.0			30.1	28.5		26.0	17.7	24.3	18.3	
Progression Factor	1.00	1.00			1.00	1.00		0.98	0.95	0.80	0.85	
Incremental Delay, d2	59.6	1.8			83.0	8.1		382.2	2.7	13.0	0.5	
Delay (s)	93.0	32.7			113.1	36.6		407.8	19.5	32.3	16.1	
Level of Service	F	C			F	D		F	B	C	B	
Approach Delay (s)		42.2				53.1		353.5		28.4		
Approach LOS		D				D		F		C		

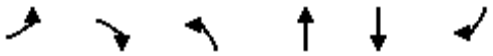
Intersection Summary			
HCM 2000 Control Delay	127.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NEL	NER	NER2
Lane Configurations			
Volume (vph)	208	204	37
Ideal Flow (vphpl)	1800	1800	1800
Lane Width	11	12	12
Total Lost time (s)	4.0	4.0	
Lane Util. Factor	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	
Frt	1.00	0.85	
Flt Protected	0.95	1.00	
Satd. Flow (prot)	1401	2338	
Flt Permitted	0.95	1.00	
Satd. Flow (perm)	1401	2338	
Peak-hour factor, PHF	0.91	0.91	0.91
Adj. Flow (vph)	229	224	41
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	229	265	0
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Heavy Vehicles (%)	18%	15%	16%
Bus Blockages (#/hr)	0	0	0
Parking (#/hr)			
Turn Type	NA	Perm	
Protected Phases	9		
Permitted Phases		9	
Actuated Green, G (s)	11.0	11.0	
Effective Green, g (s)	11.0	11.0	
Actuated g/C Ratio	0.12	0.12	
Clearance Time (s)	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	
Lane Grp Cap (vph)	171	285	
v/s Ratio Prot	c0.16		
v/s Ratio Perm		0.11	
v/c Ratio	1.34	0.93	
Uniform Delay, d1	39.5	39.1	
Progression Factor	1.00	1.00	
Incremental Delay, d2	186.6	34.7	
Delay (s)	226.1	73.9	
Level of Service	F	E	
Approach Delay (s)	144.4		
Approach LOS	F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	3	2	0	0	0	757	0	0	563	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			1.00			1.00			1.00	
Flpb, ped/bikes		0.99			0.94			1.00			1.00	
Frt		0.92			1.00			1.00			1.00	
Flt Protected		0.98			0.95			1.00			1.00	
Satd. Flow (prot)		1531			807			1596			1672	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		1562			850			1596			1672	
Peak-hour factor, PHF	0.91	0.94	0.91	0.91	0.94	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	2	0	3	2	0	0	0	832	0	0	619	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	5	0	0	2	0	0	832	0	0	621	0
Confl. Peds. (#/hr)	1		2	2		1			2			1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	100%	0%	0%	14%	9%	0%	25%	4%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		1.6			1.6			78.4			78.4	
Effective Green, g (s)		1.6			1.6			78.4			78.4	
Actuated g/C Ratio		0.02			0.02			0.87			0.87	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		27			15			1390			1456	
v/s Ratio Prot								c0.52			0.37	
v/s Ratio Perm		c0.00			0.00							
v/c Ratio		0.19			0.13			0.60			0.43	
Uniform Delay, d1		43.6			43.5			1.6			1.2	
Progression Factor		1.00			1.00			1.00			0.46	
Incremental Delay, d2		6.8			8.3			1.9			0.4	
Delay (s)		50.4			51.8			3.5			0.9	
Level of Service		D			D			A			A	
Approach Delay (s)		50.4			51.8			3.5			0.9	
Approach LOS		D			D			A			A	

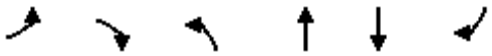
Intersection Summary			
HCM 2000 Control Delay	2.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1	0	775	645	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0		5.0	5.0	
Lane Util. Factor		1.00		1.00	1.00	
Frpb, ped/bikes		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	
Frt		0.85		1.00	1.00	
Flt Protected		1.00		1.00	1.00	
Satd. Flow (prot)		765		1642	1582	
Flt Permitted		1.00		1.00	1.00	
Satd. Flow (perm)		765		1642	1582	
Peak-hour factor, PHF	0.91	0.91	0.96	0.91	0.91	0.91
Adj. Flow (vph)	0	1	0	852	709	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	1	0	852	709	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	100%	50%	6%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	3
Turn Type		Perm		NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4				6
Actuated Green, G (s)		1.3		89.7	89.7	
Effective Green, g (s)		1.3		89.7	89.7	
Actuated g/C Ratio		0.01		0.90	0.90	
Clearance Time (s)		4.0		5.0	5.0	
Vehicle Extension (s)		3.0		3.0	3.0	
Lane Grp Cap (vph)		9		1472	1419	
v/s Ratio Prot				c0.52	0.45	
v/s Ratio Perm		c0.00				
v/c Ratio		0.11		0.58	0.50	
Uniform Delay, d1		48.8		1.1	1.0	
Progression Factor		1.00		0.56	1.00	
Incremental Delay, d2		5.4		1.0	1.3	
Delay (s)		54.2		1.6	2.2	
Level of Service		D		A	A	
Approach Delay (s)	54.2			1.6	2.2	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	1.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

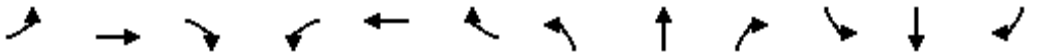
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	32	17	0	745	574	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)	4.0	4.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.97		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1096	1012		1171	1138	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1096	1012		1171	1138	
Peak-hour factor, PHF	0.91	0.91	0.92	0.91	0.91	0.91
Adj. Flow (vph)	35	19	0	819	631	20
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	35	19	0	819	651	0
Confl. Peds. (#/hr)		1				3
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	56%	47%	29%	4%	7%	39%
Parking (#/hr)				40	38	
Turn Type	NA	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Actuated Green, G (s)	6.3	6.3		84.7	84.7	
Effective Green, g (s)	6.3	6.3		84.7	84.7	
Actuated g/C Ratio	0.06	0.06		0.85	0.85	
Clearance Time (s)	4.0	4.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	69	63		991	963	
v/s Ratio Prot	c0.03			c0.70	0.57	
v/s Ratio Perm		0.02				
v/c Ratio	0.51	0.30		0.83	0.68	
Uniform Delay, d1	45.3	44.7		3.9	2.7	
Progression Factor	1.00	1.00		1.55	0.83	
Incremental Delay, d2	5.8	2.7		4.4	3.4	
Delay (s)	51.1	47.4		10.5	5.7	
Level of Service	D	D		B	A	
Approach Delay (s)	49.8			10.5	5.7	
Approach LOS	D			B	A	

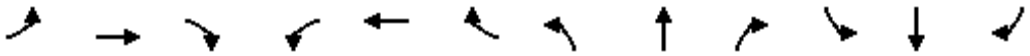
Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



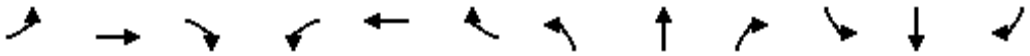
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	388	0	187	15	0	15	0	471	15	15	467	182
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0			12.0		2.0	12.0	12.0
Lane Util. Factor	1.00		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	0.98
Flpb, ped/bikes	1.00		1.00		1.00			1.00		0.99	1.00	1.00
Frt	1.00		0.85		0.93			1.00		1.00	1.00	0.85
Flt Protected	0.95		1.00		0.98			1.00		0.95	1.00	1.00
Satd. Flow (prot)	1605		1222		819			1602		820	1611	1352
Flt Permitted	0.95		1.00		0.98			1.00		0.32	1.00	1.00
Satd. Flow (perm)	1605		1222		819			1602		275	1611	1352
Peak-hour factor, PHF	0.91	0.96	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	426	0	205	16	0	16	0	518	16	16	513	200
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	426	0	205	0	32	0	0	534	0	16	513	200
Confl. Peds. (#/hr)									47	47		1
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	0%	21%	100%	0%	100%	0%	5%	100%	100%	8%	7%
Turn Type	Split		Perm	Split	NA			NA		pm+pt	NA	Perm
Protected Phases	4	4		8	8			2		1	6	
Permitted Phases			4							6		6
Actuated Green, G (s)	28.0		28.0		4.8			42.8		47.2	47.2	47.2
Effective Green, g (s)	28.0		28.0		4.8			42.8		47.2	47.2	47.2
Actuated g/C Ratio	0.28		0.28		0.05			0.43		0.47	0.47	0.47
Clearance Time (s)	4.0		4.0		4.0			12.0		2.0	12.0	12.0
Vehicle Extension (s)	3.0		3.0		3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	449		342		39			685		142	760	638
v/s Ratio Prot	c0.27				c0.04			c0.33		0.00	c0.32	
v/s Ratio Perm			0.17							0.05		0.15
v/c Ratio	0.95		0.60		0.82			0.78		0.11	0.68	0.31
Uniform Delay, d1	35.3		31.1		47.2			24.6		15.3	20.5	16.4
Progression Factor	1.00		1.00		1.00			1.08		0.76	0.89	0.87
Incremental Delay, d2	31.4		7.6		76.9			5.5		0.3	4.0	1.1
Delay (s)	66.7		38.7		124.1			32.2		11.9	22.1	15.3
Level of Service	E		D		F			C		B	C	B
Approach Delay (s)		57.6			124.1			32.2			20.0	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



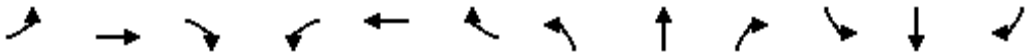
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	1087	24	78	630	77	0	368	131	0	294	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.98			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1604	4630		1573	4323			1406			1523	
Flt Permitted	0.25	1.00		0.14	1.00			1.00			1.00	
Satd. Flow (perm)	417	4630		227	4323			1406			1523	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	189	1195	26	86	692	85	0	404	144	0	323	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	189	1221	0	86	777	0	0	548	0	0	389	0
Confl. Peds. (#/hr)	5		32	32		5			27			19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	3%	2%	8%	5%	4%	4%	100%	7%	5%	7%	12%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			18
Turn Type	pm+pt	NA		pm+pt	NA			NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	45.6	37.0		39.2	33.6			44.4			44.4	
Effective Green, g (s)	45.6	37.0		39.2	33.6			44.4			44.4	
Actuated g/C Ratio	0.46	0.37		0.39	0.34			0.44			0.44	
Clearance Time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Vehicle Extension (s)	5.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	296	1713		164	1452			624			676	
v/s Ratio Prot	c0.06	c0.26		0.03	0.18			c0.39			0.26	
v/s Ratio Perm	0.23			0.18								
v/c Ratio	0.64	0.71		0.52	0.54			0.88			0.58	
Uniform Delay, d1	17.6	27.0		20.6	26.9			25.3			20.8	
Progression Factor	1.00	1.00		1.00	1.00			0.78			0.85	
Incremental Delay, d2	6.2	1.4		3.0	1.4			15.3			2.7	
Delay (s)	23.8	28.4		23.6	28.3			35.1			20.5	
Level of Service	C	C		C	C			D			C	
Approach Delay (s)		27.8			27.8			35.1			20.5	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



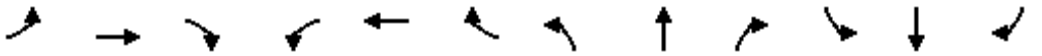
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	31	22	9	111	476	16	0	270	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	14	12	12	11	12	11	11	11	11	11	11
Total Lost time (s)					4.0	4.0	2.0	4.0			4.0	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frpb, ped/bikes					1.00	0.97	1.00	1.00			0.99	
Flpb, ped/bikes					0.98	1.00	0.99	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1600	1490	1289	1616			1500	
Flt Permitted					0.97	1.00	0.52	1.00			1.00	
Satd. Flow (perm)					1600	1490	707	1616			1500	
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)	0	0	0	34	24	10	122	523	18	0	297	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	58	10	122	541	0	0	363	0
Confl. Peds. (#/hr)			5	5		1	17		6			17
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	9%	0%	27%	7%	6%	3%	13%	8%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Actuated Green, G (s)					7.9	7.9	86.1	84.1			71.1	
Effective Green, g (s)					7.9	7.9	86.1	84.1			71.1	
Actuated g/C Ratio					0.08	0.08	0.86	0.84			0.71	
Clearance Time (s)					4.0	4.0	2.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					126	117	672	1359			1066	
v/s Ratio Prot							0.02	c0.33			0.24	
v/s Ratio Perm					0.04	0.01	0.14					
v/c Ratio					0.46	0.09	0.18	0.40			0.34	
Uniform Delay, d1					44.0	42.7	1.8	1.9			5.5	
Progression Factor					1.00	1.00	0.52	0.56			0.34	
Incremental Delay, d2					2.7	0.3	0.1	0.8			0.7	
Delay (s)					46.7	43.0	1.1	1.9			2.6	
Level of Service					D	D	A	A			A	
Approach Delay (s)		0.0			46.1			1.7			2.6	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.0%	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												
Volume (vph)	52	45	29	0	0	26	0	367	2	0	245	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99			0.98			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.94			0.86			1.00			1.00	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1706	1675			1279			1010			1343	
Flt Permitted	0.74	1.00			1.00			1.00			1.00	
Satd. Flow (perm)	1326	1675			1279			1010			1343	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.91	0.92	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	57	49	32	0	0	29	0	403	2	0	269	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	57	81	0	0	29	0	0	405	0	0	269	0
Confl. Peds. (#/hr)	1		3			1			3			3
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	19%	2%	12%	0%	14%	14%	0%
Parking (#/hr)								50			4	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	21.0	21.0			21.0			71.0			71.0	
Effective Green, g (s)	21.0	21.0			21.0			71.0			71.0	
Actuated g/C Ratio	0.21	0.21			0.21			0.71			0.71	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	278	351			268			717			953	
v/s Ratio Prot		c0.05			0.02			c0.40			0.20	
v/s Ratio Perm	0.04											
v/c Ratio	0.21	0.23			0.11			0.56			0.28	
Uniform Delay, d1	32.6	32.8			31.9			7.0			5.3	
Progression Factor	1.00	1.00			1.00			0.45			0.44	
Incremental Delay, d2	1.7	1.5			0.8			2.7			0.7	
Delay (s)	34.3	34.3			32.7			5.9			3.1	
Level of Service	C	C			C			A			A	
Approach Delay (s)		34.3			32.7			5.9			3.1	
Approach LOS		C			C			A			A	

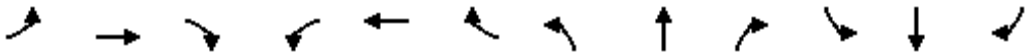
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	267	78	37	145	91	0	419	24	0	241	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97		1.00	0.95		1.00	0.95
Flpb, ped/bikes	0.99	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	0.99	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1588	1514	1216	1588	1370	1108		1139	991		1099	1007
Flt Permitted	0.59	1.00	1.00	0.42	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	989	1514	1216	707	1370	1108		1139	991		1099	1007
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	62	293	86	41	159	100	0	460	26	0	265	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	62	293	86	41	169	90	0	460	26	0	265	7
Confl. Peds. (#/hr)	3		4	4		3			8			10
Confl. Bikes (#/hr)						1			2			3
Heavy Vehicles (%)	0%	11%	14%	0%	15%	19%	14%	13%	4%	17%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								32	32		36	36
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0	31.0		60.0	60.0		60.0	60.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0	31.0		60.0	60.0		60.0	60.0
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31		0.60	0.60		0.60	0.60
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	306	469	376	219	424	343		683	594		659	604
v/s Ratio Prot		c0.19			0.12			c0.40			0.24	
v/s Ratio Perm	0.06		0.07	0.06		0.08			0.03			0.01
v/c Ratio	0.20	0.62	0.23	0.19	0.40	0.26		0.67	0.04		0.40	0.01
Uniform Delay, d1	25.4	29.5	25.6	25.3	27.2	25.9		13.4	8.2		10.5	8.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.53	0.64		0.69	0.74
Incremental Delay, d2	1.5	6.2	1.4	1.9	2.8	1.9		4.4	0.1		1.8	0.0
Delay (s)	26.9	35.7	27.0	27.2	29.9	27.8		11.5	5.4		9.1	6.0
Level of Service	C	D	C	C	C	C		B	A		A	A
Approach Delay (s)		32.8			28.9			11.2			9.0	
Approach LOS		C			C			B			A	

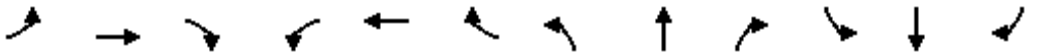
Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



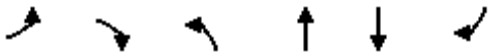
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	34	34	10	21	21	0	553	14	0	426	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
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			0.95			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1550			1290			1419			1407	
Flt Permitted		0.88			0.95			1.00			1.00	
Satd. Flow (perm)		1395			1236			1419			1407	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	37	37	37	11	23	23	0	608	15	0	468	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	57	0	0	623	0	0	486	0
Confl. Peds. (#/hr)	10		2	2		10			2			7
Heavy Vehicles (%)	0%	21%	0%	20%	0%	59%	5%	10%	7%	19%	11%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.3			14.3			76.7			76.7	
Effective Green, g (s)		14.3			14.3			76.7			76.7	
Actuated g/C Ratio		0.14			0.14			0.77			0.77	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		199			176			1088			1079	
v/s Ratio Prot								c0.44			0.35	
v/s Ratio Perm		c0.08			0.05							
v/c Ratio		0.56			0.32			0.57			0.45	
Uniform Delay, d1		39.9			38.5			4.8			4.1	
Progression Factor		1.00			1.00			0.98			0.59	
Incremental Delay, d2		5.7			2.2			1.9			1.3	
Delay (s)		45.6			40.7			6.6			3.8	
Level of Service		D			D			A			A	
Approach Delay (s)		45.6			40.7			6.6			3.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	49.5%	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												
Volume (vph)	28	329	111	108	369	164	0	482	67	0	367	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98		1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1450	2926	1345	1333	2875	992		1294	1134		1253	1106
Flt Permitted	0.51	1.00	1.00	0.38	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	784	2926	1345	527	2875	992		1294	1134		1253	1106
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	31	362	122	119	405	180	0	530	74	0	403	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	31	362	122	119	405	180	0	530	74	0	403	20
Confl. Peds. (#/hr)												2
Confl. Bikes (#/hr)						1						3
Heavy Vehicles (%)	14%	13%	10%	24%	15%	46%	1%	21%	16%	16%	25%	17%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	29.8	26.2	26.2	39.2	32.6	32.6		54.8	54.8		54.8	54.8
Effective Green, g (s)	29.8	26.2	26.2	39.2	32.6	32.6		54.8	54.8		54.8	54.8
Actuated g/C Ratio	0.30	0.26	0.26	0.39	0.33	0.33		0.55	0.55		0.55	0.55
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	257	766	352	287	937	323		709	621		686	606
v/s Ratio Prot	0.00	0.12		c0.04	0.14			c0.41			0.32	
v/s Ratio Perm	0.03		0.09	0.12		c0.18			0.07			0.02
v/c Ratio	0.12	0.47	0.35	0.41	0.43	0.56		0.75	0.12		0.59	0.03
Uniform Delay, d1	25.2	31.1	30.0	20.7	26.4	27.8		17.3	10.9		15.1	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.73	0.70		0.91	0.97
Incremental Delay, d2	0.2	2.1	2.7	1.0	1.5	6.8		6.5	0.4		1.2	0.0
Delay (s)	25.4	33.2	32.6	21.7	27.9	34.5		19.1	8.0		14.9	10.1
Level of Service	C	C	C	C	C	C		B	A		B	B
Approach Delay (s)		32.6			28.5			17.8			14.7	
Approach LOS		C			C			B			B	

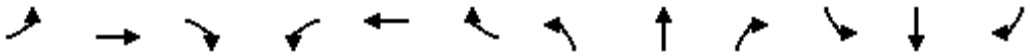
Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	80	33	0	520	308	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	11	11	11	11
Total Lost time (s)	5.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.99			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.96			1.00	0.98	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1529			1198	1563	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1529			1198	1563	
Peak-hour factor, PHF	0.91	0.91	0.96	0.91	0.91	0.91
Adj. Flow (vph)	88	36	0	571	338	44
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	124	0	0	571	382	0
Confl. Peds. (#/hr)	2	1				4
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	2%	12%	0%	6%	8%	18%
Parking (#/hr)				34		
Turn Type	NA			NA	NA	
Protected Phases	4			2 9	6	
Permitted Phases						
Actuated Green, G (s)	14.5			75.5	68.5	
Effective Green, g (s)	14.5			75.5	68.5	
Actuated g/C Ratio	0.14			0.76	0.68	
Clearance Time (s)	5.0				3.0	
Vehicle Extension (s)	8.0				3.0	
Lane Grp Cap (vph)	221			904	1070	
v/s Ratio Prot	c0.08			c0.48	0.24	
v/s Ratio Perm						
v/c Ratio	0.56			0.63	0.36	
Uniform Delay, d1	39.8			5.7	6.6	
Progression Factor	1.00			0.08	0.94	
Incremental Delay, d2	9.2			1.1	0.9	
Delay (s)	49.0			1.6	7.0	
Level of Service	D			A	A	
Approach Delay (s)	49.0			1.6	7.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

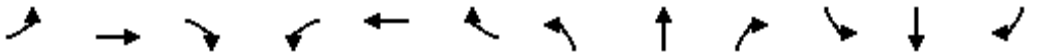
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	2	5	2	3	2	0	589	0	0	497	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	8	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.96			1.00			0.99	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1578			1493			1477			1401	
Flt Permitted		0.88			0.95			1.00			1.00	
Satd. Flow (perm)		1436			1441			1477			1401	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	9	2	5	2	3	2	0	647	0	0	546	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	16	0	0	7	0	0	647	0	0	575	0
Confl. Peds. (#/hr)									5			13
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	50%	0%	0%	0%	50%	2%	6%	0%	67%	10%	23%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6 13	
Permitted Phases	4			8								
Actuated Green, G (s)		14.5			14.5			68.5			75.5	
Effective Green, g (s)		14.5			14.5			68.5			75.5	
Actuated g/C Ratio		0.14			0.14			0.68			0.76	
Clearance Time (s)		5.0			5.0			3.0				
Vehicle Extension (s)		8.0			8.0			3.0				
Lane Grp Cap (vph)		208			208			1011			1057	
v/s Ratio Prot								c0.44			c0.41	
v/s Ratio Perm		c0.01			0.00							
v/c Ratio		0.08			0.03			0.64			0.54	
Uniform Delay, d1		37.0			36.7			8.8			5.1	
Progression Factor		1.00			1.00			0.75			0.67	
Incremental Delay, d2		0.7			0.3			2.5			0.6	
Delay (s)		37.6			37.0			9.2			4.0	
Level of Service		D			D			A			A	
Approach Delay (s)		37.6			37.0			9.2			4.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.6%	ICU Level of Service	A
Analysis Period (min)	15		

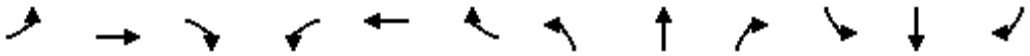
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	248	56	24	115	66	0	459	42	0	277	73
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98		1.00	0.98		1.00	0.96
Flpb, ped/bikes	1.00	1.00		0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1503	1423		1457	1527	1247		1272	986		1176	886
Flt Permitted	0.68	1.00		0.40	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	1070	1423		616	1527	1247		1272	986		1176	886
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	116	273	62	26	126	73	0	504	46	0	304	80
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	116	335	0	26	126	73	0	504	46	0	304	80
Confl. Peds. (#/hr)	1		14	14		1			1			8
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	6%	16%	4%	8%	10%	12%	3%	4%	10%	22%	8%	15%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								28	28		34	34
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	35.0	35.0		35.0	35.0	35.0		56.0	56.0		56.0	56.0
Effective Green, g (s)	35.0	35.0		35.0	35.0	35.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio	0.35	0.35		0.35	0.35	0.35		0.56	0.56		0.56	0.56
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	374	498		215	534	436		712	552		658	496
v/s Ratio Prot		c0.24			0.08			c0.40			0.26	
v/s Ratio Perm	0.11			0.04		0.06			0.05			0.09
v/c Ratio	0.31	0.67		0.12	0.24	0.17		0.71	0.08		0.46	0.16
Uniform Delay, d1	23.7	27.6		22.1	23.0	22.4		16.0	10.2		13.1	10.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.60	0.78		0.49	0.54
Incremental Delay, d2	2.1	7.1		1.1	1.0	0.8		4.7	0.2		2.0	0.6
Delay (s)	25.8	34.7		23.2	24.1	23.3		14.4	8.2		8.4	6.4
Level of Service	C	C		C	C	C		B	A		A	A
Approach Delay (s)		32.4			23.7			13.9			8.0	
Approach LOS		C			C			B			A	

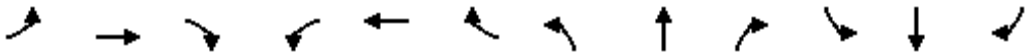
Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



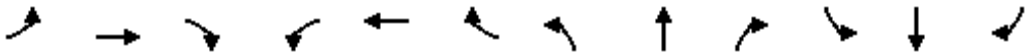
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	38	15	20	13	9	0	582	43	0	400	39
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.97			1.00			1.00			1.00	
Frt		0.98			0.97			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1616			1457			1347			1074	
Flt Permitted		0.87			0.82			1.00			1.00	
Satd. Flow (perm)		1437			1221			1347			1074	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	35	42	16	22	14	10	0	640	47	0	440	43
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	93	0	0	46	0	0	687	0	0	483	0
Confl. Peds. (#/hr)	16		2	2		16			2			9
Heavy Vehicles (%)	0%	5%	7%	10%	0%	44%	14%	5%	2%	10%	10%	10%
Parking (#/hr)								16			42	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.6			10.6			80.4			80.4	
Effective Green, g (s)		10.6			10.6			80.4			80.4	
Actuated g/C Ratio		0.11			0.11			0.80			0.80	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		152			129			1082			863	
v/s Ratio Prot								c0.51			0.45	
v/s Ratio Perm		c0.06			0.04							
v/c Ratio		0.61			0.36			0.63			0.56	
Uniform Delay, d1		42.7			41.5			3.9			3.5	
Progression Factor		1.00			1.00			0.24			0.67	
Incremental Delay, d2		10.1			3.5			2.3			2.5	
Delay (s)		52.8			45.0			3.3			4.8	
Level of Service		D			D			A			A	
Approach Delay (s)		52.8			45.0			3.3			4.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	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												
Volume (vph)	36	20	15	16	10	22	0	489	23	0	275	43
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.99	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.97			0.94			0.99			0.98	
Flt Protected		0.97			0.98			1.00			1.00	
Satd. Flow (prot)		1642			1548			1141			1085	
Flt Permitted		0.85			0.91			1.00			1.00	
Satd. Flow (perm)		1423			1429			1141			1085	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	40	22	16	18	11	24	0	537	25	0	302	47
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	0	0	53	0	0	562	0	0	349	0
Confl. Peds. (#/hr)	15		10	10		15			7			9
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	0%	0%	7%	12%	0%	0%	10%	6%	4%	0%	11%	0%
Parking (#/hr)								40			40	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			68.0			68.0	
Effective Green, g (s)		23.0			23.0			68.0			68.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		327			328			775			737	
v/s Ratio Prot								c0.49			0.32	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.24			0.16			0.73			0.47	
Uniform Delay, d1		31.4			30.8			10.1			7.6	
Progression Factor		1.00			1.00			0.57			1.01	
Incremental Delay, d2		1.7			1.1			4.7			1.9	
Delay (s)		33.1			31.8			10.5			9.5	
Level of Service		C			C			B			A	
Approach Delay (s)		33.1			31.8			10.5			9.5	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.3%	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												
Volume (vph)	32	52	10	4	14	38	0	473	27	0	251	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.96			0.99			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.99			0.91			0.99			0.98	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1703			1516			1152			995	
Flt Permitted		0.89			0.99			1.00			1.00	
Satd. Flow (perm)		1549			1501			1152			995	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	35	57	11	4	15	42	0	520	30	0	276	45
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	103	0	0	61	0	0	550	0	0	321	0
Confl. Peds. (#/hr)	13		5	5		13			18			11
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	0%	0%	10%	0%	0%	5%	0%	6%	4%	2%	13%	7%
Parking (#/hr)								38			48	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			72.0			72.0	
Effective Green, g (s)		20.0			20.0			72.0			72.0	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		309			300			829			716	
v/s Ratio Prot								c0.48			0.32	
v/s Ratio Perm		c0.07			0.04							
v/c Ratio		0.33			0.20			0.66			0.45	
Uniform Delay, d1		34.3			33.4			7.5			5.8	
Progression Factor		1.00			1.00			0.63			1.05	
Incremental Delay, d2		2.9			1.5			3.4			1.8	
Delay (s)		37.2			34.9			8.1			7.9	
Level of Service		D			C			A			A	
Approach Delay (s)		37.2			34.9			8.1			7.9	
Approach LOS		D			C			A			A	

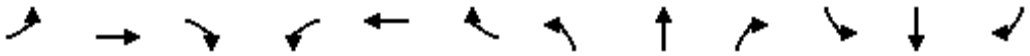
Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations												
Volume (vph)	100	293	40	60	256	48	7	361	0	72	192	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	10	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00	0.93		1.00	0.92
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.97			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1425	2701		1527	2712			1071	1328		1398	1126
Flt Permitted	0.45	1.00		0.51	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	670	2701		812	2712			1071	1328		1398	1126
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)	110	322	44	66	281	53	8	397	0	79	211	65
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	110	366	0	66	342	0	0	397	79	0	211	65
Confl. Peds. (#/hr)			27	27		51				33		44
Heavy Vehicles (%)	12%	16%	8%	3%	12%	15%	0%	4%	0%	4%	12%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								52			0	0
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	35.7	28.8		31.5	26.7			54.4	54.4		54.4	54.4
Effective Green, g (s)	35.7	28.8		31.5	26.7			54.4	54.4		54.4	54.4
Actuated g/C Ratio	0.36	0.29		0.32	0.27			0.54	0.54		0.54	0.54
Clearance Time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	291	777		290	724			582	722		760	612
v/s Ratio Prot	c0.03	c0.14		0.01	0.13			c0.37			0.15	
v/s Ratio Perm	0.11			0.06					0.06			0.06
v/c Ratio	0.38	0.47		0.23	0.47			0.68	0.11		0.28	0.11
Uniform Delay, d1	22.6	29.3		24.5	30.7			16.5	11.1		12.2	11.0
Progression Factor	1.00	1.00		1.00	1.00			0.41	0.29		0.60	0.67
Incremental Delay, d2	0.8	2.0		0.4	2.2			4.0	0.2		0.8	0.3
Delay (s)	23.4	31.4		24.9	32.9			10.8	3.4		8.2	7.7
Level of Service	C	C		C	C			B	A		A	A
Approach Delay (s)		29.5			31.7			9.6			8.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	20.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

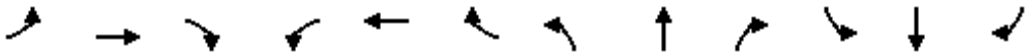
c Critical Lane Group

Movement	SWR2
Lane Configurations	
Volume (vph)	3
Ideal Flow (vphpl)	1800
Lane Width	12
Total Lost time (s)	5.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1557
Flt Permitted	1.00
Satd. Flow (perm)	1557
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	3
RTOR Reduction (vph)	0
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	26.7
Effective Green, g (s)	26.7
Actuated g/C Ratio	0.27
Clearance Time (s)	5.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	415
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	26.9
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	26.9
Level of Service	C
Approach Delay (s)	
Approach LOS	
Intersection Summary	



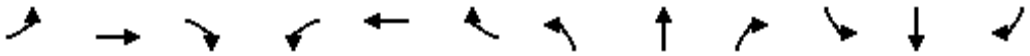
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	16	55	16	0	582	0	0	250	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.98	
Flpb, ped/bikes					0.98			1.00			1.00	
Frt					0.97			1.00			0.98	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1594			1205			1014	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1594			1205			1014	
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)	0	0	0	18	60	18	0	640	0	0	275	57
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	96	0	0	640	0	0	332	0
Confl. Peds. (#/hr)			56	56		33			2			19
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	0%	4%	12%	9%	4%	0%	0%	7%	8%
Parking (#/hr)								36			50	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			68.0			68.0	
Effective Green, g (s)					23.0			68.0			68.0	
Actuated g/C Ratio					0.23			0.68			0.68	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					366			819			689	
v/s Ratio Prot								c0.53			0.33	
v/s Ratio Perm					0.06							
v/c Ratio					0.26			0.78			0.48	
Uniform Delay, d1					31.5			10.9			7.6	
Progression Factor					1.00			0.76			0.65	
Incremental Delay, d2					1.7			6.5			2.3	
Delay (s)					33.3			14.8			7.3	
Level of Service					C			B			A	
Approach Delay (s)		0.0			33.3			14.8			7.3	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



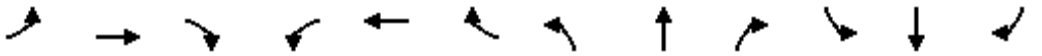
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	40	30	16	19	10	0	410	37	0	197	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.99			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			0.97			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1697			1634			1112			1029	
Flt Permitted		0.86			0.89			1.00			1.00	
Satd. Flow (perm)		1496			1481			1112			1029	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	53	44	33	18	21	11	0	451	41	0	216	23
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	130	0	0	50	0	0	492	0	0	239	0
Confl. Peds. (#/hr)	5					5			14			4
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	12%	0%	0%	0%	5%	0%	0%	9%	0%
Parking (#/hr)								44			50	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			67.0			67.0	
Effective Green, g (s)		24.0			24.0			67.0			67.0	
Actuated g/C Ratio		0.24			0.24			0.67			0.67	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		359			355			745			689	
v/s Ratio Prot								c0.44			0.23	
v/s Ratio Perm		c0.09			0.03							
v/c Ratio		0.36			0.14			0.66			0.35	
Uniform Delay, d1		31.6			29.9			9.8			7.1	
Progression Factor		1.00			1.00			0.59			0.34	
Incremental Delay, d2		2.8			0.8			3.6			1.2	
Delay (s)		34.4			30.7			9.3			3.7	
Level of Service		C			C			A			A	
Approach Delay (s)		34.4			30.7			9.3			3.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



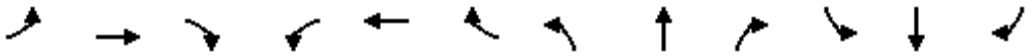
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	34	8	16	18	26	0	450	15	0	211	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.97			1.00			0.99	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.98			0.94			1.00			0.98	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1697			1607			1112			1387	
Flt Permitted		0.88			0.93			1.00			1.00	
Satd. Flow (perm)		1529			1507			1112			1387	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	29	37	9	18	20	29	0	495	16	0	232	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	75	0	0	67	0	0	511	0	0	262	0
Confl. Peds. (#/hr)	19		26	26		19			8			8
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	12%	0%
Parking (#/hr)								44			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			68.0			68.0	
Effective Green, g (s)		23.0			23.0			68.0			68.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		351			346			756			943	
v/s Ratio Prot								c0.46			0.19	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.21			0.19			0.68			0.28	
Uniform Delay, d1		31.2			31.0			9.5			6.3	
Progression Factor		1.00			1.00			0.42			0.55	
Incremental Delay, d2		1.4			1.2			4.2			0.7	
Delay (s)		32.6			32.3			8.1			4.2	
Level of Service		C			C			A			A	
Approach Delay (s)		32.6			32.3			8.1			4.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.7%	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												
Volume (vph)	112	318	29	46	196	55	0	349	40	0	168	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.96		1.00	0.94		1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1519	1556	1259	1510	1585	1287		1154	926		983	867
Flt Permitted	0.56	1.00	1.00	0.40	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	901	1556	1259	636	1585	1287		1154	926		983	867
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	123	349	32	51	215	60	0	384	44	0	185	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	123	349	32	51	215	60	0	384	44	0	185	38
Confl. Peds. (#/hr)	5		12	12		5			14			4
Heavy Vehicles (%)	4%	8%	7%	4%	6%	7%	3%	4%	2%	8%	15%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								42	42		50	50
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	37.0	37.0	37.0	37.0	37.0	37.0		54.0	54.0		54.0	54.0
Effective Green, g (s)	37.0	37.0	37.0	37.0	37.0	37.0		54.0	54.0		54.0	54.0
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37		0.54	0.54		0.54	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	333	575	465	235	586	476		623	500		530	468
v/s Ratio Prot		c0.22			0.14			c0.33			0.19	
v/s Ratio Perm	0.14		0.03	0.08		0.05			0.05			0.04
v/c Ratio	0.37	0.61	0.07	0.22	0.37	0.13		0.62	0.09		0.35	0.08
Uniform Delay, d1	23.0	25.6	20.4	21.6	23.0	20.8		15.9	11.1		13.0	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.17	0.27		0.72	0.70
Incremental Delay, d2	3.1	4.7	0.3	2.1	1.8	0.5		3.7	0.3		1.8	0.3
Delay (s)	26.1	30.3	20.6	23.7	24.7	21.4		6.4	3.3		11.1	8.1
Level of Service	C	C	C	C	C	C		A	A		B	A
Approach Delay (s)		28.7			23.9			6.1			10.6	
Approach LOS		C			C			A			B	

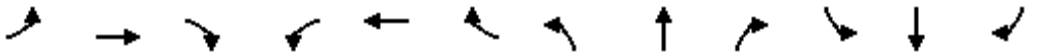
Intersection Summary			
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	8	9	13	0	451	0	0	196	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1590			1205			1021	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1590			1205			1021	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	0	0	9	10	14	0	496	0	0	215	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	33	0	0	496	0	0	233	0
Confl. Peds. (#/hr)			13	13		2			13			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	8%	0%	4%	0%	20%	11%	12%
Parking (#/hr)								36			48	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			68.0			68.0	
Effective Green, g (s)					23.0			68.0			68.0	
Actuated g/C Ratio					0.23			0.68			0.68	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					365			819			694	
v/s Ratio Prot								c0.41			0.23	
v/s Ratio Perm					0.02							
v/c Ratio					0.09			0.61			0.34	
Uniform Delay, d1					30.3			8.7			6.6	
Progression Factor					1.00			0.23			0.71	
Incremental Delay, d2					0.5			2.7			1.3	
Delay (s)					30.8			4.8			6.0	
Level of Service					C			A			A	
Approach Delay (s)		0.0			30.8			4.8			6.0	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

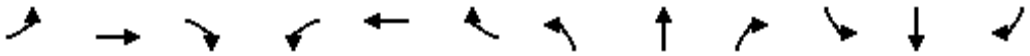
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	138	738	29	0	427	0	0	152	70
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	9	10	10	11	11	11	11	11	11
Total Lost time (s)				5.0	5.0	5.0		3.0			3.0	3.0
Lane Util. Factor				1.00	0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes				1.00	1.00	0.89		1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00	1.00		1.00			1.00	1.00
Frt				1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				1524	3069	1266		1477			1084	970
Flt Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				1524	3069	1266		1477			1084	970
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)	0	0	0	152	811	32	0	469	0	0	167	77
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	152	811	32	0	469	0	0	167	77
Confl. Peds. (#/hr)						57			12			14
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	1%	4%	0%	4%	6%	0%	0%	14%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								0			38	38
Turn Type				Perm	NA	Perm		NA			NA	Perm
Protected Phases					8			2 5			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				40.0	40.0	40.0		46.0			43.0	43.0
Effective Green, g (s)				40.0	40.0	40.0		46.0			43.0	43.0
Actuated g/C Ratio				0.40	0.40	0.40		0.46			0.43	0.43
Clearance Time (s)				5.0	5.0	5.0					3.0	3.0
Lane Grp Cap (vph)				609	1227	506		679			466	417
v/s Ratio Prot					c0.26			c0.32			0.15	
v/s Ratio Perm				0.10		0.03						0.08
v/c Ratio				0.25	0.66	0.06		0.69			0.36	0.18
Uniform Delay, d1				20.0	24.5	18.5		21.4			19.2	17.6
Progression Factor				1.00	1.00	1.00		0.38			1.09	1.11
Incremental Delay, d2				1.0	2.8	0.2		4.2			2.1	1.0
Delay (s)				21.0	27.3	18.7		12.3			23.0	20.5
Level of Service				C	C	B		B			C	C
Approach Delay (s)		0.0			26.0			12.3			22.2	
Approach LOS		A			C			B			C	

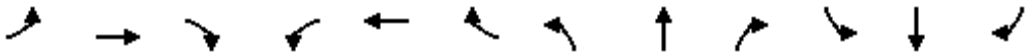
Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



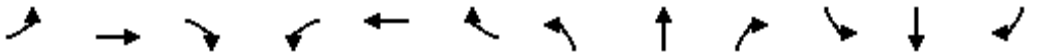
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	936	63	0	0	0	0	376	164	0	254	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					3.0	3.0		5.0	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00	0.90					1.00	0.98		1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00		1.00	
Frt	1.00	1.00	0.85					1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1477	3011	1191					1248	1077		1437	
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1477	3011	1191					1248	1077		1437	
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	84	1029	69	0	0	0	0	413	180	0	279	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	1029	69	0	0	0	0	413	180	0	279	0
Confl. Peds. (#/hr)	1		48			1			10			6
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	4%	6%	8%	0%	0%	0%	0%	6%	2%	4%	9%	0%
Parking (#/hr)								28	28		0	
Turn Type	Perm	NA	Perm					NA	Perm		NA	
Protected Phases		4						2			1 6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	40.0	40.0	40.0					42.0	42.0		48.0	
Effective Green, g (s)	40.0	40.0	40.0					42.0	42.0		48.0	
Actuated g/C Ratio	0.40	0.40	0.40					0.42	0.42		0.48	
Clearance Time (s)	5.0	5.0	5.0					3.0	3.0			
Lane Grp Cap (vph)	590	1204	476					524	452		689	
v/s Ratio Prot		c0.34						c0.33			c0.19	
v/s Ratio Perm	0.06		0.06						0.17			
v/c Ratio	0.14	0.85	0.14					0.79	0.40		0.40	
Uniform Delay, d1	19.1	27.3	19.1					25.1	20.2		16.8	
Progression Factor	1.00	1.00	1.00					0.92	0.99		1.21	
Incremental Delay, d2	0.5	7.8	0.6					7.5	1.7		1.7	
Delay (s)	19.6	35.2	19.7					30.6	21.8		22.0	
Level of Service	B	D	B					C	C		C	
Approach Delay (s)		33.2			0.0			27.9			22.0	
Approach LOS		C			A			C			C	

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



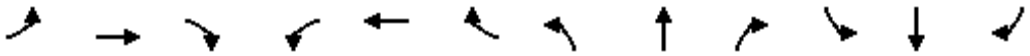
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	10	34	0	0	0	0	592	8	0	261	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.97						1.00			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.93						1.00			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1544						1167			1063	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1544						1167			1063	
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	24	11	37	0	0	0	0	651	9	0	287	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	72	0	0	0	0	0	660	0	0	287	0
Confl. Peds. (#/hr)	7		17			7			10			23
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	6%	0%	0%	0%	0%	4%	12%	0%	8%	0%
Parking (#/hr)								40			48	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						68.0			68.0	
Effective Green, g (s)		23.0						68.0			68.0	
Actuated g/C Ratio		0.23						0.68			0.68	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		355						793			722	
v/s Ratio Prot								c0.57			0.27	
v/s Ratio Perm		0.05										
v/c Ratio		0.20						0.83			0.40	
Uniform Delay, d1		31.1						11.8			7.0	
Progression Factor		1.00						0.37			0.92	
Incremental Delay, d2		1.3						7.4			1.5	
Delay (s)		32.4						11.8			8.0	
Level of Service		C						B			A	
Approach Delay (s)		32.4			0.0			11.8			8.0	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.1%	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												
Volume (vph)	76	302	39	51	273	37	0	505	33	0	245	33
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.79	1.00	1.00	0.96		1.00	0.98		1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1432	1527	1070	1493	1615	1266		1288	1099		1437	1089
Flt Permitted	0.41	1.00	1.00	0.36	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	617	1527	1070	573	1615	1266		1288	1099		1437	1089
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	84	332	43	56	300	41	0	555	36	0	269	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	332	43	56	300	41	0	555	36	0	269	36
Confl. Peds. (#/hr)	7		63	63		7			1			25
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	11%	10%	5%	4%	4%	8%	2%	4%	0%	7%	9%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.6	30.6	30.6	34.6	30.6	30.6		53.4	53.4		53.4	53.4
Effective Green, g (s)	34.6	30.6	30.6	34.6	30.6	30.6		53.4	53.4		53.4	53.4
Actuated g/C Ratio	0.35	0.31	0.31	0.35	0.31	0.31		0.53	0.53		0.53	0.53
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	246	467	327	235	494	387		687	586		767	581
v/s Ratio Prot	c0.01	c0.22		0.01	0.19			c0.43			0.19	
v/s Ratio Perm	0.10		0.04	0.07		0.03			0.03			0.03
v/c Ratio	0.34	0.71	0.13	0.24	0.61	0.11		0.81	0.06		0.35	0.06
Uniform Delay, d1	23.3	30.8	25.1	22.8	29.6	24.9		19.1	11.2		13.4	11.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.65	0.92		0.63	0.68
Incremental Delay, d2	0.8	8.9	0.8	0.5	5.5	0.6		6.1	0.1		1.2	0.2
Delay (s)	24.1	39.7	25.9	23.4	35.0	25.4		18.4	10.4		9.6	7.9
Level of Service	C	D	C	C	D	C		B	B		A	A
Approach Delay (s)		35.5			32.4			18.0			9.4	
Approach LOS		D			C			B			A	

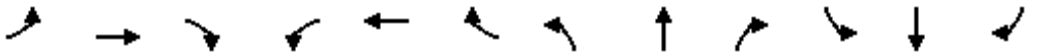
Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	32	85	0	0	0	0	572	45	0	309	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.92						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1749						1232			1015	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1749						1232			1015	
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	35	35	93	0	0	0	0	629	49	0	340	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	163	0	0	0	0	0	678	0	0	340	0
Confl. Peds. (#/hr)	6		7			6			16			24
Heavy Vehicles (%)	19%	0%	0%	0%	0%	0%	0%	3%	2%	14%	8%	0%
Parking (#/hr)								32			54	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						68.0			68.0	
Effective Green, g (s)		23.0						68.0			68.0	
Actuated g/C Ratio		0.23						0.68			0.68	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		402						837			690	
v/s Ratio Prot								c0.55			0.33	
v/s Ratio Perm		0.09										
v/c Ratio		0.41						0.81			0.49	
Uniform Delay, d1		32.7						11.4			7.7	
Progression Factor		1.00						1.00			0.93	
Incremental Delay, d2		3.0						8.4			2.4	
Delay (s)		35.7						19.8			9.6	
Level of Service		D						B			A	
Approach Delay (s)		35.7			0.0			19.8			9.6	
Approach LOS		D			A			B			A	

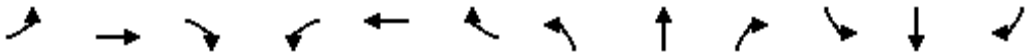
Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



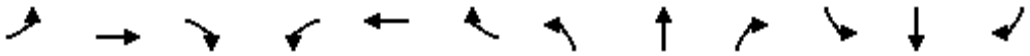
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	493	83	71	462	44	0	475	60	0	311	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	10	10	10	10	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
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	0.90	1.00	1.00			1.00	0.90		1.00	0.91
Flpb, ped/bikes	0.99	1.00	1.00	0.97	1.00			1.00	1.00		1.00	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			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1488	1527	1178	1457	1580			1673	1145		1626	1208
Flt Permitted	0.31	1.00	1.00	0.32	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	479	1527	1178	488	1580			1673	1145		1626	1208
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	65	542	91	78	508	48	0	522	66	0	342	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	65	542	91	78	556	0	0	522	66	0	342	49
Confl. Peds. (#/hr)	19		76	76		19			42			37
Heavy Vehicles (%)	14%	10%	9%	6%	5%	0%	5%	4%	3%	2%	7%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0			
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0			27.0	27.0		27.0	27.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0			27.0	27.0		27.0	27.0
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48			0.42	0.42		0.42	0.42
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	228	728	561	232	753			694	475		675	501
v/s Ratio Prot		c0.35			0.35			c0.31			0.21	
v/s Ratio Perm	0.14		0.08	0.16					0.06			0.04
v/c Ratio	0.29	0.74	0.16	0.34	0.74			0.75	0.14		0.51	0.10
Uniform Delay, d1	10.3	13.8	9.6	10.6	13.7			16.2	11.8		14.1	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.78	0.69		1.00	1.00
Incremental Delay, d2	3.1	6.8	0.6	3.9	6.4			6.1	0.5		2.7	0.4
Delay (s)	13.4	20.6	10.3	14.5	20.1			18.8	8.6		16.8	12.0
Level of Service	B	C	B	B	C			B	A		B	B
Approach Delay (s)		18.6			19.4			17.7			16.2	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	70.1%	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												
Volume (vph)	0	0	0	36	14	56	0	612	0	0	246	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1710			1422			1141	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1710			1422			1141	
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	40	15	62	0	673	0	0	270	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	117	0	0	673	0	0	297	0
Confl. Peds. (#/hr)			22	22		6			27			26
Heavy Vehicles (%)	0%	0%	0%	6%	0%	2%	0%	4%	0%	0%	8%	4%
Parking (#/hr)								10			36	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					8.0			48.0			48.0	
Effective Green, g (s)					8.0			48.0			48.0	
Actuated g/C Ratio					0.12			0.74			0.74	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					5.0			3.0			3.0	
Lane Grp Cap (vph)					210			1050			842	
v/s Ratio Prot								c0.47			0.26	
v/s Ratio Perm					0.07							
v/c Ratio					0.56			0.64			0.35	
Uniform Delay, d1					26.8			4.2			3.0	
Progression Factor					1.00			1.00			0.27	
Incremental Delay, d2					5.4			3.0			1.1	
Delay (s)					32.2			7.2			1.9	
Level of Service					C			A			A	
Approach Delay (s)		0.0			32.2			7.2			1.9	
Approach LOS		A			C			A			A	

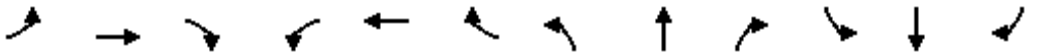
Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	360	40	66	260	63	0	479	25	0	247	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	9	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	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	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.96		1.00			0.99	
Flpb, ped/bikes	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	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1532	1663	1373	1490	1631	1349		1223			1082	
Flt Permitted	0.47	1.00	1.00	0.33	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	751	1663	1373	511	1631	1349		1223			1082	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	103	396	44	73	286	69	0	526	27	0	271	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	103	396	44	73	286	69	0	553	0	0	298	0
Confl. Peds. (#/hr)	11		12	12		11			20			18
Heavy Vehicles (%)	0%	1%	0%	3%	3%	2%	0%	0%	0%	10%	7%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		44	44
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	34.6	30.6	30.6	34.6	30.6	30.6		42.4			42.4	
Effective Green, g (s)	34.6	30.6	30.6	34.6	30.6	30.6		42.4			42.4	
Actuated g/C Ratio	0.38	0.34	0.34	0.38	0.34	0.34		0.47			0.47	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	323	565	466	239	554	458		576			509	
v/s Ratio Prot	c0.01	c0.24		0.01	0.18			c0.45			0.28	
v/s Ratio Perm	0.11		0.03	0.10		0.05						
v/c Ratio	0.32	0.70	0.09	0.31	0.52	0.15		0.96			0.59	
Uniform Delay, d1	18.5	25.7	20.3	18.8	23.8	20.7		23.0			17.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.77			1.00	
Incremental Delay, d2	0.6	7.1	0.4	0.7	3.4	0.7		23.4			4.9	
Delay (s)	19.1	32.8	20.7	19.5	27.2	21.4		41.1			22.2	
Level of Service	B	C	C	B	C	C		D			C	
Approach Delay (s)		29.2			24.9			41.1			22.2	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

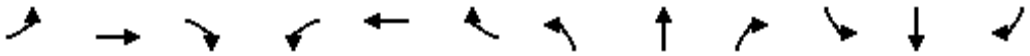
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	357	49	44	197	30	0	439	41	0	275	51
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			1.00	0.89		1.00	0.91		1.00	0.90
Flpb, ped/bikes		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Frt		0.98			1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3032			1595	1283		1138	1324		1018	1252
Flt Permitted		0.78			0.82	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		2374			1312	1283		1138	1324		1018	1252
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	84	392	54	48	216	33	0	482	45	0	302	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	530	0	0	264	33	0	482	45	0	302	56
Confl. Peds. (#/hr)	47		48	48		47			48			32
Heavy Vehicles (%)	0%	6%	0%	0%	9%	3%	6%	4%	2%	4%	6%	6%
Parking (#/hr)								44			56	
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		28.0			28.0	28.0		53.0	53.0		53.0	53.0
Effective Green, g (s)		28.0			28.0	28.0		53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.31			0.31	0.31		0.59	0.59		0.59	0.59
Clearance Time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		738			408	399		670	779		599	737
v/s Ratio Prot								c0.42			0.30	
v/s Ratio Perm		c0.22			0.20	0.03			0.03			0.04
v/c Ratio		0.72			0.65	0.08		0.72	0.06		0.50	0.08
Uniform Delay, d1		27.5			26.7	21.9		13.2	7.9		10.8	8.0
Progression Factor		1.00			1.00	1.00		0.67	0.96		0.58	0.41
Incremental Delay, d2		5.9			7.7	0.4		4.8	0.1		2.8	0.2
Delay (s)		33.4			34.5	22.3		13.6	7.7		9.1	3.4
Level of Service		C			C	C		B	A		A	A
Approach Delay (s)		33.4			33.1			13.1			8.2	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		

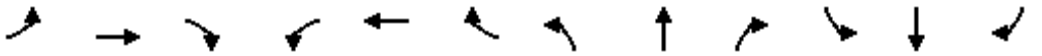
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	326	32	40	322	65	0	526	13	0	263	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.94		1.00			1.00	
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1586	1647	1316	1512	1615	1315		1413			1468	
Flt Permitted	0.34	1.00	1.00	0.37	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	568	1647	1316	590	1615	1315		1413			1468	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	80	358	35	44	354	71	0	578	14	0	289	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	80	358	35	44	354	71	0	592	0	0	319	0
Confl. Peds. (#/hr)	24		18	18		24			7			8
Heavy Vehicles (%)	0%	2%	3%	5%	4%	2%	8%	4%	15%	7%	5%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	33.2	29.2	29.2	31.2	28.2	28.2		45.8			45.8	
Effective Green, g (s)	33.2	29.2	29.2	31.2	28.2	28.2		45.8			45.8	
Actuated g/C Ratio	0.37	0.32	0.32	0.35	0.31	0.31		0.51			0.51	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	254	534	426	235	506	412		719			747	
v/s Ratio Prot	c0.01	0.22		0.01	c0.22			c0.42			0.22	
v/s Ratio Perm	0.10		0.03	0.06		0.05						
v/c Ratio	0.31	0.67	0.08	0.19	0.70	0.17		0.82			0.43	
Uniform Delay, d1	19.6	26.2	21.1	20.3	27.2	22.4		18.7			13.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.40			1.28	
Incremental Delay, d2	0.7	6.6	0.4	0.4	7.8	0.9		8.7			1.5	
Delay (s)	20.3	32.8	21.5	20.7	35.0	23.3		16.2			19.2	
Level of Service	C	C	C	C	D	C		B			B	
Approach Delay (s)		29.9			31.9			16.2			19.2	
Approach LOS		C			C			B			B	

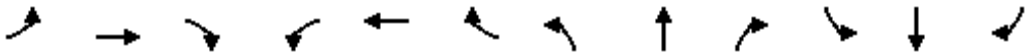
Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



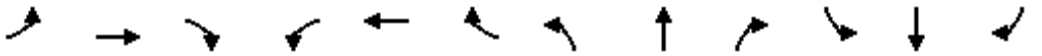
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	204	29	29	136	39	0	492	15	0	319	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.92		1.00	0.97		1.00	0.91		1.00	0.92
Flpb, ped/bikes		1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		1575	1122		1577	1233		1506	1252		1477	1254
Flt Permitted		0.90	1.00		0.91	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		1438	1122		1449	1233		1506	1252		1477	1254
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	56	224	32	32	149	43	0	541	16	0	351	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	280	32	0	181	43	0	541	16	0	351	24
Confl. Peds. (#/hr)	7		33	33		7			27			20
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	22%	6%	17%	0%	6%	12%	9%	4%	7%	5%	6%	9%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		31.0	31.0		31.0	31.0		50.0	50.0		50.0	50.0
Effective Green, g (s)		31.0	31.0		31.0	31.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio		0.34	0.34		0.34	0.34		0.56	0.56		0.56	0.56
Clearance Time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		495	386		499	424		836	695		820	696
v/s Ratio Prot								c0.36			0.24	
v/s Ratio Perm		c0.19	0.03		0.12	0.03			0.01			0.02
v/c Ratio		0.57	0.08		0.36	0.10		0.65	0.02		0.43	0.03
Uniform Delay, d1		24.0	19.9		22.1	20.0		13.9	9.0		11.7	9.1
Progression Factor		1.00	1.00		1.00	1.00		0.83	0.68		0.68	0.60
Incremental Delay, d2		4.6	0.4		2.0	0.5		2.7	0.0		1.6	0.1
Delay (s)		28.6	20.3		24.1	20.5		14.1	6.2		9.5	5.6
Level of Service		C	C		C	C		B	A		A	A
Approach Delay (s)		27.8			23.4			13.9			9.3	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	17.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.0%	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												
Volume (vph)	46	309	17	44	208	53	0	518	39	0	206	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.97			0.99			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		3060			3009			1257			1150	
Flt Permitted		0.86			0.83			1.00			1.00	
Satd. Flow (perm)		2647			2526			1257			1150	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	51	340	19	48	229	58	0	569	43	0	226	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	410	0	0	335	0	0	612	0	0	237	0
Confl. Peds. (#/hr)	1		9	9		1			5			2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	3%	6%	0%	2%	4%	0%	4%	5%	7%	7%	0%
Parking (#/hr)								28			38	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			57.0			57.0	
Effective Green, g (s)		24.0			24.0			57.0			57.0	
Actuated g/C Ratio		0.27			0.27			0.63			0.63	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		705			673			796			728	
v/s Ratio Prot								c0.49			0.21	
v/s Ratio Perm		c0.15			0.13							
v/c Ratio		0.58			0.50			0.77			0.33	
Uniform Delay, d1		28.6			27.9			11.8			7.6	
Progression Factor		1.00			1.00			0.61			1.18	
Incremental Delay, d2		3.5			2.6			5.2			1.1	
Delay (s)		32.1			30.5			12.4			10.1	
Level of Service		C			C			B			B	
Approach Delay (s)		32.1			30.5			12.4			10.1	
Approach LOS		C			C			B			B	

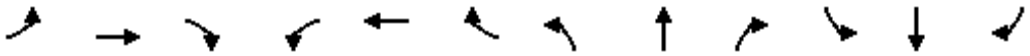
Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	496	42	36	454	72	0	412	35	0	233	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	9	9	10	9	11	11	11	11	11	11
Total Lost time (s)	5.0	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	1.00
Frpb, ped/bikes	1.00	1.00	0.90	1.00	1.00	0.92		1.00	0.88		1.00	0.87
Flpb, ped/bikes	0.98	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1489	1541	1178	1413	1527	1159		1165	890		1143	820
Flt Permitted	0.26	1.00	1.00	0.21	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	407	1541	1178	316	1527	1159		1165	890		1143	820
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	122	545	46	40	499	79	0	453	38	0	256	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	122	545	46	40	499	79	0	453	38	0	256	30
Confl. Peds. (#/hr)	41		54	54		41			41			47
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	9%	5%	6%	10%	9%	7%	6%	3%	10%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		42	42
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	35.0	35.0	35.0	35.0	35.0	35.0		39.0	39.0		39.0	39.0
Effective Green, g (s)	35.0	35.0	35.0	35.0	35.0	35.0		39.0	39.0		39.0	39.0
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.43	0.43		0.43	0.43
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	158	599	458	122	593	450		504	385		495	355
v/s Ratio Prot		c0.35			0.33			c0.39			0.22	
v/s Ratio Perm	0.30		0.04	0.13		0.07			0.04			0.04
v/c Ratio	0.77	0.91	0.10	0.33	0.84	0.18		0.90	0.10		0.52	0.08
Uniform Delay, d1	24.0	26.0	17.5	19.3	25.0	18.0		23.7	15.1		18.6	15.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.48	0.41		0.67	0.58
Incremental Delay, d2	29.9	20.2	0.4	7.0	13.5	0.8		15.4	0.3		3.7	0.4
Delay (s)	53.9	46.2	17.9	26.3	38.5	18.9		26.7	6.5		16.1	9.1
Level of Service	D	D	B	C	D	B		C	A		B	A
Approach Delay (s)		45.7			35.2			25.2			15.4	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

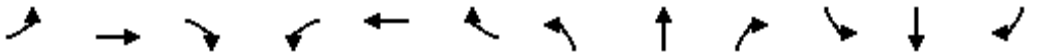
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	26	92	32	0	527	0	0	190	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)					5.0	5.0		4.0			4.0	
Lane Util. Factor					1.00	1.00		1.00			1.00	
Frpb, ped/bikes					1.00	0.96		1.00			0.98	
Flpb, ped/bikes					1.00	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.98	
Flt Protected					0.99	1.00		1.00			1.00	
Satd. Flow (prot)					1625	1314		1149			1005	
Flt Permitted					0.99	1.00		1.00			1.00	
Satd. Flow (perm)					1625	1314		1149			1005	
Peak-hour factor, PHF	0.94	0.94	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	0	0	0	29	101	35	0	579	0	0	209	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	130	35	0	579	0	0	242	0
Confl. Peds. (#/hr)			11	11		12			5			41
Heavy Vehicles (%)	0%	0%	0%	8%	0%	4%	3%	3%	0%	0%	5%	3%
Parking (#/hr)								44			54	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					23.0	23.0		58.0			58.0	
Effective Green, g (s)					23.0	23.0		58.0			58.0	
Actuated g/C Ratio					0.26	0.26		0.64			0.64	
Clearance Time (s)					5.0	5.0		4.0			4.0	
Lane Grp Cap (vph)					415	335		740			647	
v/s Ratio Prot								c0.50			0.24	
v/s Ratio Perm					0.08	0.03						
v/c Ratio					0.31	0.10		0.78			0.37	
Uniform Delay, d1					27.1	25.6		11.5			7.5	
Progression Factor					1.00	1.00		0.67			0.94	
Incremental Delay, d2					2.0	0.6		6.3			1.6	
Delay (s)					29.1	26.2		14.0			8.6	
Level of Service					C	C		B			A	
Approach Delay (s)		0.0			28.5			14.0			8.6	
Approach LOS		A			C			B			A	

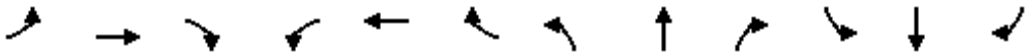
Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	287	71	52	250	39	0	506	49	0	225	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.94		1.00	0.98
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1512	1647	1370	1547	3076			1301	1053		1061	917
Flt Permitted	0.53	1.00	1.00	0.38	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	836	1647	1370	621	3076			1301	1053		1061	917
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	65	315	78	57	275	43	0	556	54	0	247	15
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	65	315	78	57	318	0	0	556	54	0	247	15
Confl. Peds. (#/hr)	3		12	12		3			18			7
Heavy Vehicles (%)	5%	2%	0%	2%	1%	3%	2%	3%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		52	52
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	26.0	26.0	26.0	26.0	26.0			55.0	55.0		55.0	55.0
Effective Green, g (s)	26.0	26.0	26.0	26.0	26.0			55.0	55.0		55.0	55.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29			0.61	0.61		0.61	0.61
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	241	475	395	179	888			795	643		648	560
v/s Ratio Prot		c0.19			0.10			c0.43			0.23	
v/s Ratio Perm	0.08		0.06	0.09					0.05			0.02
v/c Ratio	0.27	0.66	0.20	0.32	0.36			0.70	0.08		0.38	0.03
Uniform Delay, d1	24.7	28.1	24.1	25.1	25.4			11.9	7.2		8.9	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.66	0.73		0.74	0.94
Incremental Delay, d2	2.7	7.1	1.1	4.6	1.1			3.0	0.2		1.6	0.1
Delay (s)	27.4	35.3	25.3	29.7	26.5			10.8	5.4		8.2	6.6
Level of Service	C	D	C	C	C			B	A		A	A
Approach Delay (s)		32.5			27.0			10.4			8.1	
Approach LOS		C			C			B			A	

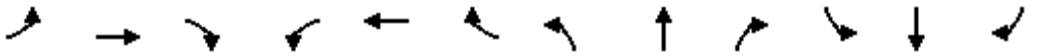
Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	47	31	0	0	0	0	597	55	0	318	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1627						1125			1127	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1627						1125			1127	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.91	0.90	0.91	0.91	0.90	0.91	0.91
Adj. Flow (vph)	66	52	34	0	0	0	0	656	60	0	349	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	152	0	0	0	0	0	716	0	0	349	0
Confl. Peds. (#/hr)	7		8			7			13			11
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	0%	6%	0%	0%	0%	0%	5%	4%	0%	5%	0%
Parking (#/hr)								42			44	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		11.9						69.1			69.1	
Effective Green, g (s)		11.9						69.1			69.1	
Actuated g/C Ratio		0.13						0.77			0.77	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		6.0						3.0			3.0	
Lane Grp Cap (vph)		215						863			865	
v/s Ratio Prot								c0.64			0.31	
v/s Ratio Perm		0.09										
v/c Ratio		0.71						0.83			0.40	
Uniform Delay, d1		37.4						6.7			3.5	
Progression Factor		1.00						0.56			0.72	
Incremental Delay, d2		14.6						5.0			1.4	
Delay (s)		51.9						8.8			3.9	
Level of Service		D						A			A	
Approach Delay (s)		51.9			0.0			8.8			3.9	
Approach LOS		D			A			A			A	

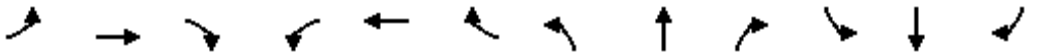
Intersection Summary			
HCM 2000 Control Delay	12.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



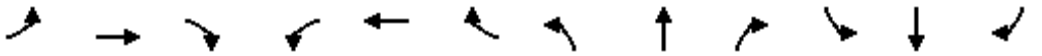
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	109	1044	115	59	845	151	0	500	26	0	236	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	10	10	11	10	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.89	1.00	1.00	0.92		1.00	0.89		1.00	0.97
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1504	3210	1229	1548	3179	1215		1226	930		1061	882
Flt Permitted	0.15	1.00	1.00	0.12	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	231	3210	1229	201	3179	1215		1226	930		1061	882
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	120	1147	126	65	929	166	0	549	29	0	259	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	120	1147	126	65	929	166	0	549	29	0	259	33
Confl. Peds. (#/hr)	34		53	53		34			92			16
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	6%	3%	3%	3%	4%	8%	3%	5%	4%	3%	5%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		52	52
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.6	33.6	33.6	37.2	32.4	32.4		39.6	39.6		39.6	39.6
Effective Green, g (s)	39.6	33.6	33.6	37.2	32.4	32.4		39.6	39.6		39.6	39.6
Actuated g/C Ratio	0.44	0.37	0.37	0.41	0.36	0.36		0.44	0.44		0.44	0.44
Clearance Time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	186	1198	458	154	1144	437		539	409		466	388
v/s Ratio Prot	c0.04	c0.36		0.02	0.29			c0.45			0.24	
v/s Ratio Perm	0.24		0.10	0.15		0.14			0.03			0.04
v/c Ratio	0.65	0.96	0.28	0.42	0.81	0.38		1.02	0.07		0.56	0.09
Uniform Delay, d1	17.6	27.5	19.7	19.2	26.0	21.4		25.2	14.6		18.7	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.82	0.83		0.93	0.84
Incremental Delay, d2	7.5	17.6	1.5	1.9	6.3	2.5		35.8	0.2		4.3	0.4
Delay (s)	25.1	45.1	21.2	21.1	32.4	23.9		56.6	12.4		21.8	12.7
Level of Service	C	D	C	C	C	C		E	B		C	B
Approach Delay (s)		41.2			30.5			54.3			20.8	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	38.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



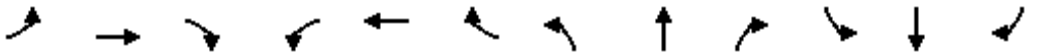
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	27	24	26	8	53	0	611	13	0	448	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			0.95			1.00	0.95		1.00	0.97
Flpb, ped/bikes		0.99			1.00			1.00	1.00		1.00	1.00
Frt		0.96			0.92			1.00	0.85		1.00	0.85
Flt Protected		0.98			0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1543			1442			1054	1404		1154	1429
Flt Permitted		0.90			0.90			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1404			1324			1054	1404		1154	1429
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	26	30	26	29	9	58	0	671	14	0	492	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	82	0	0	96	0	0	671	14	0	492	8
Confl. Peds. (#/hr)	16		4	4		16			9			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	4%	0%	11%	4%	0%
Parking (#/hr)								54			42	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		12.0			12.0			69.0	69.0		69.0	69.0
Effective Green, g (s)		12.0			12.0			69.0	69.0		69.0	69.0
Actuated g/C Ratio		0.13			0.13			0.77	0.77		0.77	0.77
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		8.0			8.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		187			176			808	1076		884	1095
v/s Ratio Prot								c0.64			0.43	
v/s Ratio Perm		0.06			c0.07				0.01			0.01
v/c Ratio		0.44			0.55			0.83	0.01		0.56	0.01
Uniform Delay, d1		35.9			36.5			6.7	2.5		4.3	2.5
Progression Factor		1.00			1.00			0.73	0.79		0.74	0.77
Incremental Delay, d2		6.9			10.9			7.0	0.0		2.4	0.0
Delay (s)		42.8			47.3			12.0	2.0		5.6	1.9
Level of Service		D			D			B	A		A	A
Approach Delay (s)		42.8			47.3			11.8			5.5	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



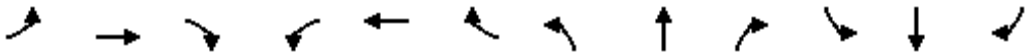
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	178	579	43	62	663	226	0	579	24	0	200	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	10	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.93	1.00	0.98			1.00	0.97		1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.96			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1533	3149	1372	1497	2945			1520	1271		1520	1155
Flt Permitted	0.12	1.00	1.00	0.32	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	197	3149	1372	506	2945			1520	1271		1520	1155
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	196	636	47	68	729	248	0	636	26	0	220	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	196	636	47	68	977	0	0	636	26	0	220	48
Confl. Peds. (#/hr)	43		37	37		43			26			60
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	4%	5%	0%	6%	5%	8%	2%	3%	0%	4%	3%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	38.8	32.8	32.8	36.4	31.6			39.4	39.4		39.4	39.4
Effective Green, g (s)	38.8	32.8	32.8	36.4	31.6			39.4	39.4		39.4	39.4
Actuated g/C Ratio	0.43	0.36	0.36	0.40	0.35			0.44	0.44		0.44	0.44
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	173	1147	500	257	1034			665	556		665	505
v/s Ratio Prot	c0.08	0.20		0.01	0.33			c0.42			0.14	
v/s Ratio Perm	c0.41		0.03	0.09					0.02			0.04
v/c Ratio	1.13	0.55	0.09	0.26	0.94			0.96	0.05		0.33	0.10
Uniform Delay, d1	21.1	22.8	18.8	17.0	28.4			24.5	14.5		16.6	14.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	108.6	1.9	0.4	0.6	17.5			25.7	0.2		1.3	0.4
Delay (s)	129.8	24.7	19.2	17.6	45.9			50.2	14.7		18.0	15.2
Level of Service	F	C	B	B	D			D	B		B	B
Approach Delay (s)		47.8			44.0			48.8			17.5	
Approach LOS		D			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	43.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



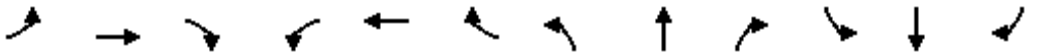
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	810	164	124	889	48	0	553	62	0	789	134
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.84	1.00	0.99			1.00	0.87		1.00	0.92
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	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1580	3160	1172	1546	3133			1253	890		1550	1195
Flt Permitted	0.12	1.00	1.00	0.13	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	200	3160	1172	214	3133			1253	890		1550	1195
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Adj. Flow (vph)	217	853	173	131	936	51	0	582	65	0	831	141
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	217	853	173	131	987	0	0	582	65	0	831	141
Confl. Peds. (#/hr)	72		69	69		72			81			59
Confl. Bikes (#/hr)			5			7			7			6
Heavy Vehicles (%)	1%	1%	2%	3%	0%	4%	2%	0%	3%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								36	36		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	41.2	33.2	33.2	38.8	32.0			57.0	57.0		57.0	57.0
Effective Green, g (s)	41.2	33.2	33.2	38.8	32.0			57.0	57.0		57.0	57.0
Actuated g/C Ratio	0.37	0.30	0.30	0.35	0.29			0.52	0.52		0.52	0.52
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	175	953	353	157	911			649	461		803	619
v/s Ratio Prot	c0.09	0.27		0.05	0.32			0.46			c0.54	
v/s Ratio Perm	c0.37		0.15	0.24					0.07			0.12
v/c Ratio	1.24	0.90	0.49	0.83	1.08			0.90	0.14		1.03	0.23
Uniform Delay, d1	29.6	36.7	31.5	27.4	39.0			23.9	13.8		26.5	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.70	0.78		1.00	1.00
Incremental Delay, d2	147.0	10.6	0.4	28.9	55.0			11.5	0.4		41.1	0.9
Delay (s)	176.7	47.3	31.9	56.3	94.0			28.2	11.2		67.6	15.3
Level of Service	F	D	C	E	F			C	B		E	B
Approach Delay (s)		67.7			89.6			26.5			60.0	
Approach LOS		E			F			C			E	

Intersection Summary			
HCM 2000 Control Delay	65.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	95.4%	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												
Volume (vph)	32	76	30	0	0	0	0	639	32	0	751	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1509						1158			1203	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1509						1158			1203	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.97	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	34	80	32	0	0	0	0	673	34	0	791	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	146	0	0	0	0	0	707	0	0	813	0
Confl. Peds. (#/hr)	23		20			23			22			11
Confl. Bikes (#/hr)			1			1			1			3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	3%	2%	5%
Parking (#/hr)								44			38	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		22.0						80.0			80.0	
Effective Green, g (s)		22.0						80.0			80.0	
Actuated g/C Ratio		0.20						0.73			0.73	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		301						842			874	
v/s Ratio Prot								0.61			c0.68	
v/s Ratio Perm		0.10										
v/c Ratio		0.49						0.84			0.93	
Uniform Delay, d1		39.0						10.5			12.6	
Progression Factor		1.00						1.33			1.39	
Incremental Delay, d2		5.5						8.6			9.4	
Delay (s)		44.5						22.6			27.0	
Level of Service		D						C			C	
Approach Delay (s)		44.5			0.0			22.6			27.0	
Approach LOS		D			A			C			C	

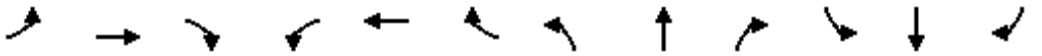
Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	596	69	134	493	77	0	408	40	0	633	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	10	10	9	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00	0.98		1.00	0.95
Flpb, ped/bikes	0.98	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1508	2933		1564	2931			1189	1005		1250	1037
Flt Permitted	0.31	1.00		0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	496	2933		414	2931			1189	1005		1250	1037
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)	125	627	73	141	519	81	0	429	42	0	666	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	125	700	0	141	600	0	0	429	42	0	666	49
Confl. Peds. (#/hr)	30		19	19		30			2			25
Confl. Bikes (#/hr)			2			7						
Heavy Vehicles (%)	0%	3%	0%	1%	2%	0%	8%	1%	0%	2%	3%	0%
Parking (#/hr)								42	42		32	32
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	38.5	38.5		38.5	38.5			62.5	62.5		62.5	62.5
Effective Green, g (s)	38.5	38.5		38.5	38.5			62.5	62.5		62.5	62.5
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.57	0.57		0.57	0.57
Clearance Time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	173	1026		144	1025			675	571		710	589
v/s Ratio Prot		0.24			0.20			0.36			c0.53	
v/s Ratio Perm	0.25			c0.34					0.04			0.05
v/c Ratio	0.72	0.68		0.98	0.59			0.64	0.07		0.94	0.08
Uniform Delay, d1	31.1	30.5		35.4	29.2			16.1	10.7		22.0	10.8
Progression Factor	1.00	1.00		1.00	1.00			0.99	1.10		0.51	0.41
Incremental Delay, d2	13.9	1.9		67.9	0.9			3.9	0.2		10.9	0.1
Delay (s)	45.0	32.4		103.2	30.1			19.8	11.9		22.1	4.5
Level of Service	D	C		F	C			B	B		C	A
Approach Delay (s)		34.3			44.0			19.1			20.9	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

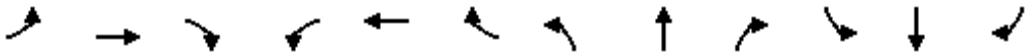
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	84	174	82	0	487	0	0	558	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	4.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.98			1.00			1.00	0.80
Flpb, ped/bikes					0.98			1.00			1.00	1.00
Frt					0.97			1.00			1.00	0.85
Flt Protected					0.99			1.00			1.00	1.00
Satd. Flow (prot)					1592			1499			1126	774
Flt Permitted					0.99			1.00			1.00	1.00
Satd. Flow (perm)					1592			1499			1126	774
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)	0	0	0	88	183	86	0	513	0	0	587	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	357	0	0	513	0	0	587	48
Confl. Peds. (#/hr)			25	25		26			18			39
Confl. Bikes (#/hr)			1			1			6			5
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								6			48	48
Turn Type				Perm	NA			NA			NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8								6
Actuated Green, G (s)					32.0			70.0			70.0	70.0
Effective Green, g (s)					32.0			70.0			70.0	70.0
Actuated g/C Ratio					0.29			0.64			0.64	0.64
Clearance Time (s)					4.0			4.0			4.0	4.0
Lane Grp Cap (vph)					463			953			716	492
v/s Ratio Prot								0.34			c0.52	
v/s Ratio Perm					0.22							0.06
v/c Ratio					0.77			0.54			0.82	0.10
Uniform Delay, d1					35.7			11.1			15.2	7.8
Progression Factor					1.00			0.89			0.62	0.77
Incremental Delay, d2					11.8			1.4			6.3	0.2
Delay (s)					47.4			11.3			15.7	6.2
Level of Service					D			B			B	A
Approach Delay (s)		0.0			47.4			11.3			15.0	
Approach LOS		A			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.8%	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												
Volume (vph)	110	218	33	18	22	25	0	531	22	0	462	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.95			0.99			0.95	
Flpb, ped/bikes		0.97			0.98			1.00			1.00	
Frt		0.99			0.95			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1546			1469			1346			1432	
Flt Permitted		0.88			0.87			1.00			1.00	
Satd. Flow (perm)		1379			1303			1346			1432	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	116	229	35	19	23	26	0	559	23	0	486	55
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	380	0	0	68	0	0	582	0	0	541	0
Confl. Peds. (#/hr)	42		71	71		42			29			139
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	0%	1%	0%	1%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								22			0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			62.0			62.0	
Effective Green, g (s)		40.0			40.0			62.0			62.0	
Actuated g/C Ratio		0.36			0.36			0.56			0.56	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		501			473			758			807	
v/s Ratio Prot								c0.43			0.38	
v/s Ratio Perm		c0.28			0.05							
v/c Ratio		0.76			0.14			0.77			0.67	
Uniform Delay, d1		30.8			23.5			18.5			16.8	
Progression Factor		1.00			1.00			0.66			0.63	
Incremental Delay, d2		10.3			0.6			5.2			2.5	
Delay (s)		41.1			24.1			17.4			13.0	
Level of Service		D			C			B			B	
Approach Delay (s)		41.1			24.1			17.4			13.0	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

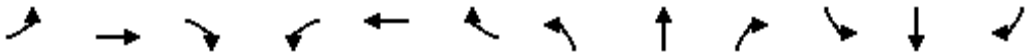
Movement	EBT	EBR	EBR2	WBL	WBT	WBR	WBR2	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	396	57	38	12	366	156	77	561	71	449	35	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	11	10	12	11	11	11	11	11
Total Lost time (s)	5.0				5.0			6.0	6.0	6.0	6.0	
Lane Util. Factor	0.95				0.95			1.00	1.00	1.00	1.00	
Frpb, ped/bikes	0.98				0.93			1.00	0.73	1.00	0.89	
Flpb, ped/bikes	1.00				1.00			1.00	1.00	1.00	1.00	
Frt	0.97				0.94			1.00	0.85	1.00	0.85	
Flt Protected	1.00				1.00			1.00	1.00	1.00	1.00	
Satd. Flow (prot)	3051				2790			1331	831	1506	1314	
Flt Permitted	1.00				0.94			1.00	1.00	1.00	1.00	
Satd. Flow (perm)	3051				2622			1331	831	1506	1314	
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)	417	60	40	13	385	164	81	591	75	473	37	4
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	517	0	0	0	643	0	0	591	75	473	41	0
Confl. Peds. (#/hr)		44		44		76			95		63	
Confl. Bikes (#/hr)		5				13			11		6	
Heavy Vehicles (%)	3%	4%	0%	0%	1%	11%	1%	2%	0%	4%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								24	24	0		
Turn Type	NA			Perm	NA			NA	Perm	NA	Perm	
Protected Phases	10				14			2		6		
Permitted Phases				14					2		6	
Actuated Green, G (s)	27.0				27.0			49.0	49.0	49.0	49.0	
Effective Green, g (s)	27.0				27.0			49.0	49.0	49.0	49.0	
Actuated g/C Ratio	0.25				0.25			0.45	0.45	0.45	0.45	
Clearance Time (s)	5.0				5.0			6.0	6.0	6.0	6.0	
Lane Grp Cap (vph)	748				643			592	370	670	585	
v/s Ratio Prot	0.17							c0.44		0.31		
v/s Ratio Perm					c0.25				0.09		0.03	
v/c Ratio	0.69				1.00			1.00	0.20	0.71	0.07	
Uniform Delay, d1	37.7				41.5			30.5	18.6	24.7	17.5	
Progression Factor	1.00				1.00			0.64	0.66	0.59	0.78	
Incremental Delay, d2	5.2				35.5			29.4	0.8	4.7	0.2	
Delay (s)	42.9				77.0			49.0	13.0	19.1	13.7	
Level of Service	D				E			D	B	B	B	
Approach Delay (s)	42.9				77.0			45.0		18.7		
Approach LOS	D				E			D		B		

Intersection Summary			
HCM 2000 Control Delay	65.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL2	SEL	SET	SER	SER2	NWL2	NWL	NWT	NWR	NWR2
Lane Configurations										
Volume (vph)	4	53	271	93	12	7	31	279	97	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	11	11	11	12	9	11	11	11
Total Lost time (s)		6.0	6.0	6.0			6.0	6.0	6.0	
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		1.00	1.00	0.85			1.00	1.00	0.85	
Flt Protected		0.95	1.00	1.00			0.95	1.00	1.00	
Satd. Flow (prot)		1511	1706	1466			1539	1740	1453	
Flt Permitted		0.24	1.00	1.00			0.24	1.00	1.00	
Satd. Flow (perm)		374	1706	1466			381	1740	1453	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	56	285	98	13	7	33	294	102	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	60	285	111	0	0	40	294	110	0
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Heavy Vehicles (%)	0%	2%	2%	1%	0%	0%	0%	0%	0%	25%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Turn Type	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	
Protected Phases			4					8		
Permitted Phases	4	4		4		8	8		8	
Actuated Green, G (s)		17.0	17.0	17.0			17.0	17.0	17.0	
Effective Green, g (s)		17.0	17.0	17.0			17.0	17.0	17.0	
Actuated g/C Ratio		0.15	0.15	0.15			0.15	0.15	0.15	
Clearance Time (s)		6.0	6.0	6.0			6.0	6.0	6.0	
Lane Grp Cap (vph)		57	263	226			58	268	224	
v/s Ratio Prot			0.17					c0.17		
v/s Ratio Perm		0.16		0.08			0.10		0.08	
v/c Ratio		1.05	1.08	0.49			0.69	1.10	0.49	
Uniform Delay, d1		46.5	46.5	42.5			44.0	46.5	42.5	
Progression Factor		1.00	1.00	1.00			1.00	1.00	1.00	
Incremental Delay, d2		134.7	79.6	7.4			50.6	83.4	7.5	
Delay (s)		181.2	126.1	50.0			94.6	129.9	50.0	
Level of Service		F	F	D			F	F	D	
Approach Delay (s)			114.8					106.9		
Approach LOS			F					F		

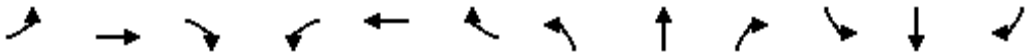
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	306	32	0	651	0	0	732	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.99			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1907			1413			1238	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1907			1413			1238	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	0	0	0	136	322	34	0	685	0	0	771	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	492	0	0	685	0	0	820	0
Confl. Peds. (#/hr)			40	40		26			33			56
Confl. Bikes (#/hr)			2			2			2			3
Heavy Vehicles (%)	0%	0%	0%	3%	0%	3%	0%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								16			30	30
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					29.0			73.0			73.0	
Effective Green, g (s)					29.0			73.0			73.0	
Actuated g/C Ratio					0.26			0.66			0.66	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					502			937			821	
v/s Ratio Prot								0.48			c0.66	
v/s Ratio Perm					0.26							
v/c Ratio					0.98			0.73			1.00	
Uniform Delay, d1					40.2			12.1			18.5	
Progression Factor					1.00			0.30			0.84	
Incremental Delay, d2					35.5			2.1			29.0	
Delay (s)					75.7			5.7			44.4	
Level of Service					E			A			D	
Approach Delay (s)		0.0			75.7			5.7			44.4	
Approach LOS		A			E			A			D	

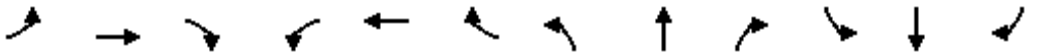
Intersection Summary			
HCM 2000 Control Delay	38.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	229	107	0	0	0	0	657	68	0	696	75
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						0.99			0.99	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.97						0.99			0.99	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1666						1373			1401	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1666						1373			1401	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.96	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	126	241	113	0	0	0	0	692	72	0	733	79
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	480	0	0	0	0	0	764	0	0	812	0
Confl. Peds. (#/hr)	27		8			27			11			22
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	2%	2%	1%	0%	0%	43%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								16	16		8	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		34.0						68.0			68.0	
Effective Green, g (s)		34.0						68.0			68.0	
Actuated g/C Ratio		0.31						0.62			0.62	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		514						848			866	
v/s Ratio Prot								0.56			c0.58	
v/s Ratio Perm		0.29										
v/c Ratio		0.93						0.90			0.94	
Uniform Delay, d1		36.9						18.1			19.1	
Progression Factor		1.00						0.87			1.00	
Incremental Delay, d2		26.3						1.7			7.2	
Delay (s)		63.2						17.5			26.2	
Level of Service		E						B			C	
Approach Delay (s)		63.2			0.0			17.5			26.2	
Approach LOS		E			A			B			C	

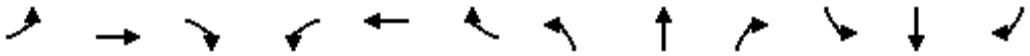
Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	533	55	170	639	83	0	735	70	0	1014	98
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	10	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00	0.91		1.00	0.79
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1577	3058		1561	3043			758	588		1385	1145
Flt Permitted	0.18	1.00		0.17	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	302	3058		286	3043			758	588		1385	1145
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	177	561	58	179	673	87	0	774	74	0	1067	103
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	177	619	0	179	760	0	0	774	74	0	1067	103
Confl. Peds. (#/hr)	29		30	30		29			17			52
Confl. Bikes (#/hr)			12			7			9			8
Heavy Vehicles (%)	1%	2%	0%	2%	2%	1%	0%	1%	0%	4%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								92	92		16	
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	27.0	22.0		29.0	23.0			71.0	71.0		71.0	71.0
Effective Green, g (s)	27.0	22.0		29.0	23.0			71.0	71.0		71.0	71.0
Actuated g/C Ratio	0.25	0.20		0.26	0.21			0.65	0.65		0.65	0.65
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	132	611		144	636			489	379		893	739
v/s Ratio Prot	0.06	0.20		c0.07	0.25			c1.02			0.77	
v/s Ratio Perm	c0.27			0.26					0.13			0.09
v/c Ratio	1.34	1.01		1.24	1.19			1.58	0.20		1.19	0.14
Uniform Delay, d1	40.8	44.0		38.3	43.5			19.5	7.9		19.5	7.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.35	1.07
Incremental Delay, d2	195.5	39.7		154.6	102.6			271.9	1.1		96.3	0.3
Delay (s)	236.3	83.7		192.9	146.1			291.4	9.1		122.5	8.4
Level of Service	F	F		F	F			F	A		F	A
Approach Delay (s)		117.6			155.0			266.8			112.5	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	159.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

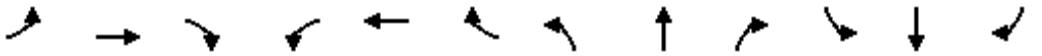
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	211	49	96	209	31	0	676	54	0	718	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.99			0.99			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1546			1565			1206			1486	
Flt Permitted		0.84			0.68			1.00			1.00	
Satd. Flow (perm)		1307			1075			1206			1486	
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	222	52	101	220	33	0	712	57	0	756	46
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	331	0	0	354	0	0	769	0	0	802	0
Confl. Peds. (#/hr)	9		11	11		9			8			20
Confl. Bikes (#/hr)			3						1			2
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%	6%	1%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			82.0			82.0	
Effective Green, g (s)		40.0			40.0			82.0			82.0	
Actuated g/C Ratio		0.31			0.31			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		402			330			760			937	
v/s Ratio Prot								c0.64			0.54	
v/s Ratio Perm		0.25			c0.33							
v/c Ratio		0.82			1.07			1.01			0.86	
Uniform Delay, d1		41.7			45.0			24.0			19.3	
Progression Factor		1.00			1.00			0.34			1.00	
Incremental Delay, d2		17.2			70.2			23.3			9.9	
Delay (s)		58.9			115.2			31.3			29.2	
Level of Service		E			F			C			C	
Approach Delay (s)		58.9			115.2			31.3			29.2	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	47.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

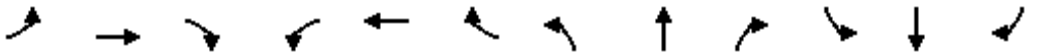


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	148	648	16	96	524	28	0	730	75	0	679	170
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	9	10	9	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0		2.0	5.0	5.0		5.0	5.0		5.0	2.0
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.93		1.00	0.93		1.00	0.93
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		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1580	3144		1536	1631	1234		1516	1180		1520	1212
Flt Permitted	0.10	1.00		0.22	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	173	3144		350	1631	1234		1516	1180		1520	1212
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	156	682	17	101	552	29	0	768	79	0	715	179
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	156	699	0	101	552	29	0	768	79	0	715	179
Confl. Peds. (#/hr)	21		21	21		21			34			20
Confl. Bikes (#/hr)			9			2			6			
Heavy Vehicles (%)	1%	1%	0%	0%	3%	4%	0%	1%	1%	9%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								4	4		0	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	pm+ov
Protected Phases	7	4		3	8			2 10			6	7
Permitted Phases	4			8		8			2 10			6
Actuated Green, G (s)	49.8	41.8		52.2	43.0	43.0		67.0	67.0		64.0	72.0
Effective Green, g (s)	49.8	41.8		52.2	43.0	43.0		65.0	65.0		64.0	72.0
Actuated g/C Ratio	0.38	0.32		0.40	0.33	0.33		0.50	0.50		0.49	0.55
Clearance Time (s)	2.0	5.0		2.0	5.0	5.0					5.0	2.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0					3.0	3.0
Lane Grp Cap (vph)	152	1010		224	539	408		758	590		748	671
v/s Ratio Prot	c0.06	0.22		c0.03	c0.34			c0.51			0.47	0.02
v/s Ratio Perm	0.33			0.15		0.02			0.07			0.13
v/c Ratio	1.03	0.69		0.45	1.02	0.07		1.01	0.13		0.96	0.27
Uniform Delay, d1	34.0	38.5		26.6	43.5	29.8		32.5	17.4		31.6	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.49	0.58		1.15	1.19
Incremental Delay, d2	80.1	3.9		1.4	45.0	0.3		19.0	0.1		16.4	0.1
Delay (s)	114.1	42.4		28.0	88.5	30.1		34.9	10.3		52.8	18.2
Level of Service	F	D		C	F	C		C	B		D	B
Approach Delay (s)		55.5			77.1			32.6			45.9	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	51.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL2	WBT	WBR	NBT	NBR	SBT	SBR	SBR2	NEL
Lane Configurations											
Volume (vph)	509	209	28	560	157	739	32	687	20	7	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	16
Total Lost time (s)	5.0			5.0		5.0		5.0			
Lane Util. Factor	0.95			0.95		1.00		1.00			
Frpb, ped/bikes	0.98			0.99		1.00		1.00			
Flpb, ped/bikes	1.00			1.00		1.00		1.00			
Frt	0.96			0.97		0.99		0.99			
Flt Protected	1.00			1.00		1.00		1.00			
Satd. Flow (prot)	3095			3134		1540		1449			
Flt Permitted	1.00			0.90		1.00		1.00			
Satd. Flow (perm)	3095			2817		1540		1449			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92
Adj. Flow (vph)	536	220	29	589	165	778	34	723	21	7	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	756	0	0	783	0	812	0	751	0	0	0
Confl. Peds. (#/hr)		34			11						
Heavy Vehicles (%)	0%	0%	0%	1%	2%	1%	3%	4%	0%	14%	2%
Parking (#/hr)						0		6			
Turn Type	NA		Perm	NA		NA		NA			
Protected Phases	4			8		2		6			10
Permitted Phases			8								
Actuated Green, G (s)	56.0			56.0		64.0		64.0			
Effective Green, g (s)	56.0			56.0		64.0		64.0			
Actuated g/C Ratio	0.43			0.43		0.49		0.49			
Clearance Time (s)	5.0			5.0		5.0		5.0			
Vehicle Extension (s)	3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)	1333			1213		758		713			
v/s Ratio Prot	0.24					c0.53		0.52			
v/s Ratio Perm				c0.28							
v/c Ratio	0.57			0.65		1.07		1.05			
Uniform Delay, d1	27.9			29.2		33.0		33.0			
Progression Factor	1.00			1.00		1.04		0.52			
Incremental Delay, d2	1.8			2.7		40.0		37.9			
Delay (s)	29.6			31.8		74.4		55.1			
Level of Service	C			C		E		E			
Approach Delay (s)	29.6			31.8		74.4		55.1			0.0
Approach LOS	C			C		E		E			A

Intersection Summary			
HCM 2000 Control Delay	48.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	95.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

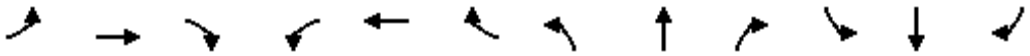


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	216	9	220	360	22	0	786	133	0	728	86
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00			1.00	0.96		1.00	0.97
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frt		1.00	0.85		0.99			1.00	0.85		1.00	0.85
Flt Protected		0.98	1.00		0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1651	1384		3092			1550	1259		1491	1413
Flt Permitted		0.52	1.00		0.63			1.00	1.00		1.00	1.00
Satd. Flow (perm)		871	1384		1970			1550	1259		1491	1413
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	109	227	9	232	379	23	0	827	140	0	766	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	336	9	0	634	0	0	827	140	0	766	91
Confl. Peds. (#/hr)	4		4	4		4			6			6
Heavy Vehicles (%)	0%	0%	0%	1%	0%	5%	0%	1%	0%	10%	5%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								0	0		0	
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		51.0	51.0		51.0			71.0	71.0		71.0	71.0
Effective Green, g (s)		51.0	51.0		51.0			71.0	71.0		71.0	71.0
Actuated g/C Ratio		0.39	0.39		0.39			0.55	0.55		0.55	0.55
Clearance Time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		341	542		772			846	687		814	771
v/s Ratio Prot								c0.53			0.51	
v/s Ratio Perm		c0.39	0.01		0.32				0.11			0.06
v/c Ratio		0.99	0.02		0.89dl			0.98	0.20		0.94	0.12
Uniform Delay, d1		39.1	24.2		35.4			28.7	15.1		27.5	14.3
Progression Factor		1.00	1.00		1.00			1.06	1.08		0.59	0.77
Incremental Delay, d2		45.2	0.1		9.6			23.9	0.6		9.4	0.1
Delay (s)		84.3	24.2		45.0			54.4	16.9		25.6	11.1
Level of Service		F	C		D			D	B		C	B
Approach Delay (s)		82.8			45.0			48.9			24.1	
Approach LOS		F			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	44.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

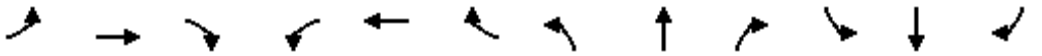
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	319	70	0	518	218	0	545	1	0	695	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	16	16	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0		4.0	3.0		4.0			3.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		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	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1596	1647	1336		2020	1480		1550			1515	
Flt Permitted	0.10	1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (perm)	166	1647	1336		2020	1480		1550			1515	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	21	336	74	0	545	229	0	574	1	0	732	19
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	21	336	74	0	545	229	0	575	0	0	751	0
Confl. Peds. (#/hr)	8		9	9		8			3			1
Heavy Vehicles (%)	0%	2%	1%	0%	1%	0%	0%	1%	0%	5%	3%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm		NA	custom		NA			NA	
Protected Phases		4			8	1		2			6	
Permitted Phases	4		4			8						
Actuated Green, G (s)	43.0	43.0	43.0		43.0	50.0		69.0			80.0	
Effective Green, g (s)	43.0	43.0	43.0		43.0	50.0		69.0			80.0	
Actuated g/C Ratio	0.33	0.33	0.33		0.33	0.38		0.53			0.62	
Clearance Time (s)	4.0	4.0	4.0		4.0	3.0		4.0			3.0	
Lane Grp Cap (vph)	54	544	441		668	569		822			932	
v/s Ratio Prot		0.20			c0.27	0.02		0.37			c0.50	
v/s Ratio Perm	0.13		0.06			0.13						
v/c Ratio	0.39	0.62	0.17		0.82	0.40		0.70			0.81	
Uniform Delay, d1	33.4	36.6	30.8		39.9	29.1		22.8			19.1	
Progression Factor	1.00	1.00	1.00		1.00	1.00		0.54			0.60	
Incremental Delay, d2	19.8	5.2	0.8		10.6	2.1		2.3			3.1	
Delay (s)	53.2	41.8	31.6		50.5	31.2		14.6			14.5	
Level of Service	D	D	C		D	C		B			B	
Approach Delay (s)		40.6			44.8			14.6			14.5	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

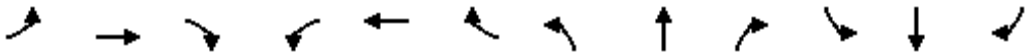
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	448	287	29	5	412	0	165	271	21	0	572	229
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	10	10	16	16	16	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Lane Util. Factor	1.00	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	0.96
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99			1.00		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1637	1608			1980		1637	1467			1689	1238
Flt Permitted	0.14	1.00			1.00		0.11	1.00			1.00	1.00
Satd. Flow (perm)	237	1608			1972		182	1467			1689	1238
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	472	302	31	5	434	0	174	285	22	0	602	241
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	472	333	0	0	439	0	174	307	0	0	602	241
Confl. Peds. (#/hr)	6		5	5		6	15		12			15
Heavy Vehicles (%)	1%	3%	0%	0%	3%	0%	1%	4%	5%	11%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	0	0
Parking (#/hr)								0				0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA			NA	pm+ov
Protected Phases	7	4			8		5	2			6	7
Permitted Phases	4			8			2					6
Actuated Green, G (s)	61.4	61.4			30.4		59.6	59.6			49.0	77.0
Effective Green, g (s)	61.4	61.4			30.4		59.6	59.6			49.0	77.0
Actuated g/C Ratio	0.47	0.47			0.23		0.46	0.46			0.38	0.59
Clearance Time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	413	759			461		179	672			636	733
v/s Ratio Prot	c0.25	0.21					c0.06	0.21			c0.36	0.07
v/s Ratio Perm	c0.29				0.22		0.38					0.12
v/c Ratio	1.14	0.44			0.95		0.97	0.46			0.95	0.33
Uniform Delay, d1	38.5	22.8			49.1		28.8	24.1			39.2	13.4
Progression Factor	1.00	1.00			1.00		1.70	1.01			0.91	0.54
Incremental Delay, d2	89.4	0.4			29.9		32.0	0.8			19.1	0.2
Delay (s)	127.8	23.2			79.0		81.1	25.1			54.9	7.5
Level of Service	F	C			E		F	C			D	A
Approach Delay (s)		84.6			79.0			45.4			41.3	
Approach LOS		F			E			D			D	

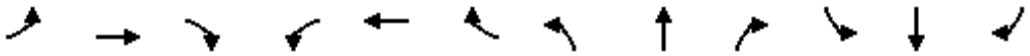
Intersection Summary			
HCM 2000 Control Delay	62.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	105.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	185	16	113	265	9	0	489	107	0	573	100
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0			4.0			4.0	
Lane Util. Factor		1.00	1.00		1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.95		1.00			0.92			0.98	
Flpb, ped/bikes		1.00	1.00		0.99			1.00			1.00	
Frt		1.00	0.85		1.00			0.98			0.98	
Flt Protected		1.00	1.00		0.99			1.00			1.00	
Satd. Flow (prot)		1713	1451		1692			888			1463	
Flt Permitted		1.00	1.00		0.72			1.00			1.00	
Satd. Flow (perm)		1709	1451		1230			888			1463	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	2	195	17	119	279	9	0	515	113	0	603	105
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	197	17	0	407	0	0	628	0	0	708	0
Confl. Peds. (#/hr)	62		8	8		62			125			24
Heavy Vehicles (%)	0%	5%	0%	5%	3%	0%	0%	2%	0%	50%	3%	5%
Parking (#/hr)								64			0	
Turn Type	Perm	NA	Perm	pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)		42.0	42.0		42.0			79.0			79.0	
Effective Green, g (s)		42.0	42.0		42.0			79.0			79.0	
Actuated g/C Ratio		0.32	0.32		0.32			0.61			0.61	
Clearance Time (s)		5.0	5.0		5.0			4.0			4.0	
Vehicle Extension (s)		3.0	3.0		3.0			3.0			3.0	
Lane Grp Cap (vph)		552	468		397			539			889	
v/s Ratio Prot								c0.71			0.48	
v/s Ratio Perm		0.12	0.01		c0.33							
v/c Ratio		0.36	0.04		1.03			1.17			0.80	
Uniform Delay, d1		33.7	30.1		44.0			25.5			19.4	
Progression Factor		1.00	1.00		1.00			1.18			0.51	
Incremental Delay, d2		1.8	0.1		51.8			90.7			5.1	
Delay (s)		35.5	30.3		95.8			120.9			15.1	
Level of Service		D	C		F			F			B	
Approach Delay (s)		35.1			95.8			120.9			15.1	
Approach LOS		D			F			F			B	

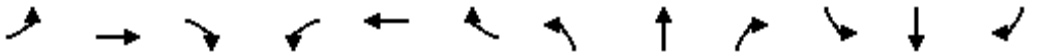
Intersection Summary			
HCM 2000 Control Delay	68.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	4	74	9	4	26	0	551	3	0	675	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			0.97			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.91			0.91			1.00			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1414			1456			1300			1473	
Flt Permitted		0.90			0.95			1.00			1.00	
Satd. Flow (perm)		1297			1396			1300			1473	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	34	4	78	9	4	27	0	580	3	0	711	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	116	0	0	40	0	0	583	0	0	719	0
Confl. Peds. (#/hr)	6		15	15		6						8
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	8%	3%	0%	0%	6%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			104.0			104.0	
Effective Green, g (s)		18.0			18.0			104.0			104.0	
Actuated g/C Ratio		0.14			0.14			0.80			0.80	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		179			193			1040			1178	
v/s Ratio Prot								0.45			c0.49	
v/s Ratio Perm		c0.09			0.03							
v/c Ratio		0.65			0.21			0.56			0.61	
Uniform Delay, d1		53.0			49.7			4.7			5.1	
Progression Factor		1.00			1.00			0.52			0.57	
Incremental Delay, d2		10.6			1.1			1.3			1.3	
Delay (s)		63.6			50.8			3.8			4.2	
Level of Service		E			D			A			A	
Approach Delay (s)		63.6			50.8			3.8			4.2	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

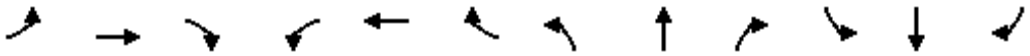
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	584	57	140	558	34	0	594	143	0	718	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.94		1.00	0.94
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1480	2714		1520	2985			1250	985		1177	886
Flt Permitted	0.17	1.00		0.14	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	270	2714		217	2985			1250	985		1177	886
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	106	615	60	147	587	36	0	625	151	0	756	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	106	675	0	147	623	0	0	625	151	0	756	31
Confl. Peds. (#/hr)			48	48					21			20
Heavy Vehicles (%)	4%	11%	4%	1%	2%	6%	2%	3%	3%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		42	42
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	38.0	31.0		38.0	31.0			81.0	81.0		81.0	81.0
Effective Green, g (s)	38.0	31.0		38.0	31.0			81.0	81.0		81.0	81.0
Actuated g/C Ratio	0.29	0.24		0.29	0.24			0.62	0.62		0.62	0.62
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	144	647		133	711			778	613		733	552
v/s Ratio Prot	0.04	0.25		c0.06	0.21			0.50			c0.64	
v/s Ratio Perm	0.18			c0.26					0.15			0.03
v/c Ratio	0.74	1.04		1.11	0.88			0.80	0.25		1.03	0.06
Uniform Delay, d1	36.8	49.5		41.7	47.7			18.5	10.9		24.5	9.6
Progression Factor	1.00	1.00		1.00	1.00			0.88	0.87		0.46	0.53
Incremental Delay, d2	17.7	47.2		109.1	14.3			7.4	0.8		38.8	0.2
Delay (s)	54.4	96.7		150.8	61.9			23.8	10.4		50.1	5.3
Level of Service	D	F		F	E			C	B		D	A
Approach Delay (s)		90.9			78.9			21.1			48.4	
Approach LOS		F			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	59.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

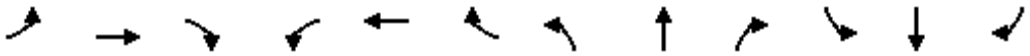
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	40	5	39	24	66	0	593	26	0	788	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	11	11	11	11	11	11	11	11	11
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.96			1.00			1.00	
Flpb, ped/bikes		0.98			0.97			1.00			1.00	
Frt		0.99			0.93			0.99			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1860			1456			1146			1438	
Flt Permitted		0.72			0.90			1.00			1.00	
Satd. Flow (perm)		1381			1324			1146			1438	
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)	60	42	5	41	25	69	0	624	27	0	829	17
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	107	0	0	135	0	0	651	0	0	846	0
Confl. Peds. (#/hr)	18		38	38		18			5			47
Heavy Vehicles (%)	4%	0%	20%	5%	0%	2%	4%	1%	0%	1%	1%	0%
Parking (#/hr)								46			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			100.0			100.0	
Effective Green, g (s)		24.0			24.0			100.0			100.0	
Actuated g/C Ratio		0.18			0.18			0.77			0.77	
Clearance Time (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		254			244			881			1106	
v/s Ratio Prot								0.57			c0.59	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.42			0.55			0.74			0.76	
Uniform Delay, d1		46.9			48.1			8.0			8.4	
Progression Factor		1.00			1.00			0.80			0.34	
Incremental Delay, d2		5.1			8.8			5.4			1.9	
Delay (s)		51.9			56.9			11.8			4.8	
Level of Service		D			E			B			A	
Approach Delay (s)		51.9			56.9			11.8			4.8	
Approach LOS		D			E			B			A	

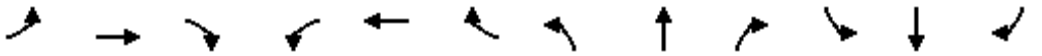
Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	236	73	0	340	77	0	363	2	0	804	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	11	11	11	11	11	8	11	11	11
Total Lost time (s)	5.0	5.0			5.0	3.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.90		1.00			1.00	
Flpb, ped/bikes	0.95	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.96			1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1435	1592			1706	1312		1705			1535	
Flt Permitted	0.32	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (perm)	488	1592			1706	1312		1705			1535	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.95	0.95	0.90	0.95	0.95	0.90	0.95	0.95
Adj. Flow (vph)	35	248	77	0	358	81	0	382	2	0	846	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	35	325	0	0	358	81	0	384	0	0	848	0
Confl. Peds. (#/hr)	49		18			49						5
Heavy Vehicles (%)	6%	5%	3%	0%	2%	1%	8%	2%	0%	5%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA			NA	custom		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					3 8						
Actuated Green, G (s)	32.0	32.0			37.0	37.0		83.0			83.0	
Effective Green, g (s)	32.0	32.0			37.0	37.0		83.0			83.0	
Actuated g/C Ratio	0.25	0.25			0.28	0.28		0.64			0.64	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)	120	391			485	373		1088			980	
v/s Ratio Prot		c0.20			c0.21			0.23			c0.55	
v/s Ratio Perm	0.07					0.06						
v/c Ratio	0.29	0.83			0.74	0.22		0.35			0.87	
Uniform Delay, d1	39.8	46.4			42.1	35.5		11.0			19.0	
Progression Factor	1.00	1.00			1.00	1.00		0.38			0.73	
Incremental Delay, d2	6.1	18.3			9.7	1.3		0.7			8.7	
Delay (s)	45.9	64.7			51.8	36.8		4.9			22.5	
Level of Service	D	E			D	D		A			C	
Approach Delay (s)		62.9			49.0			4.9			22.5	
Approach LOS		E			D			A			C	

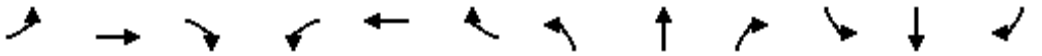
Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	461	29	251	716	15	0	408	144	0	680	183
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.66	1.00	1.00	0.56		1.00	0.68		1.00	0.67
Flpb, ped/bikes	0.86	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1421	3179	978	1577	3160	806		1464	1007		1550	866
Flt Permitted	0.34	1.00	1.00	0.33	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	508	3179	978	544	3160	806		1464	1007		1550	866
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.93	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	109	485	31	264	754	16	0	429	152	0	716	193
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	109	485	31	264	754	16	0	429	152	0	716	193
Confl. Peds. (#/hr)	169		130	130		169			244			272
Confl. Bikes (#/hr)						3						5
Heavy Vehicles (%)	0%	4%	0%	1%	1%	0%	7%	1%	0%	0%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								10			0	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.0	39.0	39.0	53.0	53.0	53.0		67.0	67.0		67.0	67.0
Effective Green, g (s)	39.0	39.0	39.0	53.0	53.0	53.0		67.0	67.0		67.0	67.0
Actuated g/C Ratio	0.30	0.30	0.30	0.41	0.41	0.41		0.52	0.52		0.52	0.52
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	152	953	293	309	1288	328		754	518		798	446
v/s Ratio Prot		0.15		c0.07	0.24			0.29			c0.46	
v/s Ratio Perm	0.21		0.03	c0.28		0.02			0.15			0.22
v/c Ratio	0.72	0.51	0.11	0.85	0.59	0.05		0.57	0.29		0.90	0.43
Uniform Delay, d1	40.6	37.6	32.9	32.3	30.0	23.3		21.6	18.0		28.4	19.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.93	1.00		0.49	0.44
Incremental Delay, d2	25.1	1.9	0.7	24.8	2.0	0.3		2.6	1.2		8.0	1.5
Delay (s)	65.7	39.5	33.6	57.1	31.9	23.5		22.8	19.1		21.8	10.0
Level of Service	E	D	C	E	C	C		C	B		C	B
Approach Delay (s)		43.8			38.2			21.9			19.3	
Approach LOS		D			D			C			B	

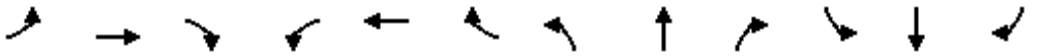
Intersection Summary			
HCM 2000 Control Delay	30.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



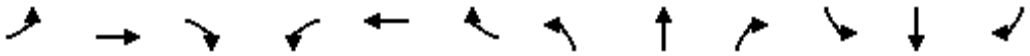
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	325	58	94	523	62	0	463	130	0	743	181
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	9	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	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	0.94		1.00	0.81		1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1565	1723	1426	1499	1663	1288		1365	1189		1255	1395
Flt Permitted	0.17	1.00	1.00	0.39	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	283	1723	1426	610	1663	1288		1365	1189		1255	1395
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	126	342	61	99	551	65	0	487	137	0	782	191
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	126	342	61	99	551	65	0	487	137	0	782	191
Confl. Peds. (#/hr)	14		5	5		14			37			6
Heavy Vehicles (%)	2%	1%	0%	2%	1%	0%	0%	2%	1%	2%	4%	1%
Parking (#/hr)								20			30	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	51.0	51.0	51.0	51.0	51.0	51.0		73.0	73.0		73.0	73.0
Effective Green, g (s)	51.0	51.0	51.0	51.0	51.0	51.0		73.0	73.0		73.0	73.0
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.56	0.56		0.56	0.56
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	111	675	559	239	652	505		766	667		704	783
v/s Ratio Prot		0.20			0.33			0.36			c0.62	
v/s Ratio Perm	c0.44		0.04	0.16		0.05			0.12			0.14
v/c Ratio	1.14	0.51	0.11	0.41	0.85	0.13		0.64	0.21		1.11	0.24
Uniform Delay, d1	39.5	30.0	25.1	28.7	35.9	25.3		19.4	14.1		28.5	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.73	0.90
Incremental Delay, d2	126.4	0.6	0.1	1.2	9.8	0.1		4.0	0.7		62.2	0.4
Delay (s)	165.9	30.6	25.2	29.8	45.7	25.4		23.4	14.8		82.9	13.5
Level of Service	F	C	C	C	D	C		C	B		F	B
Approach Delay (s)		62.2			41.7			21.5			69.3	
Approach LOS		E			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



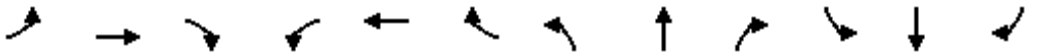
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	548	72	38	691	33	0	508	111	0	496	217
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.86		1.00	0.95
Flpb, ped/bikes	0.99	1.00		0.98	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1643	3215		1614	3246			1430	1279		1550	1404
Flt Permitted	0.20	1.00		0.27	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	353	3215		455	3246			1430	1279		1550	1404
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	108	577	76	40	727	35	0	535	117	0	522	228
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	108	653	0	40	762	0	0	535	117	0	522	228
Confl. Peds. (#/hr)	16		50	50		16			121			38
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	1%	0%	1%	1%	0%
Parking (#/hr)								14			0	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.1	30.1		30.1	30.1			51.9	51.9		51.9	51.9
Effective Green, g (s)	30.1	30.1		30.1	30.1			51.9	51.9		51.9	51.9
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.58	0.58		0.58	0.58
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	118	1075		152	1085			824	737		893	809
v/s Ratio Prot		0.20			0.23			c0.37			0.34	
v/s Ratio Perm	c0.31			0.09					0.09			0.16
v/c Ratio	0.92	0.61		0.26	0.70			0.65	0.16		0.58	0.28
Uniform Delay, d1	28.7	25.0		21.9	26.1			12.9	8.9		12.2	9.6
Progression Factor	1.00	1.00		1.00	1.00			0.65	0.68		1.00	1.00
Incremental Delay, d2	56.7	1.0		0.9	2.1			3.2	0.4		2.8	0.9
Delay (s)	85.4	26.0		22.8	28.1			11.5	6.4		15.0	10.5
Level of Service	F	C		C	C			B	A		B	B
Approach Delay (s)		34.4			27.9			10.6			13.6	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	22.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.1%	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												
Volume (vph)	53	28	25	15	55	23	0	652	7	0	649	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.97			0.97			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1524			1570			1462			1407	
Flt Permitted		0.83			0.95			1.00			1.00	
Satd. Flow (perm)		1302			1497			1462			1407	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	56	29	26	16	58	24	0	686	7	0	683	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	98	0	0	693	0	0	704	0
Confl. Peds. (#/hr)	8		16	16		8			11			8
Heavy Vehicles (%)	0%	7%	0%	7%	0%	0%	0%	1%	0%	2%	2%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		14	14
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			64.0			64.0	
Effective Green, g (s)		18.0			18.0			64.0			64.0	
Actuated g/C Ratio		0.20			0.20			0.71			0.71	
Clearance Time (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		260			299			1039			1000	
v/s Ratio Prot								0.47			c0.50	
v/s Ratio Perm		c0.09			0.07							
v/c Ratio		0.43			0.33			0.67			0.70	
Uniform Delay, d1		31.5			30.8			7.1			7.5	
Progression Factor		1.00			1.00			0.60			1.18	
Incremental Delay, d2		5.1			2.9			2.3			3.9	
Delay (s)		36.5			33.7			6.6			12.8	
Level of Service		D			C			A			B	
Approach Delay (s)		36.5			33.7			6.6			12.8	
Approach LOS		D			C			A			B	

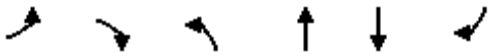
Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	156	584	92	82	676	104	0	531	50	0	498	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00			1.00	0.95		1.00	0.89
Flpb, ped/bikes	1.00	1.00		0.96	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1564	2998		1526	3042			1430	1401		1535	1169
Flt Permitted	0.18	1.00		0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	289	2998		401	3042			1430	1401		1535	1169
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	164	615	97	86	712	109	0	559	53	0	524	75
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	164	712	0	86	821	0	0	559	53	0	524	75
Confl. Peds. (#/hr)	5		69	69		5			23			56
Heavy Vehicles (%)	2%	2%	1%	0%	3%	0%	10%	1%	0%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								14			0	0
Turn Type	pm+pt	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	39.0	38.0		28.0	28.0			44.0	44.0		44.0	44.0
Effective Green, g (s)	39.0	38.0		28.0	28.0			44.0	44.0		44.0	44.0
Actuated g/C Ratio	0.43	0.42		0.31	0.31			0.49	0.49		0.49	0.49
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	224	1265		124	946			699	684		750	571
v/s Ratio Prot	c0.06	0.24			c0.27			c0.39			0.34	
v/s Ratio Perm	0.26			0.21					0.04			0.06
v/c Ratio	0.73	0.56		0.69	0.87			0.80	0.08		0.70	0.13
Uniform Delay, d1	31.3	19.7		27.2	29.3			19.3	12.2		17.9	12.6
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		0.99	1.10
Incremental Delay, d2	11.7	1.8		27.4	10.6			9.3	0.2		4.0	0.4
Delay (s)	42.9	21.5		54.6	39.9			28.6	12.4		21.8	14.2
Level of Service	D	C		D	D			C	B		C	B
Approach Delay (s)		25.5			41.3			27.2			20.8	
Approach LOS		C			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

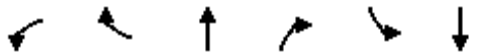
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	53	55	0	464	742	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.97			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1458			1535	1489	
Flt Permitted	0.98			1.00	1.00	
Satd. Flow (perm)	1458			1535	1489	
Peak-hour factor, PHF	0.95	0.95	0.97	0.95	0.95	0.95
Adj. Flow (vph)	56	58	0	488	781	89
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	114	0	0	488	870	0
Confl. Peds. (#/hr)	18	3				
Heavy Vehicles (%)	2%	9%	21%	2%	4%	1%
Parking (#/hr)				0	0	
Turn Type	NA			NA	NA	
Protected Phases	4			2 10	6	
Permitted Phases						
Actuated Green, G (s)	16.0			88.0	80.0	
Effective Green, g (s)	16.0			88.0	80.0	
Actuated g/C Ratio	0.15			0.80	0.73	
Clearance Time (s)	3.0				3.0	
Lane Grp Cap (vph)	212			1228	1082	
v/s Ratio Prot	c0.08			c0.32	c0.58	
v/s Ratio Perm						
v/c Ratio	0.54			0.40	0.80	
Uniform Delay, d1	43.6			3.2	9.9	
Progression Factor	1.00			0.44	1.00	
Incremental Delay, d2	9.4			0.8	6.4	
Delay (s)	53.0			2.2	16.2	
Level of Service	D			A	B	
Approach Delay (s)	53.0			2.2	16.2	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

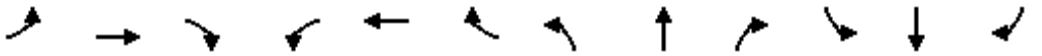
c Critical Lane Group



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	36	61	464	79	0	758
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	10	11	11	11	11
Total Lost time (s)	3.0		3.0			3.0
Lane Util. Factor	1.00		1.00			1.00
Frpb, ped/bikes	0.87		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	0.92		0.98			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1226		1507			1439
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1226		1507			1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.99	0.95
Adj. Flow (vph)	38	64	488	83	0	798
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	102	0	571	0	0	798
Confl. Peds. (#/hr)	3	18				
Heavy Vehicles (%)	6%	7%	2%	1%	0%	4%
Parking (#/hr)			0			8
Turn Type	NA		NA			NA
Protected Phases	8		2			6 14
Permitted Phases						
Actuated Green, G (s)	16.0		80.0			88.0
Effective Green, g (s)	16.0		80.0			88.0
Actuated g/C Ratio	0.15		0.73			0.80
Clearance Time (s)	3.0		3.0			
Lane Grp Cap (vph)	178		1096			1151
v/s Ratio Prot	c0.08		0.38			c0.55
v/s Ratio Perm						
v/c Ratio	0.57		0.52			0.69
Uniform Delay, d1	43.8		6.6			4.9
Progression Factor	1.00		0.67			0.17
Incremental Delay, d2	12.7		1.2			2.1
Delay (s)	56.5		5.6			2.9
Level of Service	E		A			A
Approach Delay (s)	56.5		5.6			2.9
Approach LOS	E		A			A

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

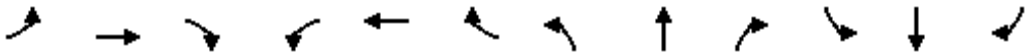
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	274	31	32	307	89	0	491	25	0	586	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.99			0.98			0.99			1.00	0.62
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.97			0.99			1.00	0.85
Flt Protected		0.99			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1721			1686			1221			1689	819
Flt Permitted		0.92			0.96			1.00			1.00	1.00
Satd. Flow (perm)		1584			1617			1221			1689	819
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.93	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	36	288	33	34	323	94	0	517	26	0	617	32
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	357	0	0	451	0	0	543	0	0	617	32
Confl. Peds. (#/hr)	27		52	52		27			45			88
Confl. Bikes (#/hr)			2						2			
Heavy Vehicles (%)	3%	1%	0%	0%	1%	2%	0%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								36	36			0
Turn Type	Perm	NA		Perm	NA			NA			NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8								6
Actuated Green, G (s)		40.0			40.0			62.0			62.0	62.0
Effective Green, g (s)		40.0			40.0			62.0			62.0	62.0
Actuated g/C Ratio		0.36			0.36			0.56			0.56	0.56
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		576			588			688			951	461
v/s Ratio Prot								c0.44			0.37	
v/s Ratio Perm		0.23			c0.28							0.04
v/c Ratio		0.62			0.77			0.79			0.65	0.07
Uniform Delay, d1		28.8			30.9			18.9			16.5	10.9
Progression Factor		1.00			1.00			0.36			0.62	0.56
Incremental Delay, d2		5.0			9.3			8.7			2.5	0.2
Delay (s)		33.7			40.1			15.5			12.6	6.3
Level of Service		C			D			B			B	A
Approach Delay (s)		33.7			40.1			15.5			12.3	
Approach LOS		C			D			B			B	

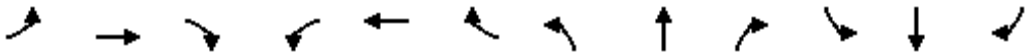
Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



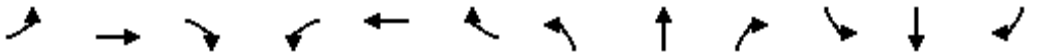
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	251	21	0	583	0	0	662	99
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.98		1.00			0.99	
Flpb, ped/bikes				0.99	1.00	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.98	
Flt Protected				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)				1585	3160	1401		3079			2759	
Flt Permitted				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (perm)				1585	3160	1401		3079			2759	
Peak-hour factor, PHF	0.91	0.97	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	0	0	0	21	264	22	0	614	0	0	697	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	21	264	22	0	614	0	0	801	0
Confl. Peds. (#/hr)			5	5		5			27			44
Confl. Bikes (#/hr)			2						1			1
Heavy Vehicles (%)	9%	0%	0%	0%	1%	0%	3%	2%	0%	0%	3%	0%
Parking (#/hr)								0			26	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				31.0	31.0	31.0		71.0			71.0	
Effective Green, g (s)				31.0	31.0	31.0		71.0			71.0	
Actuated g/C Ratio				0.28	0.28	0.28		0.65			0.65	
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Grp Cap (vph)				446	890	394		1987			1780	
v/s Ratio Prot					c0.08			0.20			c0.29	
v/s Ratio Perm				0.01		0.02						
v/c Ratio				0.05	0.30	0.06		0.31			0.45	
Uniform Delay, d1				28.7	31.0	28.8		8.6			9.7	
Progression Factor				1.00	1.00	1.00		0.21			0.82	
Incremental Delay, d2				0.2	0.9	0.3		0.4			0.7	
Delay (s)				28.9	31.8	29.1		2.2			8.7	
Level of Service				C	C	C		A			A	
Approach Delay (s)		0.0			31.4			2.2			8.7	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



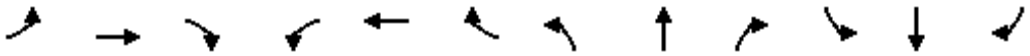
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	338	71	0	0	0	0	570	36	0	562	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						1.00			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.99			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		2953						2741			2614	
Flt Permitted		1.00						1.00			1.00	
Satd. Flow (perm)		2953						2741			2614	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.96	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	48	356	75	0	0	0	0	600	38	0	592	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	479	0	0	0	0	0	638	0	0	592	0
Confl. Peds. (#/hr)			2						19			30
Confl. Bikes (#/hr)									3			3
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	2%	0%	3%	3%	0%
Parking (#/hr)								0			18	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		43.0						59.0			59.0	
Effective Green, g (s)		43.0						59.0			59.0	
Actuated g/C Ratio		0.39						0.54			0.54	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		1154						1470			1402	
v/s Ratio Prot								c0.23			0.23	
v/s Ratio Perm		0.16										
v/c Ratio		0.42						0.43			0.42	
Uniform Delay, d1		24.4						15.4			15.3	
Progression Factor		1.00						0.58			0.87	
Incremental Delay, d2		1.1						0.8			0.9	
Delay (s)		25.5						9.7			14.2	
Level of Service		C						A			B	
Approach Delay (s)		25.5			0.0			9.7			14.2	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.0%	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												
Volume (vph)	44	614	84	14	828	208	0	485	4	0	591	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		2.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.97	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.97			1.00			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1587	2957		1548	2963			3105			3005	
Flt Permitted	0.17	1.00		0.30	1.00			1.00			1.00	
Satd. Flow (perm)	278	2957		493	2963			3105			3005	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	46	646	88	15	872	219	0	511	4	0	622	46
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	46	734	0	15	1091	0	0	515	0	0	668	0
Confl. Peds. (#/hr)	31		74	74		31			23			27
Confl. Bikes (#/hr)						3			1			2
Heavy Vehicles (%)	0%	5%	0%	0%	4%	0%	17%	1%	0%	5%	3%	2%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		custom	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			3 8								
Actuated Green, G (s)	52.0	52.0		63.0	61.0			41.0			41.0	
Effective Green, g (s)	52.0	52.0		63.0	61.0			41.0			41.0	
Actuated g/C Ratio	0.47	0.47		0.57	0.55			0.37			0.37	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	131	1397		282	1643			1157			1120	
v/s Ratio Prot		0.25			c0.37			0.17			c0.22	
v/s Ratio Perm	0.17			0.03								
v/c Ratio	0.35	0.53		0.05	0.66			0.45			0.60	
Uniform Delay, d1	18.3	20.3		10.4	17.3			25.9			27.8	
Progression Factor	1.00	1.00		1.00	1.00			0.64			0.69	
Incremental Delay, d2	7.3	1.4		0.4	2.1			1.0			2.2	
Delay (s)	25.6	21.8		10.7	19.4			17.6			21.4	
Level of Service	C	C		B	B			B			C	
Approach Delay (s)		22.0			19.3			17.6			21.4	
Approach LOS		C			B			B			C	

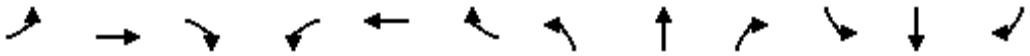
Intersection Summary			
HCM 2000 Control Delay	20.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	742	0	204	640	0	0	367	168	0	396	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.95			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1708	3353		1636	3241			3076			2936	
Flt Permitted	0.36	1.00		0.29	1.00			1.00			1.00	
Satd. Flow (perm)	638	3353		495	3241			3076			2936	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	181	781	0	215	674	0	0	386	177	0	417	80
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	181	781	0	215	674	0	0	563	0	0	497	0
Confl. Peds. (#/hr)	3		7	7		3			13			22
Confl. Bikes (#/hr)			1			3			3			5
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	0%	2%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA		pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	57.0	57.0		71.0	70.0			32.0			32.0	
Effective Green, g (s)	57.0	57.0		71.0	70.0			32.0			32.0	
Actuated g/C Ratio	0.52	0.52		0.65	0.64			0.29			0.29	
Clearance Time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	330	1737		423	2062			894			854	
v/s Ratio Prot		0.23		c0.05	0.21			c0.18			0.17	
v/s Ratio Perm	c0.28			0.28								
v/c Ratio	0.55	0.45		0.51	0.33			0.63			0.58	
Uniform Delay, d1	17.8	16.6		18.0	9.2			33.9			33.3	
Progression Factor	1.00	1.00		1.00	1.00			0.60			0.34	
Incremental Delay, d2	6.4	0.8		4.3	0.4			3.2			2.4	
Delay (s)	24.3	17.5		22.3	9.6			23.4			13.8	
Level of Service	C	B		C	A			C			B	
Approach Delay (s)		18.8			12.7			23.4			13.8	
Approach LOS		B			B			C			B	

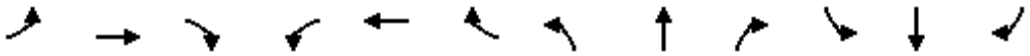
Intersection Summary			
HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	50	34	52	52	20	0	540	20	0	454	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.95			0.98			0.99			1.00	
Flt Protected		1.00			0.98			1.00			1.00	
Satd. Flow (prot)		1561			1572			2858			3019	
Flt Permitted		1.00			0.86			1.00			1.00	
Satd. Flow (perm)		1561			1378			2858			3019	
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)	0	53	36	55	55	21	0	568	21	0	478	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	0	131	0	0	589	0	0	479	0
Confl. Peds. (#/hr)	7		17	17		7			15			18
Confl. Bikes (#/hr)			1						2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	2%	5%	1%	4%	0%
Parking (#/hr)								24	24		0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		38.0			38.0			64.0			64.0	
Effective Green, g (s)		38.0			38.0			64.0			64.0	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		539			476			1662			1756	
v/s Ratio Prot		0.06						c0.21			0.16	
v/s Ratio Perm					c0.10							
v/c Ratio		0.17			0.28			0.35			0.27	
Uniform Delay, d1		25.0			26.0			12.1			11.4	
Progression Factor		1.00			1.00			0.33			0.43	
Incremental Delay, d2		0.7			1.4			0.6			0.3	
Delay (s)		25.6			27.5			4.5			5.2	
Level of Service		C			C			A			A	
Approach Delay (s)		25.6			27.5			4.5			5.2	
Approach LOS		C			C			A			A	

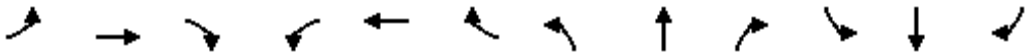
Intersection Summary			
HCM 2000 Control Delay	8.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	68	144	83	0	506	0	0	645	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					2939			2642			2908	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					2939			2642			2908	
Peak-hour factor, PHF	0.91	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)	0	0	0	72	152	87	0	533	0	0	679	47
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	311	0	0	533	0	0	726	0
Confl. Peds. (#/hr)			8	8		32			17			33
Confl. Bikes (#/hr)						2			1			1
Heavy Vehicles (%)	6%	0%	0%	0%	1%	1%	0%	2%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								54			12	12
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					35.0			67.0			67.0	
Effective Green, g (s)					35.0			67.0			67.0	
Actuated g/C Ratio					0.32			0.61			0.61	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					935			1609			1771	
v/s Ratio Prot								0.20			c0.25	
v/s Ratio Perm					0.11							
v/c Ratio					0.33			0.33			0.41	
Uniform Delay, d1					28.6			10.5			11.2	
Progression Factor					1.00			0.28			0.63	
Incremental Delay, d2					1.0			0.5			0.7	
Delay (s)					29.6			3.5			7.7	
Level of Service					C			A			A	
Approach Delay (s)		0.0			29.6			3.5			7.7	
Approach LOS		A			C			A			A	

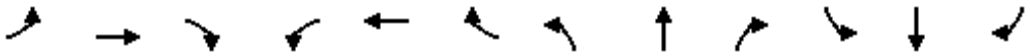
Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



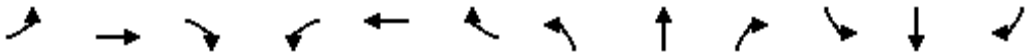
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	228	109	0	0	0	0	638	90	0	472	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0					4.0			4.0	
Lane Util. Factor		0.95	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.97					0.99			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			1.00	
Frt		1.00	0.85					0.98			1.00	
Flt Protected		0.99	1.00					1.00			1.00	
Satd. Flow (prot)		3301	1472					3167			2889	
Flt Permitted		0.99	1.00					1.00			1.00	
Satd. Flow (perm)		3301	1472					3167			2889	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.88	0.95	0.92	0.95	0.95	0.88	0.95	0.95
Adj. Flow (vph)	65	240	115	0	0	0	0	672	95	0	497	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	305	115	0	0	0	0	767	0	0	497	0
Confl. Peds. (#/hr)	6		13			6			20			9
Heavy Vehicles (%)	0%	3%	1%	2%	0%	0%	2%	2%	1%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		20	
Turn Type	Perm	NA	Perm					NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4		4									
Actuated Green, G (s)		38.0	38.0					63.0			63.0	
Effective Green, g (s)		38.0	38.0					63.0			63.0	
Actuated g/C Ratio		0.35	0.35					0.57			0.57	
Clearance Time (s)		5.0	5.0					4.0			4.0	
Lane Grp Cap (vph)		1140	508					1813			1654	
v/s Ratio Prot								c0.24			0.17	
v/s Ratio Perm		0.09	0.08									
v/c Ratio		0.27	0.23					0.42			0.30	
Uniform Delay, d1		26.0	25.6					13.3			12.1	
Progression Factor		1.00	1.00					0.50			0.49	
Incremental Delay, d2		0.6	1.0					0.6			0.4	
Delay (s)		26.5	26.6					7.2			6.4	
Level of Service		C	C					A			A	
Approach Delay (s)		26.6			0.0			7.2			6.4	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



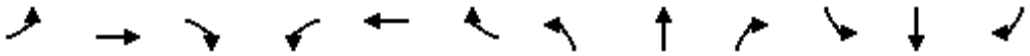
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	292	340	185	337	522	0	0	673	129
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				0.97	1.00	1.00	0.91	0.91			0.95	
Frpb, ped/bikes				1.00	1.00	0.97	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	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	0.99			1.00	
Satd. Flow (prot)				3144	1673	1397	1475	2930			2955	
Flt Permitted				0.95	1.00	1.00	0.95	0.90			1.00	
Satd. Flow (perm)				3144	1673	1397	1475	2657			2955	
Peak-hour factor, PHF	0.91	0.99	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	0	0	0	307	358	195	355	549	0	0	708	136
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	307	358	195	291	613	0	0	844	0
Confl. Peds. (#/hr)						8	15		9			15
Confl. Bikes (#/hr)						3			1			9
Heavy Vehicles (%)	7%	0%	0%	2%	4%	3%	2%	2%	0%	0%	3%	1%
Parking (#/hr)								0			0	
Turn Type				Split	NA	Perm	Prot	NA			NA	
Protected Phases				8	8		5	5 6			6 16	
Permitted Phases						8						
Actuated Green, G (s)				25.0	25.0	25.0	38.0	50.0			35.0	
Effective Green, g (s)				25.0	25.0	25.0	38.0	50.0			33.0	
Actuated g/C Ratio				0.23	0.23	0.23	0.35	0.45			0.30	
Clearance Time (s)				4.0	4.0	4.0	4.0					
Lane Grp Cap (vph)				714	380	317	509	1302			886	
v/s Ratio Prot				0.10	c0.21		c0.20	0.16			c0.29	
v/s Ratio Perm						0.14		0.05				
v/c Ratio				0.43	0.94	0.62	0.57	0.47			0.95	
Uniform Delay, d1				36.4	41.8	38.2	29.4	20.8			37.7	
Progression Factor				1.00	1.00	1.00	0.54	0.40			0.78	
Incremental Delay, d2				1.9	33.6	8.6	1.9	0.5			20.6	
Delay (s)				38.3	75.4	46.8	17.7	8.9			49.8	
Level of Service				D	E	D	B	A			D	
Approach Delay (s)		0.0			55.7			11.7			49.8	
Approach LOS		A			E			B			D	

Intersection Summary			
HCM 2000 Control Delay	38.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.0%	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												
Volume (vph)	192	268	258	0	0	0	0	732	322	256	609	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00					0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.95		1.00	1.00	
Flt Protected		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3290	1471					2911		1637	3031	
Flt Permitted		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3290	1471					2911		1637	3031	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.96	0.95	0.96	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	202	282	272	0	0	0	0	771	339	269	641	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	484	272	0	0	0	0	1110	0	269	641	0
Confl. Peds. (#/hr)									3	3		2
Heavy Vehicles (%)	3%	1%	4%	1%	0%	0%	0%	2%	1%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Split	NA	Perm					NA		Prot	NA	
Protected Phases	4	4						2 12		1	1 2	
Permitted Phases			4									
Actuated Green, G (s)		26.0	26.0					43.0		29.0	60.0	
Effective Green, g (s)		26.0	26.0					41.0		29.0	60.0	
Actuated g/C Ratio		0.24	0.24					0.37		0.26	0.55	
Clearance Time (s)		4.0	4.0							4.0		
Lane Grp Cap (vph)		777	347					1085		431	1653	
v/s Ratio Prot		0.15						c0.38		c0.16	0.21	
v/s Ratio Perm			c0.18									
v/c Ratio		0.62	0.78					1.02		0.62	0.39	
Uniform Delay, d1		37.6	39.4					34.5		35.7	14.4	
Progression Factor		1.00	1.00					0.74		0.61	0.84	
Incremental Delay, d2		3.7	16.1					29.2		4.3	0.4	
Delay (s)		41.4	55.5					54.6		26.1	12.6	
Level of Service		D	E					D		C	B	
Approach Delay (s)		46.4			0.0			54.6			16.6	
Approach LOS		D			A			D			B	

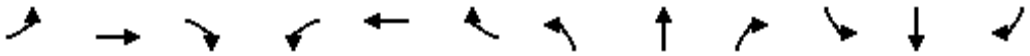
Intersection Summary			
HCM 2000 Control Delay	39.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	280	308	161	60	164	54	0	1018	84	0	689	102
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	0.91	0.91		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.97		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.95	1.00			1.00			1.00	
Frt	1.00	0.95		1.00	0.96			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1488	2897		1521	2877			3041			2960	
Flt Permitted	0.50	0.92		0.44	1.00			1.00			1.00	
Satd. Flow (perm)	778	2663		705	2877			3041			2960	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	295	324	169	63	173	57	0	1072	88	0	725	107
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	248	540	0	63	230	0	0	1160	0	0	832	0
Confl. Peds. (#/hr)	29		84	84		29			36			18
Confl. Bikes (#/hr)			1			2			3			1
Heavy Vehicles (%)	0%	0%	0%	0%	7%	0%	0%	1%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	pm+pt	NA		Perm	NA			NA			NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	43.0	43.0		21.0	21.0			57.0			57.0	
Effective Green, g (s)	43.0	43.0		21.0	21.0			57.0			57.0	
Actuated g/C Ratio	0.39	0.39		0.19	0.19			0.52			0.52	
Clearance Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	426	1081		134	549			1575			1533	
v/s Ratio Prot	c0.10	0.09			0.08			c0.38			0.28	
v/s Ratio Perm	c0.13	0.11		0.09								
v/c Ratio	0.58	0.50		0.47	0.42			0.74			0.54	
Uniform Delay, d1	24.6	25.4		39.6	39.1			20.6			17.8	
Progression Factor	1.00	1.00		1.00	1.00			0.70			1.24	
Incremental Delay, d2	5.7	1.6		11.4	2.3			2.8			1.2	
Delay (s)	30.3	27.0		50.9	41.5			17.2			23.2	
Level of Service	C	C		D	D			B			C	
Approach Delay (s)		28.0			43.5			17.2			23.2	
Approach LOS		C			D			B			C	

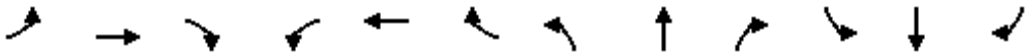
Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	360	0	91	0	0	4	0	825	4	0	723	19
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Util. Factor	0.97		1.00		1.00			0.95			0.95	
Frpb, ped/bikes	1.00		0.98		0.98			1.00			1.00	
Flpb, ped/bikes	0.99		1.00		1.00			1.00			1.00	
Frt	1.00		0.85		0.86			1.00			1.00	
Flt Protected	0.95		1.00		1.00			1.00			1.00	
Satd. Flow (prot)	3077		1400		1533			3046			3064	
Flt Permitted	0.76		1.00		1.00			1.00			1.00	
Satd. Flow (perm)	2446		1400		1533			3046			3064	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.91	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	379	0	96	0	0	4	0	868	4	0	761	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	379	0	96	0	4	0	0	872	0	0	781	0
Confl. Peds. (#/hr)	3		6	6		3			18			11
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Parking (#/hr)								0			0	
Turn Type	custom		custom	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	37.0		37.0		37.0			64.0			64.0	
Effective Green, g (s)	37.0		37.0		37.0			64.0			64.0	
Actuated g/C Ratio	0.34		0.34		0.34			0.58			0.58	
Clearance Time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Grp Cap (vph)	822		470		515			1772			1782	
v/s Ratio Prot					0.00			c0.29			0.25	
v/s Ratio Perm	c0.15		0.07									
v/c Ratio	0.46		0.20		0.01			0.49			0.44	
Uniform Delay, d1	28.7		26.0		24.3			13.5			12.9	
Progression Factor	1.00		1.00		1.00			0.37			0.61	
Incremental Delay, d2	1.9		1.0		0.0			0.7			0.7	
Delay (s)	30.5		27.0		24.3			5.8			8.5	
Level of Service	C		C		C			A			A	
Approach Delay (s)		29.8			24.3			5.8			8.5	
Approach LOS		C			C			A			A	

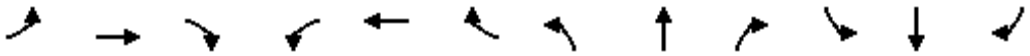
Intersection Summary			
HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	220	60	99	14	16	43	0	771	11	0	785	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.94			0.94			1.00			0.99	
Flpb, ped/bikes		0.95			0.98			1.00			1.00	
Frt		0.96			0.92			1.00			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1409			1394			3044			2998	
Flt Permitted		0.78			0.92			1.00			1.00	
Satd. Flow (perm)		1136			1291			3044			2998	
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)	232	63	104	15	17	45	0	812	12	0	826	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	399	0	0	77	0	0	824	0	0	853	0
Confl. Peds. (#/hr)	61		136	136		61			46			41
Confl. Bikes (#/hr)			10			6			8			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	1%	2%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		58.0			58.0			44.0			44.0	
Effective Green, g (s)		58.0			58.0			44.0			44.0	
Actuated g/C Ratio		0.53			0.53			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		598			680			1217			1199	
v/s Ratio Prot								0.27			c0.28	
v/s Ratio Perm		c0.35			0.06							
v/c Ratio		0.67			0.11			0.68			0.71	
Uniform Delay, d1		19.0			13.1			27.2			27.7	
Progression Factor		1.00			1.00			0.58			0.59	
Incremental Delay, d2		5.8			0.3			2.8			3.3	
Delay (s)		24.8			13.4			18.6			19.6	
Level of Service		C			B			B			B	
Approach Delay (s)		24.8			13.4			18.6			19.6	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

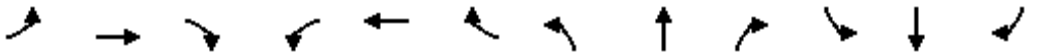
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	296	79	52	163	58	0	597	144	0	585	157
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.90	1.00	1.00	0.75		0.96			0.92	
Flpb, ped/bikes	0.83	1.00	1.00	0.96	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.97			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1318	1631	1280	1525	1615	1044		2834			2720	
Flt Permitted	0.60	1.00	1.00	0.44	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	835	1631	1280	702	1615	1044		2834			2720	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	109	312	83	55	172	61	0	628	152	0	616	165
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	109	312	83	55	172	61	0	780	0	0	781	0
Confl. Peds. (#/hr)	152		57	57		152			40			77
Confl. Bikes (#/hr)			8			3			3			2
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	0%	3%	0%	6%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	43.0	43.0	43.0	43.0	43.0	43.0		58.0			58.0	
Effective Green, g (s)	43.0	43.0	43.0	43.0	43.0	43.0		58.0			58.0	
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.53			0.53	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Grp Cap (vph)	326	637	500	274	631	408		1494			1434	
v/s Ratio Prot		c0.19			0.11			0.28			c0.29	
v/s Ratio Perm	0.13		0.06	0.08		0.06						
v/c Ratio	0.33	0.49	0.17	0.20	0.27	0.15		0.52			0.54	
Uniform Delay, d1	23.5	25.2	21.8	22.1	22.8	21.7		17.0			17.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.32			0.51	
Incremental Delay, d2	2.7	2.7	0.7	1.6	1.1	0.8		1.0			1.1	
Delay (s)	26.2	27.9	22.5	23.8	23.9	22.4		23.4			9.8	
Level of Service	C	C	C	C	C	C		C			A	
Approach Delay (s)		26.7			23.6			23.4			9.8	
Approach LOS		C			C			C			A	

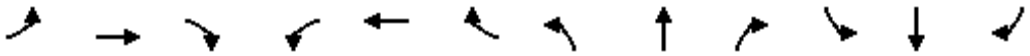
Intersection Summary			
HCM 2000 Control Delay	19.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	136	1492	288	169	797	105	0	463	106	0	642	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.90		1.00	0.90		1.00	0.92
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1576	4354		1596	3099	1254		1550	1180		1673	1196
Flt Permitted	0.19	1.00		0.09	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	311	4354		159	3099	1254		1550	1180		1673	1196
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	143	1571	303	178	839	111	0	487	112	0	676	120
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	143	1874	0	178	839	111	0	487	112	0	676	120
Confl. Peds. (#/hr)	76		47	47		76			78			62
Confl. Bikes (#/hr)			4			3			1			6
Heavy Vehicles (%)	1%	1%	0%	0%	3%	2%	5%	1%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	56.0	46.0		49.3	42.3	42.3		44.0	44.0		44.0	44.0
Effective Green, g (s)	56.0	46.0		49.3	42.3	42.3		44.0	44.0		44.0	44.0
Actuated g/C Ratio	0.51	0.42		0.45	0.38	0.38		0.40	0.40		0.40	0.40
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	5.0	3.0		5.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	281	1820		162	1191	482		620	472		669	478
v/s Ratio Prot	c0.05	0.43		c0.07	0.27			0.31			c0.40	
v/s Ratio Perm	0.21			c0.42		0.09			0.09			0.10
v/c Ratio	0.51	1.03		1.10	0.70	0.23		0.79	0.24		1.01	0.25
Uniform Delay, d1	17.0	32.0		25.1	28.6	22.9		28.9	21.9		33.0	22.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.70	0.78		0.61	0.50
Incremental Delay, d2	3.0	29.1		99.6	3.5	1.1		6.2	0.7		35.8	1.1
Delay (s)	20.0	61.1		124.7	32.1	24.0		26.3	17.7		55.7	12.2
Level of Service	C	E		F	C	C		C	B		E	B
Approach Delay (s)		58.2			45.9			24.7			49.2	
Approach LOS		E			D			C			D	

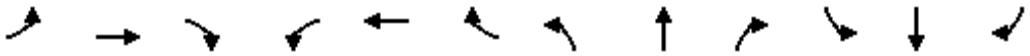
Intersection Summary			
HCM 2000 Control Delay	49.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	95.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	0	314	5	0	2	0	550	0	0	597	9
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.92			0.96			1.00			1.00	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1556			1654			1520			1517	
Flt Permitted		0.87			0.84			1.00			1.00	
Satd. Flow (perm)		1384			1443			1520			1517	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.91	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	201	0	331	5	0	2	0	579	0	0	628	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	532	0	0	7	0	0	579	0	0	637	0
Confl. Peds. (#/hr)	7		7	7		7			28			5
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	3%	0%	6%	0%	4%	3%	0%	0%	3%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		46.1			46.1			55.9			55.9	
Effective Green, g (s)		46.1			46.1			55.9			55.9	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		580			604			772			770	
v/s Ratio Prot								0.38			c0.42	
v/s Ratio Perm		c0.38			0.00							
v/c Ratio		0.92			0.01			0.75			0.83	
Uniform Delay, d1		30.1			18.7			21.5			23.0	
Progression Factor		1.00			1.00			0.47			0.83	
Incremental Delay, d2		20.3			0.0			6.0			4.5	
Delay (s)		50.4			18.7			16.0			23.5	
Level of Service		D			B			B			C	
Approach Delay (s)		50.4			18.7			16.0			23.5	
Approach LOS		D			B			B			C	

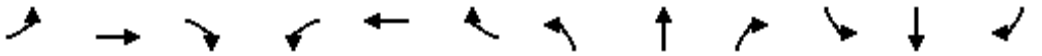
Intersection Summary			
HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



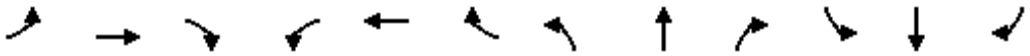
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	198	16	0	6	0	475	0	0	581	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.91			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.97			1.00			1.00	
Frt		0.86			0.96			1.00			0.99	
Flt Protected		1.00			0.96			1.00			1.00	
Satd. Flow (prot)		1399			1624			1372			1520	
Flt Permitted		1.00			0.80			1.00			1.00	
Satd. Flow (perm)		1399			1351			1372			1520	
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.91	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	0	0	208	17	0	6	0	500	0	0	612	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	208	0	0	23	0	0	500	0	0	643	0
Confl. Peds. (#/hr)			24	24					12			14
Confl. Bikes (#/hr)			6						5			5
Heavy Vehicles (%)	7%	0%	1%	0%	0%	0%	2%	4%	0%	4%	2%	0%
Parking (#/hr)								16			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0			73.0			73.0	
Effective Green, g (s)		29.0			29.0			73.0			73.0	
Actuated g/C Ratio		0.26			0.26			0.66			0.66	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		368			356			910			1008	
v/s Ratio Prot		c0.15						0.36			c0.42	
v/s Ratio Perm					0.02							
v/c Ratio		0.57			0.06			0.55			0.64	
Uniform Delay, d1		35.0			30.3			9.8			10.8	
Progression Factor		1.00			1.00			0.83			0.66	
Incremental Delay, d2		6.2			0.3			1.9			2.0	
Delay (s)		41.2			30.7			10.1			9.0	
Level of Service		D			C			B			A	
Approach Delay (s)		41.2			30.7			10.1			9.0	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



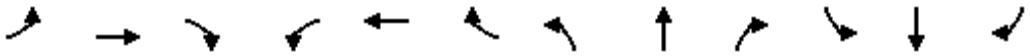
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	428	160	138	390	78	0	681	125	0	522	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.83	1.00	1.00	0.59		1.00	0.76		1.00	0.67
Flpb, ped/bikes	0.86	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1380	1663	1185	1511	1647	811		1351	1097		1326	940
Flt Permitted	0.29	1.00	1.00	0.25	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	427	1663	1185	395	1647	811		1351	1097		1326	940
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	107	451	168	145	411	82	0	717	132	0	549	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	107	451	168	145	411	82	0	717	132	0	549	66
Confl. Peds. (#/hr)	156		59	59		156			58			79
Confl. Bikes (#/hr)			6			11						4
Heavy Vehicles (%)	0%	1%	0%	1%	2%	4%	1%	3%	2%	6%	5%	6%
Parking (#/hr)								20			20	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.0	39.0	39.0	39.0	39.0	39.0		60.0	60.0		60.0	60.0
Effective Green, g (s)	39.0	39.0	39.0	39.0	39.0	39.0		60.0	60.0		60.0	60.0
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35	0.35		0.55	0.55		0.55	0.55
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	151	589	420	140	583	287		736	598		723	512
v/s Ratio Prot		0.27			0.25			c0.53			0.41	
v/s Ratio Perm	0.25		0.14	c0.37		0.10			0.12			0.07
v/c Ratio	0.71	0.77	0.40	1.04	0.70	0.29		0.97	0.22		0.76	0.13
Uniform Delay, d1	30.6	31.5	26.7	35.5	30.5	25.5		24.2	12.9		19.4	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.77	0.72		0.97	0.93
Incremental Delay, d2	24.4	9.2	2.8	85.9	7.0	2.5		19.8	0.5		6.6	0.5
Delay (s)	55.0	40.6	29.5	121.4	37.6	28.0		38.5	9.8		25.4	11.9
Level of Service	E	D	C	F	D	C		D	A		C	B
Approach Delay (s)		40.2			55.4			34.0			24.0	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	79.7%	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												
Volume (vph)	46	45	15	51	75	61	0	798	26	0	670	15
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.95			0.99			0.99	
Flpb, ped/bikes		0.97			0.97			1.00			1.00	
Frt		0.98			0.96			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1638			1568			1382			1269	
Flt Permitted		0.71			0.88			1.00			1.00	
Satd. Flow (perm)		1185			1403			1382			1269	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	48	47	16	54	79	64	0	840	27	0	705	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	197	0	0	867	0	0	721	0
Confl. Peds. (#/hr)	44		50	50		44			66			46
Confl. Bikes (#/hr)			2			4			6			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	6%	3%	0%	0%	6%	7%
Parking (#/hr)								14			24	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			82.0			82.0	
Effective Green, g (s)		20.0			20.0			82.0			82.0	
Actuated g/C Ratio		0.18			0.18			0.75			0.75	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		215			255			1030			945	
v/s Ratio Prot								c0.63			0.57	
v/s Ratio Perm		0.09			c0.14							
v/c Ratio		0.52			0.77			0.84			0.76	
Uniform Delay, d1		40.6			42.8			9.6			8.3	
Progression Factor		1.00			1.00			0.24			0.76	
Incremental Delay, d2		8.6			20.0			4.7			4.0	
Delay (s)		49.2			62.9			7.0			10.3	
Level of Service		D			E			A			B	
Approach Delay (s)		49.2			62.9			7.0			10.3	
Approach LOS		D			E			A			B	

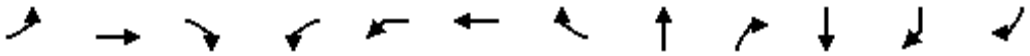
Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	78	27	148	99	30	0	725	51	0	646	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.97			0.99			0.99			1.00	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1700			1670			1331			1371	
Flt Permitted		0.86			0.70			1.00			1.00	
Satd. Flow (perm)		1477			1197			1331			1371	
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)	41	82	28	156	104	32	0	763	54	0	680	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	151	0	0	292	0	0	817	0	0	702	0
Confl. Peds. (#/hr)	33		17	17		33			18			20
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	0%	3%	2%	2%	6%	0%
Parking (#/hr)								20			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.6			28.6			73.4			73.4	
Effective Green, g (s)		28.6			28.6			73.4			73.4	
Actuated g/C Ratio		0.26			0.26			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		384			311			888			914	
v/s Ratio Prot								c0.61			0.51	
v/s Ratio Perm		0.10			c0.24							
v/c Ratio		0.39			0.94			0.92			0.77	
Uniform Delay, d1		33.5			39.8			15.8			12.5	
Progression Factor		1.00			1.00			0.41			1.03	
Incremental Delay, d2		1.4			35.9			2.0			4.0	
Delay (s)		34.9			75.7			8.4			16.8	
Level of Service		C			E			A			B	
Approach Delay (s)		34.9			75.7			8.4			16.8	
Approach LOS		C			E			A			B	

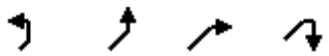
Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	81	301	87	84	172	451	45	620	97	555	104	31
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	12	11	10	11	12	11	11	11	11	11
Total Lost time (s)	4.0	4.0			3.0	4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95			1.00	0.95		1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.98		1.00	0.98	1.00	0.86	
Flpb, ped/bikes	0.89	1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.97			1.00	0.99		1.00	0.85	1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (prot)	1413	3045			1451	3066		895	701	1442	1069	
Flt Permitted	0.46	1.00			0.26	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (perm)	682	3045			398	3066		895	701	1442	1069	
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)	85	317	92	88	181	475	47	653	102	584	109	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	85	409	0	0	269	522	0	653	102	584	142	0
Confl. Peds. (#/hr)	99						99		6		53	
Confl. Bikes (#/hr)			2				6		6		1	
Heavy Vehicles (%)	0%	5%	2%	10%	10%	4%	3%	3%	8%	5%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	3	0
Parking (#/hr)								74	74	6	6	
Turn Type	Perm	NA		pm+pt	pm+pt	NA		NA	Perm	NA	Perm	
Protected Phases		4		3	3	8		2		6		
Permitted Phases	4			8	8				2		6	
Actuated Green, G (s)	19.9	19.9			30.9	30.9		57.0	57.0	57.0	57.0	
Effective Green, g (s)	19.9	19.9			30.9	30.9		57.0	57.0	57.0	57.0	
Actuated g/C Ratio	0.18	0.18			0.28	0.28		0.52	0.52	0.52	0.52	
Clearance Time (s)	4.0	4.0			3.0	4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	123	550			188	861		463	363	747	553	
v/s Ratio Prot		0.13			c0.10	0.17		c0.73		0.41		
v/s Ratio Perm	0.12				c0.30				0.15		0.13	
v/c Ratio	0.69	0.74			1.43	0.61		1.41	0.28	0.78	0.26	
Uniform Delay, d1	42.2	42.6			37.3	34.3		26.5	14.9	21.5	14.7	
Progression Factor	1.00	1.00			1.00	1.00		0.97	0.96	0.69	0.77	
Incremental Delay, d2	15.4	5.4			221.7	1.2		195.6	1.7	3.6	0.2	
Delay (s)	57.6	48.0			259.0	35.5		221.3	16.0	18.5	11.6	
Level of Service	E	D			F	D		F	B	B	B	
Approach Delay (s)		49.7				111.5		193.5		17.1		
Approach LOS		D				F		F		B		

Intersection Summary			
HCM 2000 Control Delay	96.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

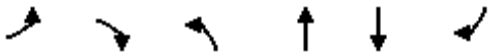


Movement	NEL2	NEL	NER	NER2
Lane Configurations				
Volume (vph)	4	97	159	47
Ideal Flow (vphpl)	1800	1800	1800	1800
Lane Width	11	11	12	12
Total Lost time (s)		4.0	4.0	
Lane Util. Factor		1.00	0.88	
Frpb, ped/bikes		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	
Frt		1.00	0.85	
Flt Protected		0.95	1.00	
Satd. Flow (prot)		1637	2507	
Flt Permitted		0.99	1.00	
Satd. Flow (perm)		1701	2507	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	102	167	49
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	0	106	216	0
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Heavy Vehicles (%)	0%	1%	9%	2%
Bus Blockages (#/hr)	0	0	0	0
Parking (#/hr)				
Turn Type	Perm	NA	Perm	
Protected Phases		9		
Permitted Phases	9		9	
Actuated Green, G (s)		10.1	10.1	
Effective Green, g (s)		10.1	10.1	
Actuated g/C Ratio		0.09	0.09	
Clearance Time (s)		4.0	4.0	
Vehicle Extension (s)		3.0	3.0	
Lane Grp Cap (vph)		156	230	
v/s Ratio Prot				
v/s Ratio Perm		0.06	c0.09	
v/c Ratio		0.68	0.94	
Uniform Delay, d1		48.4	49.6	
Progression Factor		1.00	1.00	
Incremental Delay, d2		11.2	42.2	
Delay (s)		59.6	91.8	
Level of Service		E	F	
Approach Delay (s)		81.2		
Approach LOS		F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	4	0	0	1	0	799	0	0	778	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.94			0.95			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.91			0.86			1.00			1.00	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1500			1473			1657			1722	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		1525			1473			1657			1722	
Peak-hour factor, PHF	0.95	0.94	0.95	0.95	0.94	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	2	0	4	0	0	1	0	841	0	0	819	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	6	0	0	1	0	0	841	0	0	820	0
Confl. Peds. (#/hr)	1		2	2		1			1			12
Confl. Bikes (#/hr)									2			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	14%	5%	0%	25%	1%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		1.6			1.6			98.4			98.4	
Effective Green, g (s)		1.6			1.6			98.4			98.4	
Actuated g/C Ratio		0.01			0.01			0.89			0.89	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		22			21			1482			1540	
v/s Ratio Prot					0.00			c0.51			0.48	
v/s Ratio Perm		c0.00										
v/c Ratio		0.27			0.05			0.57			0.53	
Uniform Delay, d1		53.6			53.4			1.2			1.2	
Progression Factor		1.00			1.00			1.00			0.50	
Incremental Delay, d2		13.6			2.0			1.6			0.7	
Delay (s)		67.2			55.4			2.8			1.3	
Level of Service		E			E			A			A	
Approach Delay (s)		67.2			55.4			2.8			1.3	
Approach LOS		E			E			A			A	

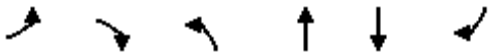
Intersection Summary			
HCM 2000 Control Delay	2.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	785	778	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)				5.0	5.0	
Lane Util. Factor				1.00	1.00	
Frpb, ped/bikes				1.00	1.00	
Flpb, ped/bikes				1.00	1.00	
Frt				1.00	1.00	
Flt Protected				1.00	1.00	
Satd. Flow (prot)				1689	1689	
Flt Permitted				1.00	1.00	
Satd. Flow (perm)				1689	1689	
Peak-hour factor, PHF	0.95	0.95	0.96	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	826	819	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	819	0
Confl. Peds. (#/hr)		10				16
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	0%	0%	50%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	3
Turn Type		Perm		NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4				6
Actuated Green, G (s)				100.0	100.0	
Effective Green, g (s)				100.0	100.0	
Actuated g/C Ratio				1.00	1.00	
Clearance Time (s)				5.0	5.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				1689	1689	
v/s Ratio Prot				c0.49	0.48	
v/s Ratio Perm						
v/c Ratio				0.49	0.48	
Uniform Delay, d1				0.0	0.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.8	1.0	
Delay (s)				0.8	1.0	
Level of Service				A	A	
Approach Delay (s)	0.0			0.8	1.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	0.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

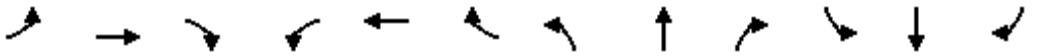
c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	8	18	0	692	706	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)	4.0	4.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.96		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1710	1255		1171	1187	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1710	1255		1171	1187	
Peak-hour factor, PHF	0.95	0.95	0.92	0.95	0.95	0.95
Adj. Flow (vph)	8	19	0	728	743	5
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	8	19	0	728	748	0
Confl. Peds. (#/hr)		2				3
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	17%	29%	4%	4%	0%
Parking (#/hr)				40	38	
Turn Type	NA	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Actuated Green, G (s)	4.9	4.9		86.1	86.1	
Effective Green, g (s)	4.9	4.9		86.1	86.1	
Actuated g/C Ratio	0.05	0.05		0.86	0.86	
Clearance Time (s)	4.0	4.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	61		1008	1022	
v/s Ratio Prot	0.00			0.62	c0.63	
v/s Ratio Perm		c0.02				
v/c Ratio	0.10	0.31		0.72	0.73	
Uniform Delay, d1	45.4	45.9		2.6	2.6	
Progression Factor	1.00	1.00		1.58	1.00	
Incremental Delay, d2	0.5	2.9		3.8	4.1	
Delay (s)	45.9	48.8		7.8	6.7	
Level of Service	D	D		A	A	
Approach Delay (s)	48.0			7.8	6.7	
Approach LOS	D			A	A	

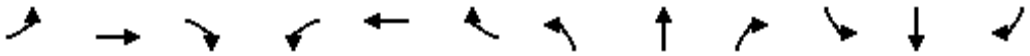
Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



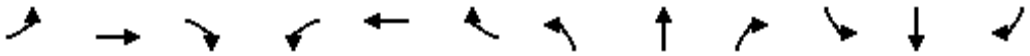
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	292	0	158	15	0	15	0	313	15	15	638	160
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0			12.0		2.0	12.0	12.0
Lane Util. Factor	1.00		1.00		1.00			1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00		1.00		0.98			0.99		1.00	1.00	0.97
Flpb, ped/bikes	1.00		1.00		1.00			1.00		0.96	1.00	1.00
Frt	1.00		0.85		0.93			0.99		1.00	1.00	0.85
Flt Protected	0.95		1.00		0.98			1.00		0.95	1.00	1.00
Satd. Flow (prot)	1605		1232		802			1584		797	1689	1371
Flt Permitted	0.95		1.00		0.98			1.00		0.52	1.00	1.00
Satd. Flow (perm)	1605		1232		802			1584		440	1689	1371
Peak-hour factor, PHF	0.95	0.96	0.95	0.95	0.96	0.95	0.96	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	307	0	166	16	0	16	0	329	16	16	672	168
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	307	0	166	0	32	0	0	345	0	16	672	168
Confl. Peds. (#/hr)	2					2			70	70		3
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	3%	0%	20%	100%	0%	100%	0%	4%	100%	100%	3%	5%
Turn Type	Split		Perm	Split	NA			NA		pm+pt	NA	Perm
Protected Phases	4	4		8	8			2		1	6	
Permitted Phases			4							6		6
Actuated Green, G (s)	24.0		24.0		4.8			46.8		51.2	51.2	51.2
Effective Green, g (s)	24.0		24.0		4.8			46.8		51.2	51.2	51.2
Actuated g/C Ratio	0.24		0.24		0.05			0.47		0.51	0.51	0.51
Clearance Time (s)	4.0		4.0		4.0			12.0		2.0	12.0	12.0
Vehicle Extension (s)	3.0		3.0		3.0			3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	385		295		38			741		233	864	701
v/s Ratio Prot	c0.19				c0.04			0.22		0.00	c0.40	
v/s Ratio Perm			0.13							0.03		0.12
v/c Ratio	0.80		0.56		0.84			0.47		0.07	0.78	0.24
Uniform Delay, d1	35.7		33.4		47.2			18.1		12.2	19.8	13.6
Progression Factor	1.00		1.00		1.00			0.82		0.74	0.89	0.86
Incremental Delay, d2	15.7		7.6		85.4			1.6		0.1	5.5	0.6
Delay (s)	51.4		41.0		132.6			16.5		9.1	23.2	12.3
Level of Service	D		D		F			B		A	C	B
Approach Delay (s)		47.7			132.6			16.5			20.8	
Approach LOS		D			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	29.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



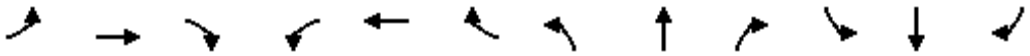
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	1049	115	178	991	47	0	301	99	0	454	99
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			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	0.99		1.00	0.99			0.97			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1651	4525		1635	4404			1406			1567	
Flt Permitted	0.18	1.00		0.11	1.00			1.00			1.00	
Satd. Flow (perm)	319	4525		183	4404			1406			1567	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	105	1104	121	187	1043	49	0	317	104	0	478	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	1225	0	187	1092	0	0	421	0	0	582	0
Confl. Peds. (#/hr)	24		69	69		24			65			25
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	4%	1%	3%	7%	100%	7%	3%	7%	9%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			18
Turn Type	pm+pt	NA		pm+pt	NA			NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	41.1	34.7		47.6	38.2			42.4			42.4	
Effective Green, g (s)	41.1	34.7		47.6	38.2			42.4			42.4	
Actuated g/C Ratio	0.41	0.35		0.48	0.38			0.42			0.42	
Clearance Time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Vehicle Extension (s)	5.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	216	1570		230	1682			596			664	
v/s Ratio Prot	0.03	0.27		c0.08	0.25			0.30			c0.37	
v/s Ratio Perm	0.17			c0.31								
v/c Ratio	0.49	0.78		0.81	0.65			0.71			0.88	
Uniform Delay, d1	19.1	29.2		19.8	25.4			23.7			26.4	
Progression Factor	1.00	1.00		1.00	1.00			0.87			0.63	
Incremental Delay, d2	3.6	2.6		19.3	2.0			6.7			11.0	
Delay (s)	22.6	31.8		39.1	27.4			27.4			27.7	
Level of Service	C	C		D	C			C			C	
Approach Delay (s)		31.1			29.1			27.4			27.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



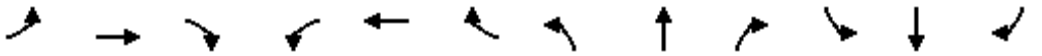
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	116	63	8	166	343	27	0	476	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	14	12	12	11	12	11	11	11	11	11	11
Total Lost time (s)					4.0	4.0	2.0	4.0			4.0	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frpb, ped/bikes					1.00	0.96	1.00	0.99			0.99	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	0.99			0.98	
Flt Protected					0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1630	1472	1496	1608			1571	
Flt Permitted					0.97	1.00	0.35	1.00			1.00	
Satd. Flow (perm)					1630	1472	559	1608			1571	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	122	66	8	175	361	28	0	501	85
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	188	8	175	389	0	0	586	0
Confl. Peds. (#/hr)			10	10		6	22		14			22
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	10%	7%	0%	3%	8%	5%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Actuated Green, G (s)					16.3	16.3	77.7	75.7			63.7	
Effective Green, g (s)					16.3	16.3	77.7	75.7			63.7	
Actuated g/C Ratio					0.16	0.16	0.78	0.76			0.64	
Clearance Time (s)					4.0	4.0	2.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					265	239	528	1217			1000	
v/s Ratio Prot							c0.03	0.24			c0.37	
v/s Ratio Perm					0.12	0.01	0.22					
v/c Ratio					0.71	0.03	0.33	0.32			0.59	
Uniform Delay, d1					39.6	35.2	8.6	3.9			10.5	
Progression Factor					1.00	1.00	0.56	0.45			0.56	
Incremental Delay, d2					8.4	0.1	0.3	0.6			1.3	
Delay (s)					48.0	35.3	5.1	2.4			7.1	
Level of Service					D	D	A	A			A	
Approach Delay (s)		0.0			47.5			3.2			7.1	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	68.6%	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												
Volume (vph)	16	41	44	0	0	39	0	462	10	0	488	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99			0.97			1.00			1.00	
Flpb, ped/bikes	0.99	1.00			1.00			1.00			1.00	
Frt	1.00	0.92			0.86			1.00			1.00	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1694	1606			1396			1064			1431	
Flt Permitted	0.73	1.00			1.00			1.00			1.00	
Satd. Flow (perm)	1302	1606			1396			1064			1431	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.95	0.92	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	17	43	46	0	0	41	0	486	11	0	514	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	17	89	0	0	41	0	0	497	0	0	515	0
Confl. Peds. (#/hr)	4		2			4			5			7
Confl. Bikes (#/hr)						1						2
Heavy Vehicles (%)	0%	0%	4%	2%	2%	8%	2%	6%	0%	14%	7%	0%
Parking (#/hr)								50			4	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	20.0	20.0			20.0			72.0			72.0	
Effective Green, g (s)	20.0	20.0			20.0			72.0			72.0	
Actuated g/C Ratio	0.20	0.20			0.20			0.72			0.72	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	260	321			279			766			1030	
v/s Ratio Prot		c0.06			0.03			c0.47			0.36	
v/s Ratio Perm	0.01											
v/c Ratio	0.07	0.28			0.15			0.65			0.50	
Uniform Delay, d1	32.4	33.9			33.0			7.4			6.1	
Progression Factor	1.00	1.00			1.00			0.85			0.69	
Incremental Delay, d2	0.5	2.1			1.1			3.3			1.4	
Delay (s)	32.9	36.0			34.1			9.6			5.7	
Level of Service	C	D			C			A			A	
Approach Delay (s)		35.5			34.1			9.6			5.7	
Approach LOS		D			C			A			A	

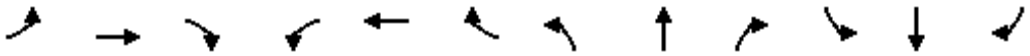
Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	320	93	74	310	108	0	538	36	0	443	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.94		1.00	0.92
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1532	1570	1238	1515	1538	1220		1192	959		1193	984
Flt Permitted	0.33	1.00	1.00	0.35	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	526	1570	1238	560	1538	1220		1192	959		1193	984
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	63	337	98	78	326	114	0	566	38	0	466	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	63	337	98	78	337	103	0	566	38	0	466	38
Confl. Peds. (#/hr)	11		12	12		11			12			17
Confl. Bikes (#/hr)						2			1			
Heavy Vehicles (%)	3%	7%	10%	4%	3%	6%	14%	8%	6%	17%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								32	32		36	36
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	30.0	30.0	30.0	30.0	30.0	30.0		61.0	61.0		61.0	61.0
Effective Green, g (s)	30.0	30.0	30.0	30.0	30.0	30.0		61.0	61.0		61.0	61.0
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30		0.61	0.61		0.61	0.61
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	157	471	371	168	461	366		727	584		727	600
v/s Ratio Prot		0.21			c0.22			c0.47			0.39	
v/s Ratio Perm	0.12		0.08	0.14		0.08			0.04			0.04
v/c Ratio	0.40	0.72	0.26	0.46	0.73	0.28		0.78	0.07		0.64	0.06
Uniform Delay, d1	27.9	31.2	26.6	28.5	31.4	26.8		14.5	7.9		12.5	7.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.66	0.85		0.68	0.68
Incremental Delay, d2	7.5	9.0	1.7	9.0	9.8	1.9		7.3	0.2		3.9	0.2
Delay (s)	35.3	40.2	28.3	37.4	41.2	28.7		16.8	6.9		12.4	5.6
Level of Service	D	D	C	D	D	C		B	A		B	A
Approach Delay (s)		37.2			38.1			16.2			11.9	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

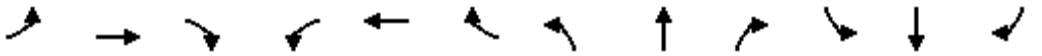
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	4	15	12	16	19	0	554	16	0	476	9
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.95			1.00			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1650			1583			1461			1488	
Flt Permitted		0.87			0.92			1.00			1.00	
Satd. Flow (perm)		1478			1469			1461			1488	
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)	25	4	16	13	17	20	0	583	17	0	501	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	45	0	0	50	0	0	600	0	0	510	0
Confl. Peds. (#/hr)	4					4						1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	5%	7%	0%	19%	5%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		8.9			8.9			82.1			82.1	
Effective Green, g (s)		8.9			8.9			82.1			82.1	
Actuated g/C Ratio		0.09			0.09			0.82			0.82	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		131			130			1199			1221	
v/s Ratio Prot								c0.41			0.34	
v/s Ratio Perm		0.03			c0.03							
v/c Ratio		0.34			0.38			0.50			0.42	
Uniform Delay, d1		42.8			43.0			2.7			2.4	
Progression Factor		1.00			1.00			0.78			0.81	
Incremental Delay, d2		3.3			3.9			1.4			0.9	
Delay (s)		46.1			46.9			3.6			2.9	
Level of Service		D			D			A			A	
Approach Delay (s)		46.1			46.9			3.6			2.9	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

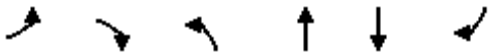
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	217	146	166	500	123	0	432	45	0	494	31
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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		1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1653	3033	1394	1585	3119	1321		1398	1143		1374	1291
Flt Permitted	0.43	1.00	1.00	0.48	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	748	3033	1394	805	3119	1321		1398	1143		1374	1291
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	16	228	154	175	526	129	0	455	47	0	520	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	16	228	154	175	526	129	0	455	47	0	520	33
Confl. Peds. (#/hr)			3	3					4			4
Heavy Vehicles (%)	0%	9%	3%	4%	6%	12%	1%	12%	13%	16%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	25.7	23.3	23.3	36.8	31.4	31.4		57.2	57.2		57.2	57.2
Effective Green, g (s)	25.7	23.3	23.3	36.8	31.4	31.4		57.2	57.2		57.2	57.2
Actuated g/C Ratio	0.26	0.23	0.23	0.37	0.31	0.31		0.57	0.57		0.57	0.57
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	213	706	324	378	979	414		799	653		785	738
v/s Ratio Prot	0.00	0.08		c0.05	c0.17			0.33			c0.38	
v/s Ratio Perm	0.02		0.11	0.12		0.10			0.04			0.03
v/c Ratio	0.08	0.32	0.48	0.46	0.54	0.31		0.57	0.07		0.66	0.04
Uniform Delay, d1	27.9	31.8	33.1	22.6	28.3	26.1		13.6	9.6		14.7	9.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.75	0.68
Incremental Delay, d2	0.2	1.2	4.9	0.9	2.1	2.0		2.9	0.2		2.0	0.0
Delay (s)	28.0	33.0	38.0	23.5	30.4	28.0		16.5	9.8		13.2	6.4
Level of Service	C	C	D	C	C	C		B	A		B	A
Approach Delay (s)		34.7			28.6			15.9			12.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	32	20	0	368	617	42
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	11	11	11	11
Total Lost time (s)	5.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.99			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.95			1.00	0.99	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1556			1187	1652	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1556			1187	1652	
Peak-hour factor, PHF	0.95	0.95	0.96	0.95	0.95	0.95
Adj. Flow (vph)	34	21	0	387	649	44
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	55	0	0	387	693	0
Confl. Peds. (#/hr)	4	1				6
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	5%	0%	7%	4%	7%
Parking (#/hr)				34		
Turn Type	NA			NA	NA	
Protected Phases	4			2 9	6	
Permitted Phases						
Actuated Green, G (s)	11.0			69.0	62.0	
Effective Green, g (s)	11.0			69.0	62.0	
Actuated g/C Ratio	0.12			0.77	0.69	
Clearance Time (s)	5.0				3.0	
Vehicle Extension (s)	8.0				3.0	
Lane Grp Cap (vph)	190			910	1138	
v/s Ratio Prot	c0.04			c0.33	c0.42	
v/s Ratio Perm						
v/c Ratio	0.29			0.43	0.61	
Uniform Delay, d1	35.9			3.6	7.5	
Progression Factor	1.00			0.34	1.00	
Incremental Delay, d2	3.6			0.3	2.4	
Delay (s)	39.5			1.5	9.9	
Level of Service	D			A	A	
Approach Delay (s)	39.5			1.5	9.9	
Approach LOS	D			A	A	

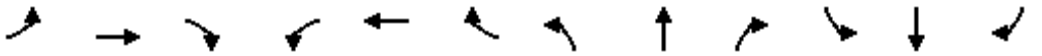
Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	0	22	0	11	5	0	361	1	0	376	17
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	8	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.90			0.96			1.00			0.99	
Flt Protected		0.99			1.00			1.00			1.00	
Satd. Flow (prot)		1599			1507			1491			1476	
Flt Permitted		0.93			1.00			1.00			1.00	
Satd. Flow (perm)		1510			1507			1491			1476	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	8	0	23	0	12	5	0	380	1	0	396	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	31	0	0	17	0	0	381	0	0	414	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	50%	2%	5%	0%	67%	5%	12%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6 13	
Permitted Phases	4			8								
Actuated Green, G (s)		11.0			11.0			62.0			69.0	
Effective Green, g (s)		11.0			11.0			62.0			69.0	
Actuated g/C Ratio		0.12			0.12			0.69			0.77	
Clearance Time (s)		5.0			5.0			3.0				
Vehicle Extension (s)		8.0			8.0			3.0				
Lane Grp Cap (vph)		184			184			1027			1131	
v/s Ratio Prot					0.01			c0.26			c0.28	
v/s Ratio Perm		c0.02										
v/c Ratio		0.17			0.09			0.37			0.37	
Uniform Delay, d1		35.4			35.1			5.9			3.4	
Progression Factor		1.00			1.00			0.58			0.09	
Incremental Delay, d2		1.9			0.9			1.0			0.2	
Delay (s)		37.3			36.0			4.4			0.5	
Level of Service		D			D			A			A	
Approach Delay (s)		37.3			36.0			4.4			0.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		

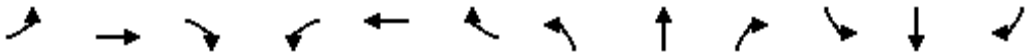
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	190	86	48	320	182	0	259	20	0	389	64
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.97		1.00	0.97		1.00	0.95
Flpb, ped/bikes	1.00	1.00		0.98	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.95		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1590	1515		1510	1600	1252		1259	1023		1221	979
Flt Permitted	0.41	1.00		0.47	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	690	1515		746	1600	1252		1259	1023		1221	979
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	80	200	91	51	337	192	0	273	21	0	409	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	80	291	0	51	337	192	0	273	21	0	409	67
Confl. Peds. (#/hr)	4		15	15		4			4			12
Confl. Bikes (#/hr)			2						2			2
Heavy Vehicles (%)	0%	5%	2%	4%	5%	11%	3%	5%	5%	22%	4%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								28	28		34	34
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	32.0	32.0		32.0	32.0	32.0		49.0	49.0		49.0	49.0
Effective Green, g (s)	32.0	32.0		32.0	32.0	32.0		49.0	49.0		49.0	49.0
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36		0.54	0.54		0.54	0.54
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	245	538		265	568	445		685	556		664	533
v/s Ratio Prot		0.19			c0.21			0.22			c0.33	
v/s Ratio Perm	0.12			0.07		0.15			0.02			0.07
v/c Ratio	0.33	0.54		0.19	0.59	0.43		0.40	0.04		0.62	0.13
Uniform Delay, d1	21.1	23.1		20.1	23.7	22.1		11.9	9.5		14.1	10.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.85	0.98		0.63	0.44
Incremental Delay, d2	3.5	3.9		1.6	4.5	3.0		1.7	0.1		4.1	0.5
Delay (s)	24.7	27.0		21.7	28.2	25.1		11.8	9.5		12.9	4.9
Level of Service	C	C		C	C	C		B	A		B	A
Approach Delay (s)		26.5			26.6			11.6			11.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

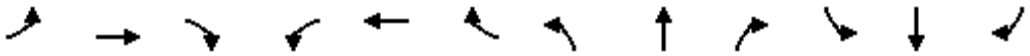
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	7	22	28	34	20	0	283	24	0	411	37
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.93			0.97			0.99			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1601			1621			1340			1133	
Flt Permitted		0.92			0.87			1.00			1.00	
Satd. Flow (perm)		1491			1435			1340			1133	
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)	13	7	23	29	36	21	0	298	25	0	433	39
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	43	0	0	86	0	0	323	0	0	472	0
Confl. Peds. (#/hr)	7		3	3		7			11			23
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	0%	0%	0%	7%	0%	6%	14%	5%	4%	10%	4%	5%
Parking (#/hr)								16			42	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		9.8			9.8			71.2			71.2	
Effective Green, g (s)		9.8			9.8			71.2			71.2	
Actuated g/C Ratio		0.11			0.11			0.79			0.79	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		162			156			1060			896	
v/s Ratio Prot								0.24			c0.42	
v/s Ratio Perm		0.03			c0.06							
v/c Ratio		0.27			0.55			0.30			0.53	
Uniform Delay, d1		36.8			38.0			2.6			3.4	
Progression Factor		1.00			1.00			0.58			0.83	
Incremental Delay, d2		1.8			7.0			0.7			1.8	
Delay (s)		38.6			45.0			2.2			4.7	
Level of Service		D			D			A			A	
Approach Delay (s)		38.6			45.0			2.2			4.7	
Approach LOS		D			D			A			A	

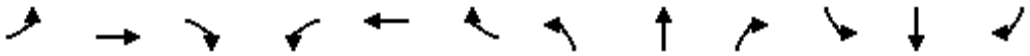
Intersection Summary			
HCM 2000 Control Delay	9.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	30	9	18	8	36	0	265	19	0	413	34
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.92			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1711			1586			1148			1167	
Flt Permitted		0.88			0.92			1.00			1.00	
Satd. Flow (perm)		1539			1483			1148			1167	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	29	32	9	19	8	38	0	279	20	0	435	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	70	0	0	65	0	0	299	0	0	471	0
Confl. Peds. (#/hr)	11		9	9		11			12			6
Confl. Bikes (#/hr)						1			2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	5%	0%	0%	3%	3%
Parking (#/hr)								40			40	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			58.0			58.0	
Effective Green, g (s)		23.0			23.0			58.0			58.0	
Actuated g/C Ratio		0.26			0.26			0.64			0.64	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		393			378			739			752	
v/s Ratio Prot								0.26			c0.40	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.18			0.17			0.40			0.63	
Uniform Delay, d1		26.1			26.1			7.7			9.5	
Progression Factor		1.00			1.00			0.76			0.48	
Incremental Delay, d2		1.0			1.0			1.6			3.5	
Delay (s)		27.1			27.1			7.4			8.0	
Level of Service		C			C			A			A	
Approach Delay (s)		27.1			27.1			7.4			8.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.8%	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												
Volume (vph)	36	78	49	12	33	51	0	234	45	0	379	50
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.95			0.97			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.96			0.93			0.98			0.98	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1648			1552			1129			1087	
Flt Permitted		0.92			0.96			1.00			1.00	
Satd. Flow (perm)		1533			1498			1129			1087	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	38	82	52	13	35	54	0	246	47	0	399	53
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	172	0	0	102	0	0	293	0	0	452	0
Confl. Peds. (#/hr)	37		9	9		37			39			14
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%	0%	5%	0%	2%	3%	4%
Parking (#/hr)								38			48	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.0			21.0			61.0			61.0	
Effective Green, g (s)		21.0			21.0			61.0			61.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		357			349			765			736	
v/s Ratio Prot								0.26			c0.42	
v/s Ratio Perm		c0.11			0.07							
v/c Ratio		0.48			0.29			0.38			0.61	
Uniform Delay, d1		29.8			28.4			6.3			8.0	
Progression Factor		1.00			1.00			0.66			0.20	
Incremental Delay, d2		4.6			2.1			1.3			3.1	
Delay (s)		34.4			30.5			5.5			4.7	
Level of Service		C			C			A			A	
Approach Delay (s)		34.4			30.5			5.5			4.7	
Approach LOS		C			C			A			A	

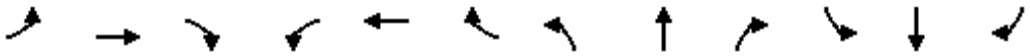
Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations												
Volume (vph)	72	279	28	138	405	91	6	230	0	64	325	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	10	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.97			1.00	0.88		1.00	0.95
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.97			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1478	2856		1540	2778			1041	1272		1506	1191
Flt Permitted	0.40	1.00		0.50	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	627	2856		802	2778			1041	1272		1506	1191
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)	76	294	29	145	426	96	6	242	0	67	342	58
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	76	323	0	145	528	0	0	242	67	0	342	58
Confl. Peds. (#/hr)			53	53		74				75		25
Confl. Bikes (#/hr)						4				2		
Heavy Vehicles (%)	8%	9%	11%	1%	9%	6%	0%	7%	0%	2%	4%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								52			0	0
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	34.4	29.6		38.8	31.8			41.4	41.4		41.4	41.4
Effective Green, g (s)	34.4	29.6		38.8	31.8			41.4	41.4		41.4	41.4
Actuated g/C Ratio	0.38	0.33		0.43	0.35			0.46	0.46		0.46	0.46
Clearance Time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	285	939		403	981			478	585		692	547
v/s Ratio Prot	0.01	0.11		c0.03	c0.19			c0.23			0.23	
v/s Ratio Perm	0.09			0.13					0.05			0.05
v/c Ratio	0.27	0.34		0.36	0.54			0.51	0.11		0.49	0.11
Uniform Delay, d1	18.2	22.9		16.2	23.2			17.1	13.9		17.0	13.8
Progression Factor	1.00	1.00		1.00	1.00			0.53	0.61		0.64	0.61
Incremental Delay, d2	0.5	1.0		0.6	2.1			3.5	0.4		2.0	0.3
Delay (s)	18.7	23.9		16.7	25.4			12.6	8.9		12.9	8.7
Level of Service	B	C		B	C			B	A		B	A
Approach Delay (s)		22.9			23.5			11.8			12.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SWR2
Lane Configurations	
Volume (vph)	25
Ideal Flow (vphpl)	1800
Lane Width	12
Total Lost time (s)	5.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1557
Flt Permitted	1.00
Satd. Flow (perm)	1557
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	26
RTOR Reduction (vph)	0
Lane Group Flow (vph)	26
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	31.8
Effective Green, g (s)	31.8
Actuated g/C Ratio	0.35
Clearance Time (s)	5.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	550
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.05
Uniform Delay, d1	19.1
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	19.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

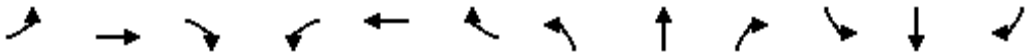
Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	22	44	18	0	322	0	0	617	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.97			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1642			1205			1073	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1642			1205			1073	
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.95	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	23	46	19	0	339	0	0	649	62
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	88	0	0	339	0	0	711	0
Confl. Peds. (#/hr)			20	20		21			10			27
Heavy Vehicles (%)	0%	0%	0%	0%	5%	0%	9%	4%	0%	0%	3%	5%
Parking (#/hr)								36			50	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			58.0			58.0	
Effective Green, g (s)					23.0			58.0			58.0	
Actuated g/C Ratio					0.26			0.64			0.64	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					419			776			691	
v/s Ratio Prot								0.28			c0.66	
v/s Ratio Perm					0.05							
v/c Ratio					0.21			0.44			1.03	
Uniform Delay, d1					26.4			7.9			16.0	
Progression Factor					1.00			1.08			0.76	
Incremental Delay, d2					1.1			1.7			41.2	
Delay (s)					27.5			10.2			53.4	
Level of Service					C			B			D	
Approach Delay (s)		0.0			27.5			10.2			53.4	
Approach LOS		A			C			B			D	

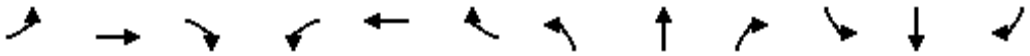
Intersection Summary			
HCM 2000 Control Delay	38.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



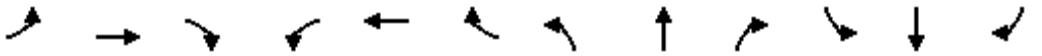
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	74	24	12	29	24	0	232	34	0	411	23
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			0.99			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.95			0.98			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1706			1641			1108			1086	
Flt Permitted		0.89			0.94			1.00			1.00	
Satd. Flow (perm)		1549			1562			1108			1086	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	46	78	25	13	31	25	0	244	36	0	433	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	149	0	0	69	0	0	280	0	0	457	0
Confl. Peds. (#/hr)	17					17			18			26
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%	0%	4%	3%	0%	3%	0%
Parking (#/hr)								44			50	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			57.0			57.0	
Effective Green, g (s)		24.0			24.0			57.0			57.0	
Actuated g/C Ratio		0.27			0.27			0.63			0.63	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		413			416			701			687	
v/s Ratio Prot								0.25			c0.42	
v/s Ratio Perm		c0.10			0.04							
v/c Ratio		0.36			0.17			0.40			0.67	
Uniform Delay, d1		26.8			25.3			8.1			10.5	
Progression Factor		1.00			1.00			0.76			0.10	
Incremental Delay, d2		2.4			0.9			1.6			0.5	
Delay (s)		29.2			26.2			7.8			1.5	
Level of Service		C			C			A			A	
Approach Delay (s)		29.2			26.2			7.8			1.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.9%	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												
Volume (vph)	20	18	16	14	10	37	0	240	20	0	401	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.97			0.97			0.99			0.99	
Flpb, ped/bikes		0.99			0.98			1.00			1.00	
Frt		0.96			0.92			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1633			1565			1112			1473	
Flt Permitted		0.91			0.94			1.00			1.00	
Satd. Flow (perm)		1505			1496			1112			1473	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	21	19	17	15	11	39	0	253	21	0	422	43
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	57	0	0	65	0	0	274	0	0	465	0
Confl. Peds. (#/hr)	13		40	40		13			25			42
Confl. Bikes (#/hr)			1						2			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	4%	0%
Parking (#/hr)								44			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		25.0			25.0			56.0			56.0	
Effective Green, g (s)		25.0			25.0			56.0			56.0	
Actuated g/C Ratio		0.28			0.28			0.62			0.62	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		418			415			691			916	
v/s Ratio Prot								0.25			c0.32	
v/s Ratio Perm		0.04			c0.04							
v/c Ratio		0.14			0.16			0.40			0.51	
Uniform Delay, d1		24.4			24.5			8.5			9.4	
Progression Factor		1.00			1.00			1.73			0.36	
Incremental Delay, d2		0.7			0.8			1.6			1.6	
Delay (s)		25.1			25.3			16.3			4.9	
Level of Service		C			C			B			A	
Approach Delay (s)		25.1			25.3			16.3			4.9	
Approach LOS		C			C			B			A	

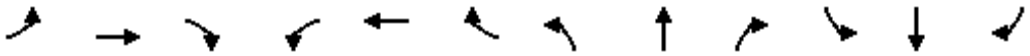
Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	219	46	54	298	44	0	244	19	0	347	54
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.90		1.00	0.92		1.00	0.94
Flpb, ped/bikes	0.96	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1473	1631	1314	1476	1541	1259		1143	888		1088	879
Flt Permitted	0.43	1.00	1.00	0.54	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	670	1631	1314	842	1541	1259		1143	888		1088	879
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)	97	231	48	57	314	46	0	257	20	0	365	57
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	97	231	48	57	314	46	0	257	20	0	365	57
Confl. Peds. (#/hr)	29		21	21		29			20			13
Confl. Bikes (#/hr)			2			1						1
Heavy Vehicles (%)	4%	3%	0%	4%	9%	2%	3%	5%	5%	8%	4%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								42	42		50	50
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0	31.0		50.0	50.0		50.0	50.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0	31.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.56	0.56		0.56	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	230	561	452	290	530	433		635	493		604	488
v/s Ratio Prot		0.14			c0.20			0.22			c0.34	
v/s Ratio Perm	0.14		0.04	0.07		0.04			0.02			0.06
v/c Ratio	0.42	0.41	0.11	0.20	0.59	0.11		0.40	0.04		0.60	0.12
Uniform Delay, d1	22.6	22.5	20.1	20.7	24.3	20.1		11.5	9.1		13.4	9.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.41		0.35	0.44
Incremental Delay, d2	5.6	2.2	0.5	1.5	4.8	0.5		1.8	0.1		4.0	0.4
Delay (s)	28.2	24.8	20.5	22.3	29.1	20.6		5.6	3.9		8.6	4.6
Level of Service	C	C	C	C	C	C		A	A		A	A
Approach Delay (s)		25.1			27.2			5.5			8.1	
Approach LOS		C			C			A			A	

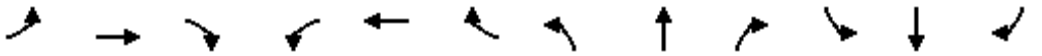
Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	16	10	13	0	282	3	0	421	19
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			1.00	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.95			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1607			1202			1106	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1607			1202			1106	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	0	0	0	17	11	14	0	297	3	0	443	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	42	0	0	300	0	0	463	0
Confl. Peds. (#/hr)			41	41		12			30			4
Confl. Bikes (#/hr)			4						3			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	20%	3%	5%
Parking (#/hr)								36			48	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			58.0			58.0	
Effective Green, g (s)					23.0			58.0			58.0	
Actuated g/C Ratio					0.26			0.64			0.64	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					410			774			712	
v/s Ratio Prot								0.25			c0.42	
v/s Ratio Perm					0.03							
v/c Ratio					0.10			0.39			0.65	
Uniform Delay, d1					25.6			7.6			9.8	
Progression Factor					1.00			0.58			1.03	
Incremental Delay, d2					0.5			1.4			4.0	
Delay (s)					26.1			5.8			14.1	
Level of Service					C			A			B	
Approach Delay (s)		0.0			26.1			5.8			14.1	
Approach LOS		A			C			A			B	

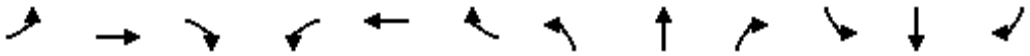
Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	156	864	63	0	253	0	0	340	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	9	10	10	11	11	11	11	11	11
Total Lost time (s)				5.0	5.0	5.0		3.0			3.0	3.0
Lane Util. Factor				1.00	0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes				1.00	1.00	0.92		1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00	1.00		1.00			1.00	1.00
Frt				1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				1494	3129	1288		1464			1188	1006
Flt Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				1494	3129	1288		1464			1188	1006
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.95	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	164	909	66	0	266	0	0	358	93
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	164	909	66	0	266	0	0	358	93
Confl. Peds. (#/hr)						41			29			19
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	3%	2%	2%	4%	7%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								0			38	38
Turn Type				Perm	NA	Perm		NA			NA	Perm
Protected Phases					8			2 5			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				31.0	31.0	31.0		36.0			42.0	42.0
Effective Green, g (s)				31.0	31.0	31.0		36.0			42.0	42.0
Actuated g/C Ratio				0.34	0.34	0.34		0.40			0.47	0.47
Clearance Time (s)				5.0	5.0	5.0					3.0	3.0
Lane Grp Cap (vph)				514	1077	443		585			554	469
v/s Ratio Prot					c0.29			c0.18			c0.30	
v/s Ratio Perm				0.11		0.05						0.09
v/c Ratio				0.32	0.84	0.15		0.45			0.65	0.20
Uniform Delay, d1				21.7	27.3	20.4		19.8			18.3	14.1
Progression Factor				1.00	1.00	1.00		0.53			0.65	0.61
Incremental Delay, d2				1.6	8.1	0.7		2.2			4.8	0.8
Delay (s)				23.4	35.4	21.1		12.8			16.7	9.4
Level of Service				C	D	C		B			B	A
Approach Delay (s)		0.0			32.8			12.8			15.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

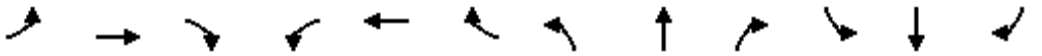


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	709	115	0	0	0	0	256	124	0	468	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					3.0	3.0		5.0	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00	0.93					1.00	0.98		1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00		1.00	
Frt	1.00	1.00	0.85					1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1494	3099	1283					1259	1102		1506	
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1494	3099	1283					1259	1102		1506	
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	73	746	121	0	0	0	0	269	131	0	493	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	73	746	121	0	0	0	0	269	131	0	493	0
Confl. Peds. (#/hr)			31						8			23
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	3%	3%	4%	0%	0%	0%	0%	5%	0%	4%	4%	0%
Parking (#/hr)								28	28		0	
Turn Type	Perm	NA	Perm					NA	Perm		NA	
Protected Phases		4						2			1 6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	31.0	31.0	31.0					32.0	32.0		49.0	
Effective Green, g (s)	31.0	31.0	31.0					32.0	32.0		49.0	
Actuated g/C Ratio	0.34	0.34	0.34					0.36	0.36		0.54	
Clearance Time (s)	5.0	5.0	5.0					3.0	3.0			
Lane Grp Cap (vph)	514	1067	441					447	391		819	
v/s Ratio Prot		c0.24						0.21			c0.33	
v/s Ratio Perm	0.05		0.09						0.12			
v/c Ratio	0.14	0.70	0.27					0.60	0.34		0.60	
Uniform Delay, d1	20.3	25.5	21.4					23.8	21.2		13.9	
Progression Factor	1.00	1.00	1.00					0.69	0.70		0.78	
Incremental Delay, d2	0.6	3.8	1.5					5.5	2.1		2.8	
Delay (s)	20.9	29.3	22.9					21.9	17.0		13.6	
Level of Service	C	C	C					C	B		B	
Approach Delay (s)		27.8			0.0			20.3			13.6	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.0%	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												
Volume (vph)	16	18	47	0	0	0	0	328	15	0	447	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.97						1.00			1.00	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.92						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1569						1172			1104	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1569						1172			1104	
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)	17	19	49	0	0	0	0	345	16	0	471	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	85	0	0	0	0	0	361	0	0	471	0
Confl. Peds. (#/hr)	42		16			42			22			29
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Parking (#/hr)								40			48	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						58.0			58.0	
Effective Green, g (s)		23.0						58.0			58.0	
Actuated g/C Ratio		0.26						0.64			0.64	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		400						755			711	
v/s Ratio Prot								0.31			c0.43	
v/s Ratio Perm		0.05										
v/c Ratio		0.21						0.48			0.66	
Uniform Delay, d1		26.4						8.2			9.9	
Progression Factor		1.00						0.91			0.64	
Incremental Delay, d2		1.2						2.0			4.1	
Delay (s)		27.6						9.5			10.5	
Level of Service		C						A			B	
Approach Delay (s)		27.6			0.0			9.5			10.5	
Approach LOS		C			A			A			B	

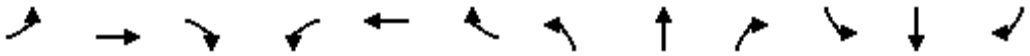
Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	242	62	111	404	36	0	292	40	0	516	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.65	1.00	1.00	0.97		1.00	1.00		1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	0.91	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1594	1556	883	1457	1600	1340		1288	1125		1506	1220
Flt Permitted	0.33	1.00	1.00	0.48	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	553	1556	883	743	1600	1340		1288	1125		1506	1220
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	84	255	65	117	425	38	0	307	42	0	543	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	255	65	117	425	38	0	307	42	0	543	37
Confl. Peds. (#/hr)	5		120	120		5						19
Heavy Vehicles (%)	0%	8%	5%	0%	5%	3%	2%	4%	0%	7%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	35.0	31.0	31.0	38.2	32.6	32.6		41.4	41.4		41.4	41.4
Effective Green, g (s)	35.0	31.0	31.0	38.2	32.6	32.6		41.4	41.4		41.4	41.4
Actuated g/C Ratio	0.39	0.34	0.34	0.42	0.36	0.36		0.46	0.46		0.46	0.46
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	261	535	304	359	579	485		592	517		692	561
v/s Ratio Prot	0.01	0.16		c0.02	c0.27			0.24			c0.36	
v/s Ratio Perm	0.11		0.07	0.12		0.03			0.04			0.03
v/c Ratio	0.32	0.48	0.21	0.33	0.73	0.08		0.52	0.08		0.78	0.07
Uniform Delay, d1	18.5	23.1	20.9	16.5	24.9	18.8		17.2	13.6		20.5	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.96	0.86		0.86	1.16
Incremental Delay, d2	0.7	3.0	1.6	0.5	8.0	0.3		3.0	0.3		7.5	0.2
Delay (s)	19.2	26.2	22.5	17.0	33.0	19.2		19.6	12.0		25.2	15.9
Level of Service	B	C	C	B	C	B		B	B		C	B
Approach Delay (s)		24.1			28.8			18.7			24.6	
Approach LOS		C			C			B			C	

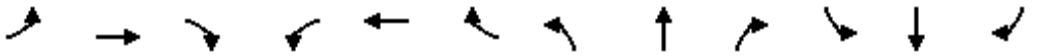
Intersection Summary			
HCM 2000 Control Delay	24.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	24	50	0	0	0	0	309	28	0	553	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.94						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1808						1235			1064	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1808						1235			1064	
Peak-hour factor, PHF	0.95	0.95	0.95	0.99	0.99	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	33	25	53	0	0	0	0	325	29	0	582	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	0	0	0	354	0	0	582	0
Confl. Peds. (#/hr)	10		16			10			38			28
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	2%	0%	14%	3%	0%
Parking (#/hr)								32			54	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						58.0			58.0	
Effective Green, g (s)		23.0						58.0			58.0	
Actuated g/C Ratio		0.26						0.64			0.64	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		462						795			685	
v/s Ratio Prot								0.29			c0.55	
v/s Ratio Perm		0.06										
v/c Ratio		0.24						0.45			0.85	
Uniform Delay, d1		26.6						8.0			12.6	
Progression Factor		1.00						1.00			0.54	
Incremental Delay, d2		1.2						1.8			9.8	
Delay (s)		27.8						9.8			16.7	
Level of Service		C						A			B	
Approach Delay (s)		27.8			0.0			9.8			16.7	
Approach LOS		C			A			A			B	

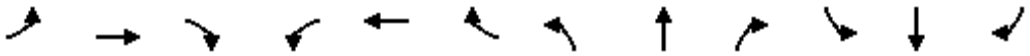
Intersection Summary			
HCM 2000 Control Delay	15.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	400	90	112	481	48	0	317	44	0	615	78
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	10	10	10	10	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
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	0.87	1.00	0.99			1.00	0.62		1.00	0.64
Flpb, ped/bikes	0.96	1.00	1.00	0.95	1.00			1.00	1.00		1.00	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			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1503	1615	1236	1517	1591			1673	782		1673	924
Flt Permitted	0.25	1.00	1.00	0.38	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	391	1615	1236	601	1591			1673	782		1673	924
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	58	421	95	118	506	51	0	334	46	0	647	82
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	58	421	95	118	557	0	0	334	46	0	647	82
Confl. Peds. (#/hr)	86		72	72		86			129			122
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	9%	4%	1%	0%	3%	0%	5%	4%	5%	2%	4%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0			
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	39.0	39.0	39.0	39.0	39.0			44.0	44.0		44.0	44.0
Effective Green, g (s)	39.0	39.0	39.0	39.0	39.0			44.0	44.0		44.0	44.0
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43			0.49	0.49		0.49	0.49
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	169	699	535	260	689			817	382		817	451
v/s Ratio Prot		0.26			c0.35			0.20			c0.39	
v/s Ratio Perm	0.15		0.08	0.20					0.06			0.09
v/c Ratio	0.34	0.60	0.18	0.45	0.81			0.41	0.12		0.79	0.18
Uniform Delay, d1	17.0	19.6	15.7	18.0	22.2			14.7	12.5		19.2	12.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.73	0.88		0.62	0.52
Incremental Delay, d2	5.5	3.8	0.7	5.6	9.9			1.5	0.6		6.0	0.7
Delay (s)	22.4	23.4	16.4	23.6	32.1			12.2	11.6		17.9	7.4
Level of Service	C	C	B	C	C			B	B		B	A
Approach Delay (s)		22.1			30.6			12.2			16.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

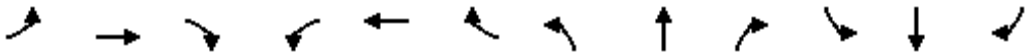
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	22	27	0	352	0	0	494	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1847			1436			1201	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1847			1436			1201	
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)	0	0	0	13	23	28	0	371	0	0	520	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	64	0	0	371	0	0	545	0
Confl. Peds. (#/hr)			6	6		5			41			42
Confl. Bikes (#/hr)			1									3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%
Parking (#/hr)								10			36	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					7.8			73.2			73.2	
Effective Green, g (s)					7.8			73.2			73.2	
Actuated g/C Ratio					0.09			0.81			0.81	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					5.0			3.0			3.0	
Lane Grp Cap (vph)					160			1167			976	
v/s Ratio Prot								0.26			c0.45	
v/s Ratio Perm					0.03							
v/c Ratio					0.40			0.32			0.56	
Uniform Delay, d1					38.9			2.1			2.9	
Progression Factor					1.00			0.54			0.90	
Incremental Delay, d2					3.4			0.6			1.7	
Delay (s)					42.3			1.7			4.3	
Level of Service					D			A			A	
Approach Delay (s)		0.0			42.3			1.7			4.3	
Approach LOS		A			D			A			A	

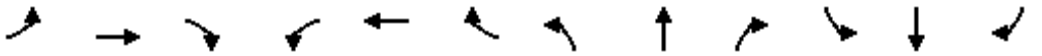
Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



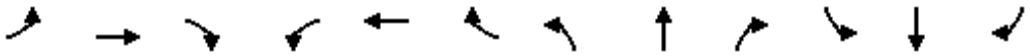
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	340	92	112	387	30	0	345	30	0	462	32
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	9	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	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	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.95		0.99			0.99	
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1531	1647	1300	1531	1680	1351		1180			1129	
Flt Permitted	0.35	1.00	1.00	0.35	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	567	1647	1300	557	1680	1351		1180			1129	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	51	358	97	118	407	32	0	363	32	0	486	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	51	358	97	118	407	32	0	395	0	0	520	0
Confl. Peds. (#/hr)	21		22	22		21			32			32
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%	0%	3%	0%	10%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		44	44
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	33.2	30.2	30.2	37.2	32.2	32.2		41.8			41.8	
Effective Green, g (s)	33.2	30.2	30.2	37.2	32.2	32.2		41.8			41.8	
Actuated g/C Ratio	0.37	0.34	0.34	0.41	0.36	0.36		0.46			0.46	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	241	552	436	284	601	483		548			524	
v/s Ratio Prot	0.01	0.22		c0.02	c0.24			0.33			c0.46	
v/s Ratio Perm	0.07		0.07	0.15		0.02						
v/c Ratio	0.21	0.65	0.22	0.42	0.68	0.07		0.72			0.99	
Uniform Delay, d1	19.1	25.4	21.5	17.7	24.5	19.0		19.4			23.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.97			0.63	
Incremental Delay, d2	0.4	5.8	1.2	1.0	6.0	0.3		7.5			34.9	
Delay (s)	19.6	31.2	22.6	18.7	30.5	19.3		26.3			49.9	
Level of Service	B	C	C	B	C	B		C			D	
Approach Delay (s)		28.4			27.4			26.3			49.9	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



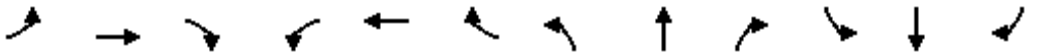
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	291	52	64	292	34	0	278	58	0	492	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			1.00	0.81		1.00	0.91		1.00	0.84
Flpb, ped/bikes		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Frt		0.98			1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3037			1642	1164		1149	1342		1037	1229
Flt Permitted		0.81			0.85	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		2461			1414	1164		1149	1342		1037	1229
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)	44	306	55	67	307	36	0	293	61	0	518	75
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	405	0	0	374	36	0	293	61	0	518	75
Confl. Peds. (#/hr)	91		48	48		91			52			54
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	0%	3%	10%	0%	5%	3%	6%	3%	0%	4%	4%	1%
Parking (#/hr)								44			56	
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		29.0			29.0	29.0		52.0	52.0		52.0	52.0
Effective Green, g (s)		29.0			29.0	29.0		52.0	52.0		52.0	52.0
Actuated g/C Ratio		0.32			0.32	0.32		0.58	0.58		0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		792			455	375		663	775		599	710
v/s Ratio Prot								0.26			c0.50	
v/s Ratio Perm		0.16			c0.26	0.03			0.05			0.06
v/c Ratio		0.51			0.82	0.10		0.44	0.08		0.86	0.11
Uniform Delay, d1		24.8			28.1	21.3		10.8	8.4		16.0	8.5
Progression Factor		1.00			1.00	1.00		1.21	1.08		0.65	0.54
Incremental Delay, d2		2.4			15.3	0.5		2.0	0.2		11.4	0.2
Delay (s)		27.1			43.5	21.8		15.0	9.3		21.8	4.8
Level of Service		C			D	C		B	A		C	A
Approach Delay (s)		27.1			41.6			14.0			19.6	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.0%	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												
Volume (vph)	61	337	78	107	368	84	0	319	15	0	537	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.93	1.00	1.00	0.92		1.00			0.99	
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1537	1647	1324	1551	1663	1294		1424			1494	
Flt Permitted	0.31	1.00	1.00	0.36	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	506	1647	1324	580	1663	1294		1424			1494	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	64	355	82	113	387	88	0	336	16	0	565	55
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	64	355	82	113	387	88	0	352	0	0	620	0
Confl. Peds. (#/hr)	38		31	31		38			20			29
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	2%	0%	2%	1%	1%	8%	3%	0%	7%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	32.6	28.6	28.6	32.6	28.6	28.6		45.4			45.4	
Effective Green, g (s)	32.6	28.6	28.6	32.6	28.6	28.6		45.4			45.4	
Actuated g/C Ratio	0.36	0.32	0.32	0.36	0.32	0.32		0.50			0.50	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	229	523	420	253	528	411		718			753	
v/s Ratio Prot	0.01	0.22		c0.02	c0.23			0.25			c0.42	
v/s Ratio Perm	0.09		0.06	0.14		0.07						
v/c Ratio	0.28	0.68	0.20	0.45	0.73	0.21		0.49			0.82	
Uniform Delay, d1	19.9	26.7	22.3	21.2	27.3	22.5		14.7			18.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			0.60	
Incremental Delay, d2	0.7	6.9	1.0	1.3	8.7	1.2		2.4			5.6	
Delay (s)	20.6	33.6	23.4	22.5	36.0	23.7		17.1			17.0	
Level of Service	C	C	C	C	D	C		B			B	
Approach Delay (s)		30.3			31.6			17.1			17.0	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



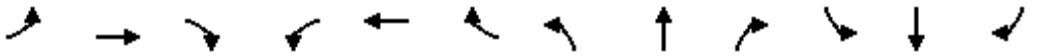
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	157	60	49	339	88	0	260	21	0	557	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.91		1.00	0.96		1.00	0.94		1.00	0.88
Flpb, ped/bikes		1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		1617	1265		1603	1373		1520	1385		1520	1204
Flt Permitted		0.83	1.00		0.94	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		1352	1265		1509	1373		1520	1385		1520	1204
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	43	165	63	52	357	93	0	274	22	0	586	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	208	63	0	409	93	0	274	22	0	586	38
Confl. Peds. (#/hr)	12		44	44		12			19			44
Heavy Vehicles (%)	0%	8%	3%	0%	4%	0%	9%	3%	0%	5%	3%	8%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		28.0	28.0		28.0	28.0		38.0	38.0		38.0	38.0
Effective Green, g (s)		28.0	28.0		28.0	28.0		38.0	38.0		38.0	38.0
Actuated g/C Ratio		0.37	0.37		0.37	0.37		0.51	0.51		0.51	0.51
Clearance Time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		504	472		563	512		770	701		770	610
v/s Ratio Prot								0.18			c0.39	
v/s Ratio Perm		0.15	0.05		c0.27	0.07			0.02			0.03
v/c Ratio		0.41	0.13		0.73	0.18		0.36	0.03		0.76	0.06
Uniform Delay, d1		17.4	15.5		20.2	15.8		11.1	9.3		14.9	9.4
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.04		1.00	1.00
Incremental Delay, d2		2.5	0.6		8.0	0.8		1.2	0.1		7.0	0.2
Delay (s)		19.9	16.1		28.2	16.6		12.3	9.8		21.8	9.6
Level of Service		B	B		C	B		B	A		C	A
Approach Delay (s)		19.0			26.0			12.1			21.1	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.3%	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												
Volume (vph)	64	290	37	88	313	82	0	210	35	0	505	32
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.97			0.98			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		3044			3014			1251			1177	
Flt Permitted		0.78			0.77			1.00			1.00	
Satd. Flow (perm)		2394			2342			1251			1177	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	67	305	39	93	329	86	0	221	37	0	532	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	411	0	0	508	0	0	258	0	0	566	0
Confl. Peds. (#/hr)	6		20	20		6			5			8
Confl. Bikes (#/hr)												3
Heavy Vehicles (%)	3%	2%	0%	0%	2%	1%	0%	4%	0%	7%	4%	3%
Parking (#/hr)								28			38	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			42.0			42.0	
Effective Green, g (s)		24.0			24.0			42.0			42.0	
Actuated g/C Ratio		0.32			0.32			0.56			0.56	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		766			749			700			659	
v/s Ratio Prot								0.21			c0.48	
v/s Ratio Perm		0.17			c0.22							
v/c Ratio		0.54			0.68			0.37			0.86	
Uniform Delay, d1		20.9			22.1			9.1			14.0	
Progression Factor		1.00			1.00			1.00			0.42	
Incremental Delay, d2		2.7			4.9			1.5			10.7	
Delay (s)		23.6			27.0			10.6			16.6	
Level of Service		C			C			B			B	
Approach Delay (s)		23.6			27.0			10.6			16.6	
Approach LOS		C			C			B			B	

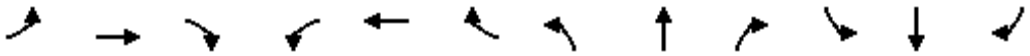
Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	451	30	64	479	73	0	189	28	0	553	64
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	9	9	10	9	11	11	11	11	11	11
Total Lost time (s)	5.0	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	1.00
Frpb, ped/bikes	1.00	1.00	0.81	1.00	1.00	0.89		1.00	0.80		1.00	0.91
Flpb, ped/bikes	0.97	1.00	1.00	0.94	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1493	1585	1118	1447	1600	1210		1188	834		1166	900
Flt Permitted	0.19	1.00	1.00	0.22	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	295	1585	1118	338	1600	1210		1188	834		1166	900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	101	475	32	67	504	77	0	199	29	0	582	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	101	475	32	67	504	77	0	199	29	0	582	67
Confl. Peds. (#/hr)	54		99	99		54			68			27
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	6%	0%	0%	5%	1%	7%	4%	0%	10%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		42	42
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.0	34.0	34.0	34.0	34.0	34.0		50.0	50.0		50.0	50.0
Effective Green, g (s)	34.0	34.0	34.0	34.0	34.0	34.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.50	0.50		0.50	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	100	538	380	114	544	411		594	417		583	450
v/s Ratio Prot		0.30			0.32			0.17			c0.50	
v/s Ratio Perm	c0.34		0.03	0.20		0.06			0.03			0.07
v/c Ratio	1.01	0.88	0.08	0.59	0.93	0.19		0.34	0.07		1.00	0.15
Uniform Delay, d1	33.0	31.1	22.4	27.2	31.8	23.3		15.0	13.0		25.0	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.51	1.54		1.00	1.00
Incremental Delay, d2	92.7	18.6	0.4	20.3	24.1	1.0		1.4	0.3		36.9	0.7
Delay (s)	125.7	49.8	22.9	47.5	55.9	24.3		24.1	20.2		61.8	14.2
Level of Service	F	D	C	D	E	C		C	C		E	B
Approach Delay (s)		61.0			51.3			23.6			56.9	
Approach LOS		E			D			C			E	

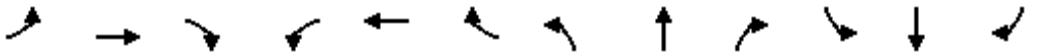
Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	75.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



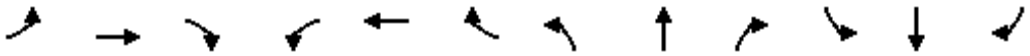
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	48	72	50	0	331	0	0	622	119
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)					5.0	5.0		4.0			4.0	
Lane Util. Factor					1.00	1.00		1.00			1.00	
Frpb, ped/bikes					1.00	0.93		1.00			0.97	
Flpb, ped/bikes					0.97	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.98	
Flt Protected					0.98	1.00		1.00			1.00	
Satd. Flow (prot)					1602	1297		1160			1007	
Flt Permitted					0.98	1.00		1.00			1.00	
Satd. Flow (perm)					1602	1297		1160			1007	
Peak-hour factor, PHF	0.94	0.94	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	0	0	0	51	76	53	0	348	0	0	655	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	127	53	0	348	0	0	780	0
Confl. Peds. (#/hr)			31	31		25			62			51
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	2%	0%	0%	3%	2%
Parking (#/hr)								44			54	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					23.0	23.0		68.0			68.0	
Effective Green, g (s)					23.0	23.0		68.0			68.0	
Actuated g/C Ratio					0.23	0.23		0.68			0.68	
Clearance Time (s)					5.0	5.0		4.0			4.0	
Lane Grp Cap (vph)					368	298		788			684	
v/s Ratio Prot								0.30			c0.77	
v/s Ratio Perm					0.08	0.04						
v/c Ratio					0.35	0.18		0.44			1.14	
Uniform Delay, d1					32.2	30.9		7.3			16.0	
Progression Factor					1.00	1.00		0.62			0.45	
Incremental Delay, d2					2.6	1.3		1.7			73.7	
Delay (s)					34.8	32.2		6.2			80.9	
Level of Service					C	C		A			F	
Approach Delay (s)		0.0			34.0			6.2			80.9	
Approach LOS		A			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.5%	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												
Volume (vph)	75	359	105	95	355	66	0	318	52	0	627	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.89	1.00	0.99			1.00	0.80		1.00	0.92
Flpb, ped/bikes	0.98	1.00	1.00	0.96	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1520	1631	1248	1534	3087			1327	904		1081	862
Flt Permitted	0.39	1.00	1.00	0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	620	1631	1248	405	3087			1327	904		1081	862
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	79	378	111	100	374	69	0	335	55	0	660	43
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	79	378	111	100	443	0	0	335	55	0	660	43
Confl. Peds. (#/hr)	14		47	47		14			65			59
Heavy Vehicles (%)	3%	3%	2%	0%	0%	0%	2%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		52	52
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	27.0	27.0	27.0	27.0	27.0			64.0	64.0		64.0	64.0
Effective Green, g (s)	27.0	27.0	27.0	27.0	27.0			64.0	64.0		64.0	64.0
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27			0.64	0.64		0.64	0.64
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	167	440	336	109	833			849	578		691	551
v/s Ratio Prot		0.23			0.14			0.25			c0.61	
v/s Ratio Perm	0.13		0.09	c0.25					0.06			0.05
v/c Ratio	0.47	0.86	0.33	0.92	0.53			0.39	0.10		0.96	0.08
Uniform Delay, d1	30.5	34.7	29.3	35.4	31.1			8.7	6.9		16.7	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.75	0.73		0.47	0.68
Incremental Delay, d2	9.3	19.2	2.6	66.1	2.4			1.3	0.3		4.1	0.0
Delay (s)	39.9	53.8	31.9	101.5	33.5			7.8	5.4		12.0	4.6
Level of Service	D	D	C	F	C			A	A		B	A
Approach Delay (s)		47.6			46.0			7.5			11.5	
Approach LOS		D			D			A			B	

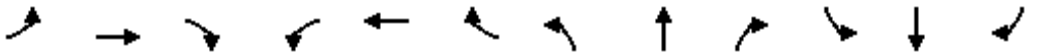
Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	26	38	0	0	0	0	314	45	0	721	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.95						0.98			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1616						1147			1149	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1616						1147			1149	
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.95	0.90	0.95	0.95	0.90	0.95	0.95
Adj. Flow (vph)	40	27	40	0	0	0	0	331	47	0	759	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	107	0	0	0	0	0	378	0	0	759	0
Confl. Peds. (#/hr)	11		5			11			19			16
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	3%	0%
Parking (#/hr)								42			44	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		10.0						81.0			81.0	
Effective Green, g (s)		10.0						81.0			81.0	
Actuated g/C Ratio		0.10						0.81			0.81	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		6.0						3.0			3.0	
Lane Grp Cap (vph)		161						929			930	
v/s Ratio Prot								0.33			c0.66	
v/s Ratio Perm		0.07										
v/c Ratio		0.66						0.41			0.82	
Uniform Delay, d1		43.4						2.7			5.3	
Progression Factor		1.00						0.99			0.63	
Incremental Delay, d2		15.1						1.2			4.1	
Delay (s)		58.5						3.9			7.5	
Level of Service		E						A			A	
Approach Delay (s)		58.5			0.0			3.9			7.5	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

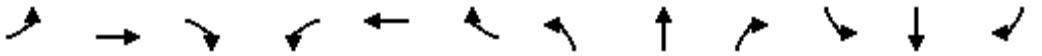
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	838	174	126	1092	157	0	297	38	0	542	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	10	10	11	10	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.87	1.00	1.00	0.90		1.00	0.90		1.00	0.96
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1596	3179	1207	1562	3210	1253		1262	973		1092	883
Flt Permitted	0.12	1.00	1.00	0.13	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	207	3179	1207	214	3210	1253		1262	973		1092	883
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	99	882	183	133	1149	165	0	313	40	0	571	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	99	882	183	133	1149	165	0	313	40	0	571	89
Confl. Peds. (#/hr)	39		56	56		39			78			22
Heavy Vehicles (%)	0%	4%	3%	2%	3%	3%	3%	2%	0%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		52	52
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	37.2	32.4	32.4	41.4	34.6	34.6		48.6	48.6		48.6	48.6
Effective Green, g (s)	37.2	32.4	32.4	41.4	34.6	34.6		48.6	48.6		48.6	48.6
Actuated g/C Ratio	0.37	0.32	0.32	0.41	0.35	0.35		0.49	0.49		0.49	0.49
Clearance Time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	143	1029	391	182	1110	433		613	472		530	429
v/s Ratio Prot	0.03	0.28		c0.05	c0.36			0.25			c0.52	
v/s Ratio Perm	0.22		0.15	0.25		0.13			0.04			0.10
v/c Ratio	0.69	0.86	0.47	0.73	1.04	0.38		0.51	0.08		1.08	0.21
Uniform Delay, d1	24.7	31.6	26.9	21.6	32.7	24.6		17.6	13.8		25.7	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.86	0.91		0.80	0.69
Incremental Delay, d2	13.5	9.2	4.0	14.0	36.5	2.5		2.9	0.3		52.5	0.6
Delay (s)	38.3	40.8	30.9	35.6	69.2	27.2		18.0	12.8		73.1	10.8
Level of Service	D	D	C	D	E	C		B	B		E	B
Approach Delay (s)		39.0			61.3			17.4			64.7	
Approach LOS		D			E			B			E	

Intersection Summary			
HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		

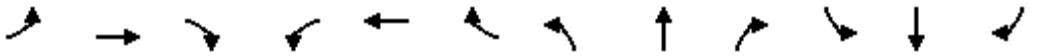
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	30	34	35	6	27	0	356	20	0	663	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.97			0.97			1.00	0.91		1.00	0.96
Flpb, ped/bikes		0.99			0.98			1.00	1.00		1.00	1.00
Frt		0.94			0.95			1.00	0.85		1.00	0.85
Flt Protected		0.99			0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1515			1486			1054	1349		1166	1416
Flt Permitted		0.93			0.79			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1427			1206			1054	1349		1166	1416
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)	16	32	36	37	6	28	0	375	21	0	698	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	84	0	0	71	0	0	375	21	0	698	8
Confl. Peds. (#/hr)	11		9	9		11			18			6
Confl. Bikes (#/hr)			2			1						
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	4%	0%	11%	3%	0%
Parking (#/hr)								54			42	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		12.0			12.0			79.0	79.0		79.0	79.0
Effective Green, g (s)		12.0			12.0			79.0	79.0		79.0	79.0
Actuated g/C Ratio		0.12			0.12			0.79	0.79		0.79	0.79
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		8.0			8.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		171			144			832	1065		921	1118
v/s Ratio Prot								0.36			c0.60	
v/s Ratio Perm		0.06			c0.06				0.02			0.01
v/c Ratio		0.49			0.49			0.45	0.02		0.76	0.01
Uniform Delay, d1		41.1			41.2			3.4	2.2		5.5	2.2
Progression Factor		1.00			1.00			1.00	1.00		0.59	0.70
Incremental Delay, d2		9.2			10.9			1.8	0.0		3.5	0.0
Delay (s)		50.3			52.1			5.2	2.3		6.8	1.6
Level of Service		D			D			A	A		A	A
Approach Delay (s)		50.3			52.1			5.0			6.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.8%	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												
Volume (vph)	157	668	68	22	820	156	0	317	19	0	429	113
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	10	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	0.99			1.00	0.94		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1549	3149	1330	1584	3119			1520	1237		1520	1241
Flt Permitted	0.13	1.00	1.00	0.36	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	204	3149	1330	608	3119			1520	1237		1520	1241
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	165	703	72	23	863	164	0	334	20	0	452	119
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	165	703	72	23	1027	0	0	334	20	0	452	119
Confl. Peds. (#/hr)	30		39	39		30			52			18
Heavy Vehicles (%)	3%	5%	2%	0%	2%	4%	2%	3%	0%	4%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	52.7	47.7	47.7	42.8	40.8			39.0	39.0		39.0	39.0
Effective Green, g (s)	52.7	47.7	47.7	42.8	40.8			39.0	39.0		39.0	39.0
Actuated g/C Ratio	0.52	0.47	0.47	0.42	0.40			0.38	0.38		0.38	0.38
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	223	1476	623	275	1251			582	474		582	475
v/s Ratio Prot	c0.06	0.22		0.00	c0.33			0.22			c0.30	
v/s Ratio Perm	0.32		0.05	0.03					0.02			0.10
v/c Ratio	0.74	0.48	0.12	0.08	0.82			0.57	0.04		0.78	0.25
Uniform Delay, d1	17.7	18.5	15.2	17.3	27.2			24.8	19.6		27.5	21.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	12.1	1.1	0.4	0.1	6.1			4.1	0.2		9.8	1.3
Delay (s)	29.8	19.6	15.5	17.5	33.3			28.9	19.8		37.3	22.6
Level of Service	C	B	B	B	C			C	B		D	C
Approach Delay (s)		21.1			33.0			28.3			34.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	101.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Mitigated Build Alternative Concept Plans

(Proposed Mitigations within Existing Curb-to-Curb Width)

N

0 40 80
HORIZONTAL SCALE IN FEET

CALCULATED SMS
CHECKED SDG

MITIGATION ALTERNATIVE
CERMAK/BLUE ISLAND INTERSECTION

ASHLAND AVE. BRT

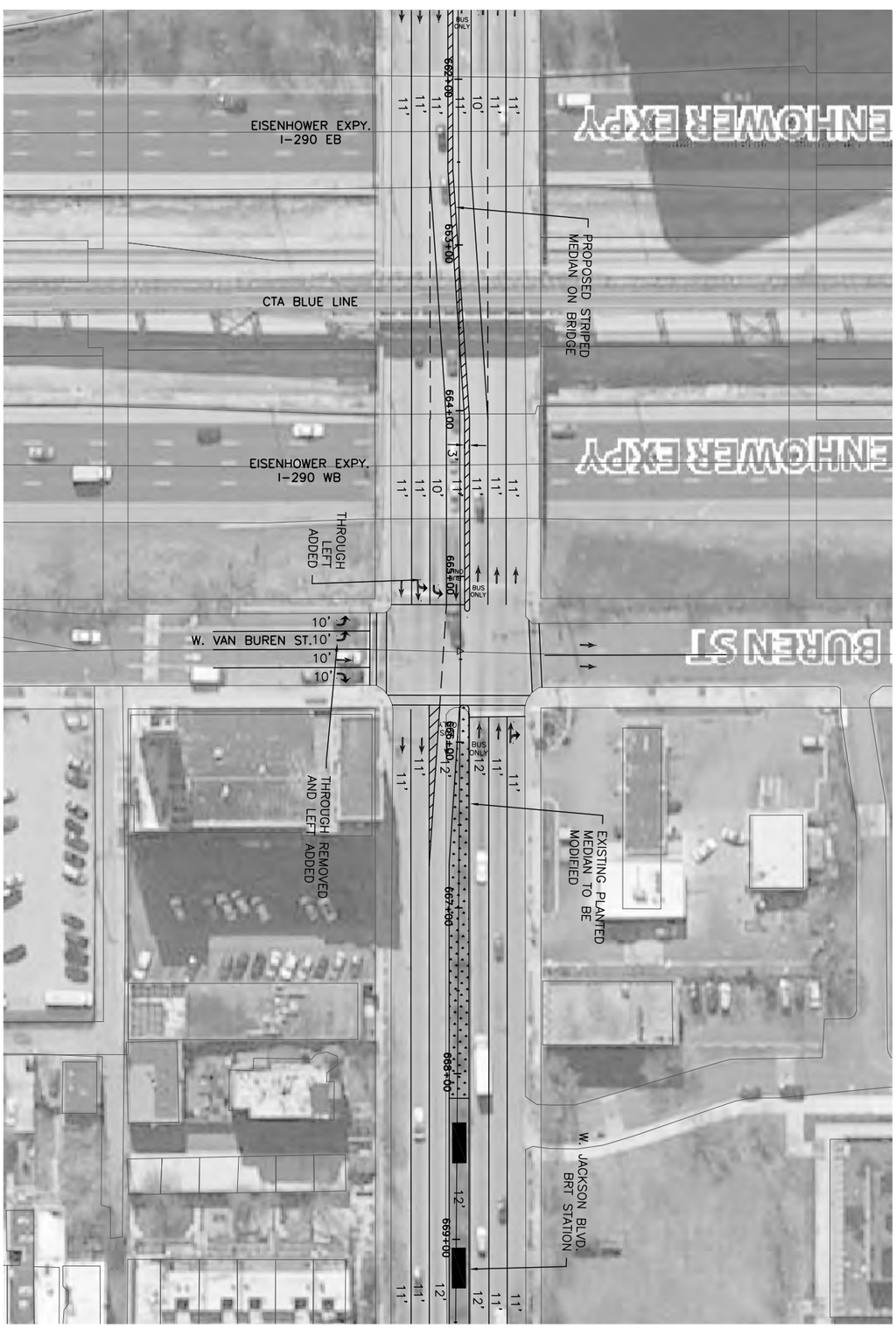
N

0 40 80
HORIZONTAL SCALE IN FEET

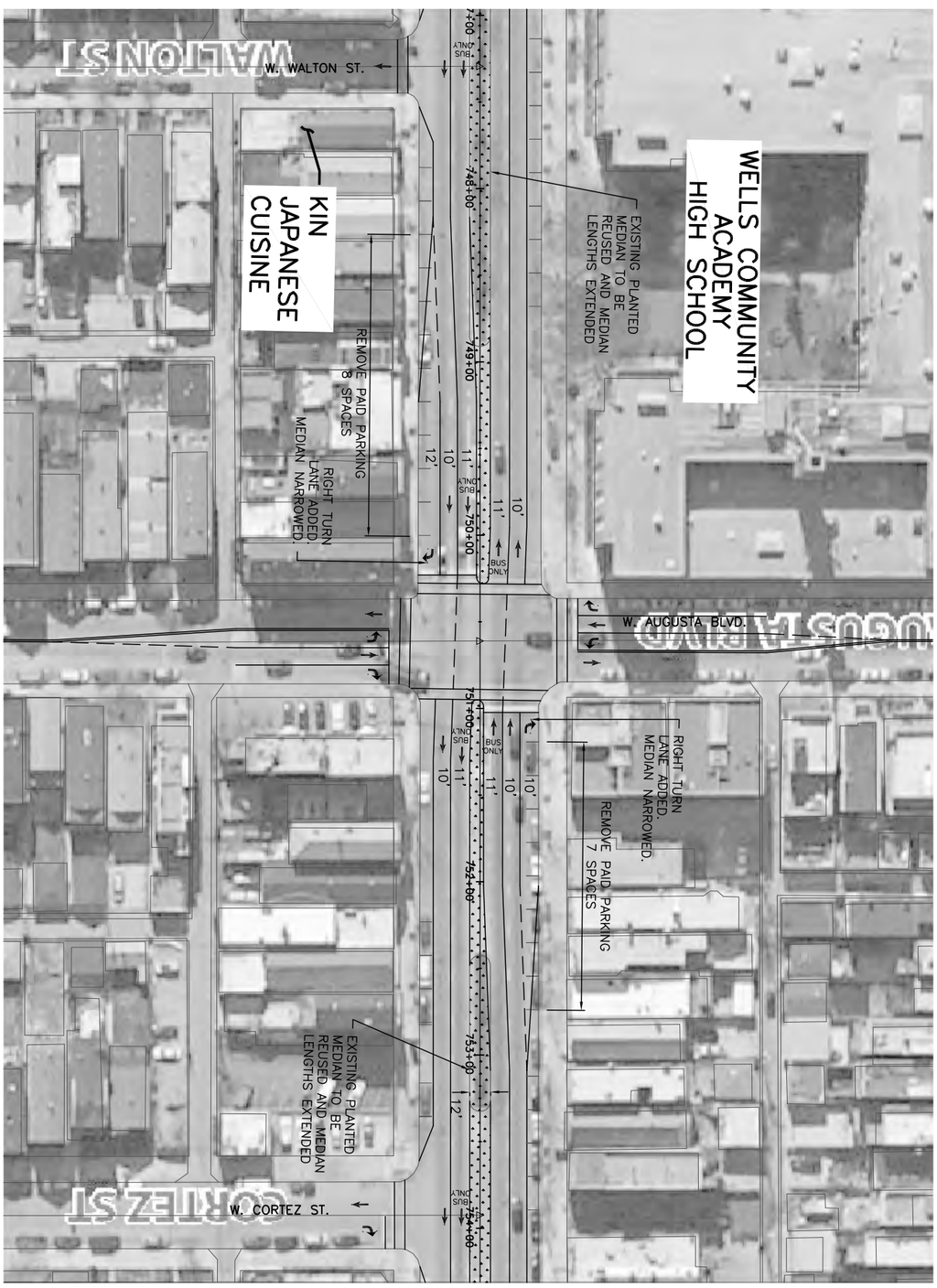
CALCULATED SMS
CHECKED SDG

MITIGATION ALTERNATIVE ROOSEVELT INTERSECTION

ASHLAND AVE. BRT

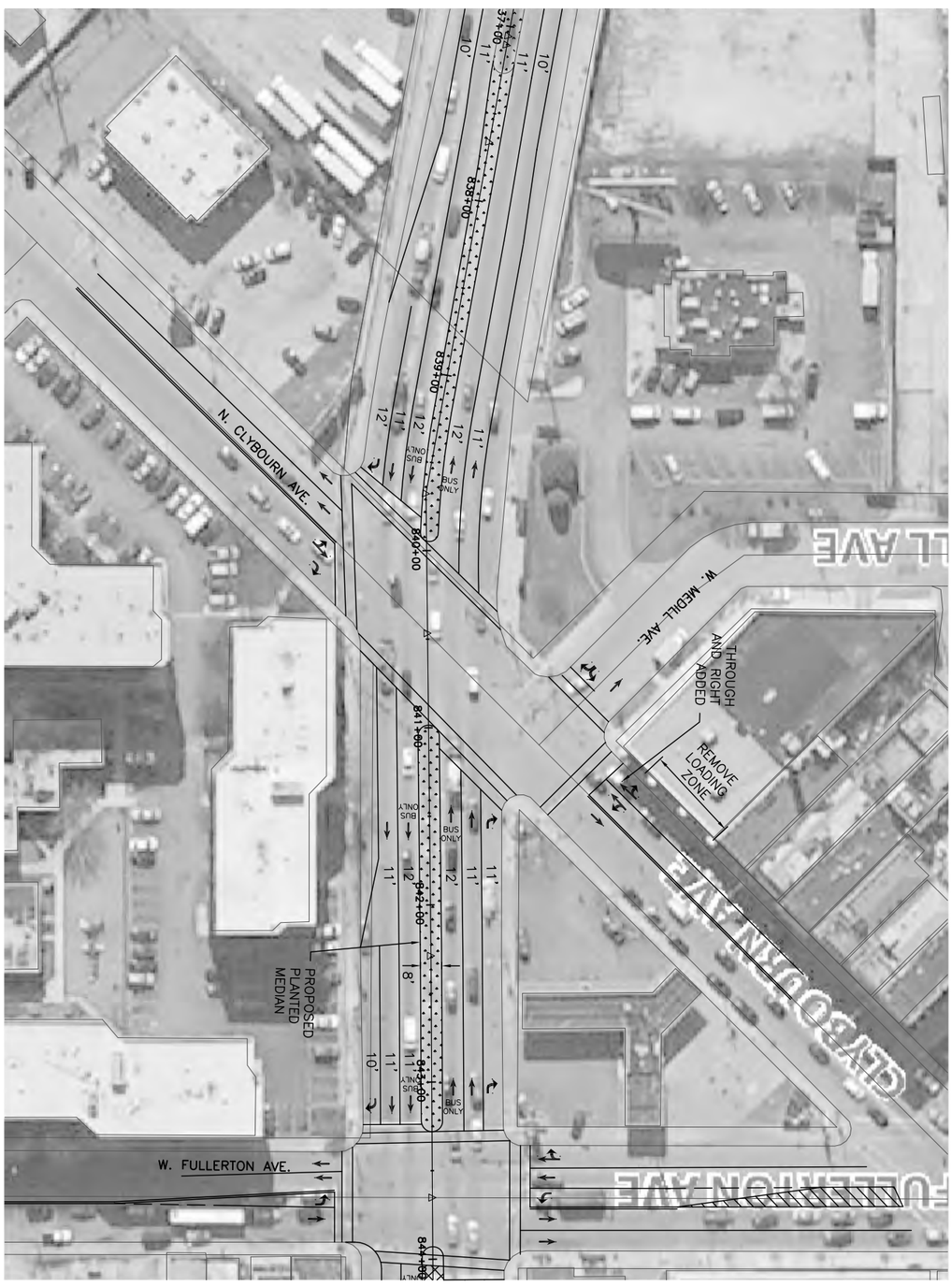


6 3	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE VAN BUREN INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N

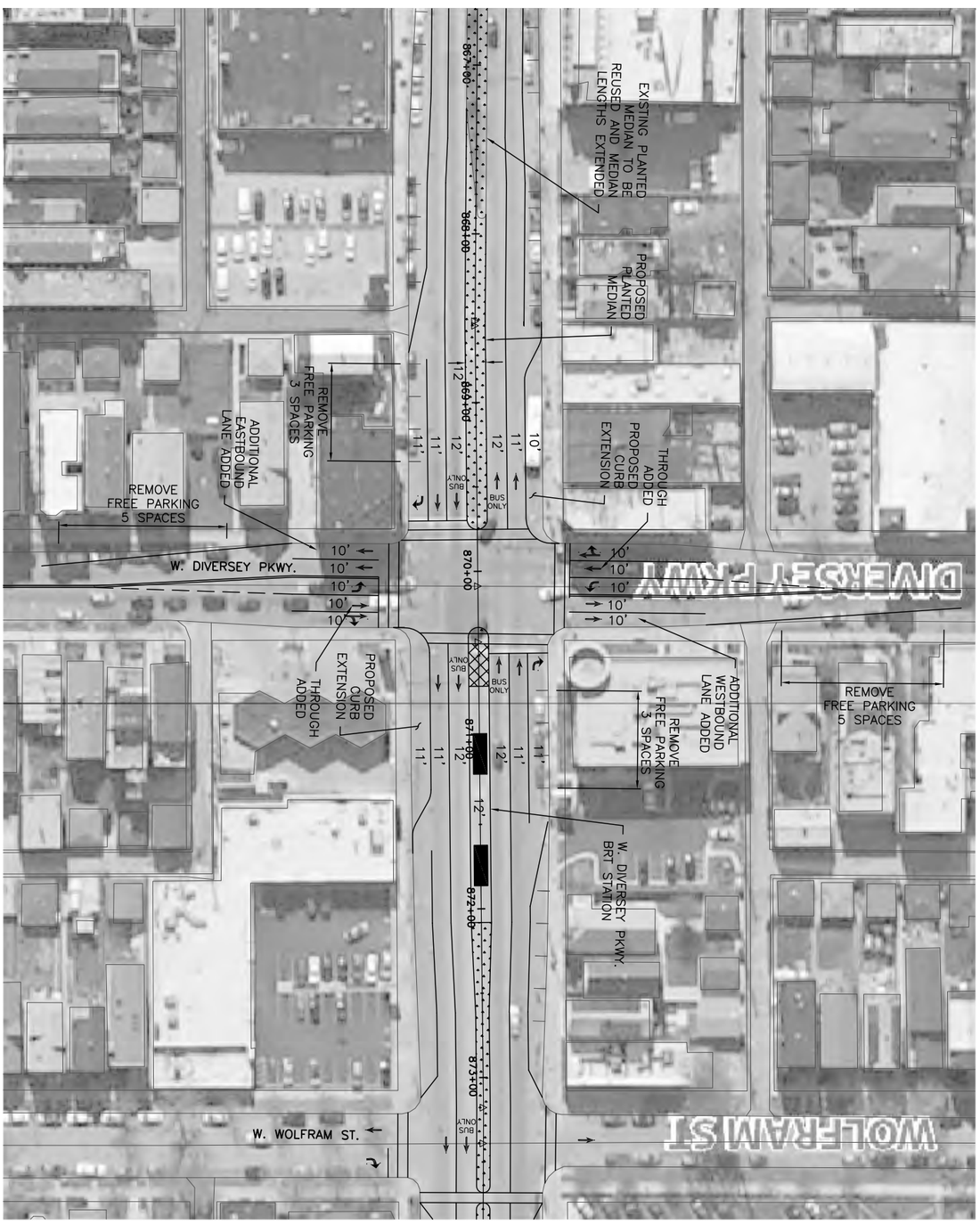


4 of 9	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE AUGUSTA INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N

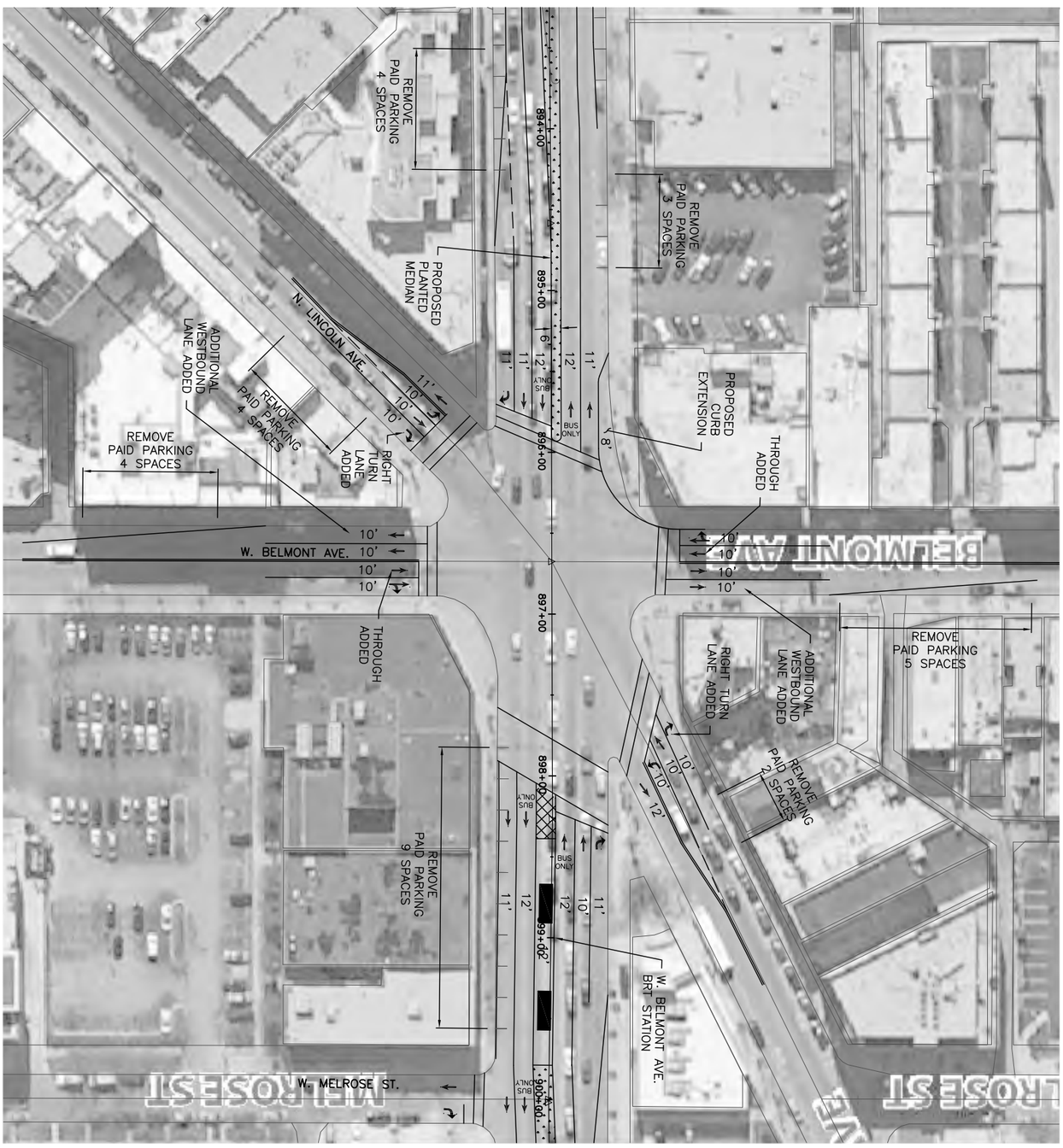
6 / 5	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE WEBSTER INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N



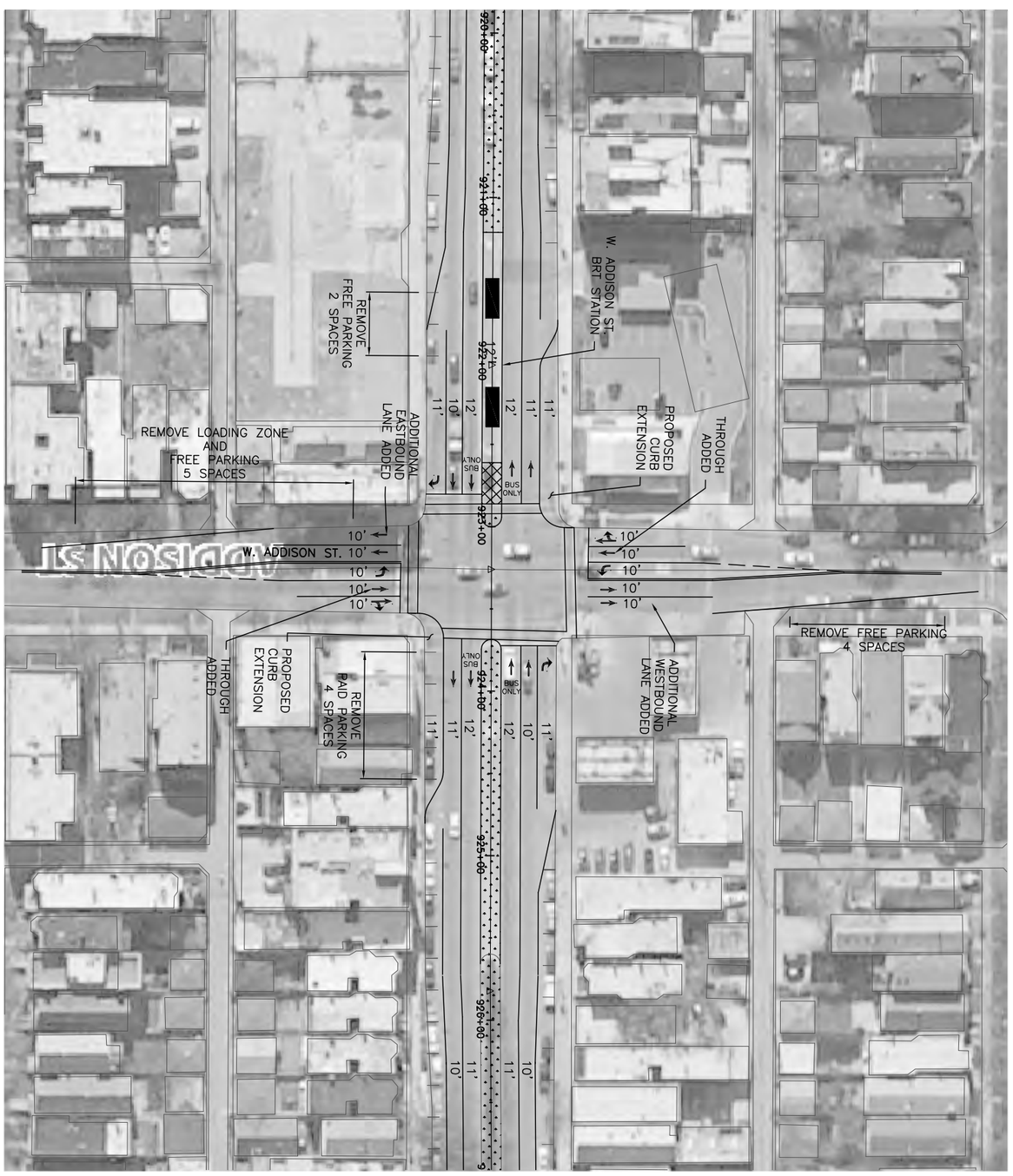
6 of 6	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE CLYBOURN INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N



6 / 7	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE DIVERSEY INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N



68	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE BELMONT/LINCOLN INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N



6/6	ASHLAND AVE. BRT	MITIGATION ALTERNATIVE ADDISON INTERSECTION	CALCULATED SMS CHECKED SDG	0 40 80 HORIZONTAL SCALE IN FEET	N

Potential Mitigation Build Alternative Level of Service Results

(Additional Potential Mitigations – Outside of Existing Curb-to-Curb Width)

HCM Signalized Intersection Capacity Analysis
1001: Ashland Ave. & W Irving Park Rd.

9/16/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	216	906	138	128	910	39	0	569	72	0	796	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.50	1.00	0.98			1.00	0.63		1.00	0.79
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	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1559	3040	685	1542	4412			1228	622		3110	1019
Flt Permitted	0.11	1.00	1.00	0.11	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	173	3040	685	186	4412			1228	622		3110	1019
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	1.00	0.91	0.91	1.00	0.91	0.91
Adj. Flow (vph)	237	996	152	141	1000	43	0	625	79	0	875	122
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	237	996	152	141	1043	0	0	625	79	0	875	122
Confl. Peds. (#/hr)	239		202	202		239			378			144
Confl. Bikes (#/hr)						1						3
Heavy Vehicles (%)	2%	5%	5%	3%	1%	3%	2%	2%	6%	1%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								36	36		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	53.2	43.0	43.0	42.2	35.0			66.8	66.8		66.8	66.8
Effective Green, g (s)	53.2	43.0	43.0	42.2	35.0			66.8	66.8		66.8	66.8
Actuated g/C Ratio	0.41	0.33	0.33	0.32	0.27			0.51	0.51		0.51	0.51
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	232	1005	226	135	1187			631	319		1598	523
v/s Ratio Prot	c0.12	0.33		0.06	0.24			c0.51			0.28	
v/s Ratio Perm	c0.30		0.22	0.28					0.13			0.12
v/c Ratio	1.02	0.99	0.67	1.04	0.88			0.99	0.25		0.55	0.23
Uniform Delay, d1	37.4	43.3	37.4	38.3	45.5			31.3	17.6		21.4	17.5
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.12	1.23		1.00	1.00
Incremental Delay, d2	64.8	26.1	6.1	89.8	7.4			17.7	0.6		1.4	1.0
Delay (s)	102.2	69.4	43.5	128.1	52.9			52.8	22.3		22.7	18.5
Level of Service	F	E	D	F	D			D	C		C	B
Approach Delay (s)		72.2			61.8			49.4			22.2	
Approach LOS		E			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	53.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	78.4%	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												
Volume (vph)	56	92	48	0	0	0	0	722	36	0	660	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.95						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1416						1124			1208	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1416						1124			1208	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.97	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	62	101	53	0	0	0	0	793	40	0	725	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	216	0	0	0	0	0	833	0	0	733	0
Confl. Peds. (#/hr)	62		25	25		62			19			16
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	0%	2%	0%	0%	0%	0%	0%	4%	3%	3%	2%	0%
Parking (#/hr)								44			38	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		22.0						100.0			100.0	
Effective Green, g (s)		22.0						100.0			100.0	
Actuated g/C Ratio		0.17						0.77			0.77	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		239						864			929	
v/s Ratio Prot								c0.74			0.61	
v/s Ratio Perm		0.15										
v/c Ratio		0.90						0.96			0.79	
Uniform Delay, d1		53.0						13.4			8.8	
Progression Factor		1.00						0.82			0.83	
Incremental Delay, d2		37.8						21.0			5.6	
Delay (s)		90.7						31.9			12.9	
Level of Service		F						C			B	
Approach Delay (s)		90.7			0.0			31.9			12.9	
Approach LOS		F			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	31.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.9%	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												
Volume (vph)	175	566	65	136	507	31	0	354	47	0	616	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	10	10	9	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.96		1.00	0.89
Flpb, ped/bikes	0.98	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1490	2838		1441	2911			1143	835		1250	940
Flt Permitted	0.33	1.00		0.27	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	511	2838		404	2911			1143	835		1250	940
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	192	622	71	149	557	34	0	389	52	0	677	51
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	192	693	0	149	591	0	0	389	52	0	677	51
Confl. Peds. (#/hr)	28		11	11		28			16			49
Confl. Bikes (#/hr)			2			1			1			2
Heavy Vehicles (%)	1%	7%	0%	10%	4%	10%	8%	5%	17%	2%	3%	4%
Parking (#/hr)								42	42		32	32
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	49.3	49.3		49.3	49.3			71.7	71.7		71.7	71.7
Effective Green, g (s)	49.3	49.3		49.3	49.3			71.7	71.7		71.7	71.7
Actuated g/C Ratio	0.38	0.38		0.38	0.38			0.55	0.55		0.55	0.55
Clearance Time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	193	1076		153	1103			630	460		689	518
v/s Ratio Prot		0.24			0.20			0.34			c0.54	
v/s Ratio Perm	c0.38			0.37					0.06			0.05
v/c Ratio	0.99	0.64		0.97	0.54			0.62	0.11		0.98	0.10
Uniform Delay, d1	40.2	33.1		39.7	31.4			19.8	13.9		28.5	13.8
Progression Factor	1.00	1.00		1.00	1.00			0.83	0.88		0.65	0.61
Incremental Delay, d2	62.9	1.3		64.4	0.5			3.8	0.4		22.2	0.2
Delay (s)	103.2	34.5		104.1	31.9			20.3	12.7		40.8	8.6
Level of Service	F	C		F	C			C	B		D	A
Approach Delay (s)		49.4			46.5			19.4			38.6	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	41.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	77.1%	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												
Volume (vph)	0	0	0	92	197	64	0	464	0	0	614	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	4.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.97			1.00			1.00	0.87
Flpb, ped/bikes					0.99			1.00			1.00	1.00
Frt					0.98			1.00			1.00	0.85
Flt Protected					0.99			1.00			1.00	1.00
Satd. Flow (prot)					1606			1428			1126	841
Flt Permitted					0.99			1.00			1.00	1.00
Satd. Flow (perm)					1606			1428			1126	841
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	101	216	70	0	510	0	0	675	60
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	387	0	0	510	0	0	675	60
Confl. Peds. (#/hr)			13	13		43			18			20
Confl. Bikes (#/hr)			2			1						4
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	6%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								6			48	48
Turn Type				Perm	NA			NA	Perm		NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8					2			6
Actuated Green, G (s)					35.0			87.0			87.0	87.0
Effective Green, g (s)					35.0			87.0			87.0	87.0
Actuated g/C Ratio					0.27			0.67			0.67	0.67
Clearance Time (s)					4.0			4.0			4.0	4.0
Lane Grp Cap (vph)					432			955			753	562
v/s Ratio Prot								0.36			c0.60	
v/s Ratio Perm					0.24							0.07
v/c Ratio					0.90			0.53			0.90	0.11
Uniform Delay, d1					45.7			11.1			17.8	7.7
Progression Factor					1.00			1.00			0.49	0.64
Incremental Delay, d2					23.8			1.4			8.0	0.2
Delay (s)					69.5			12.5			16.7	5.0
Level of Service					E			B			B	A
Approach Delay (s)		0.0			69.5			12.5			15.7	
Approach LOS		A			E			B			B	

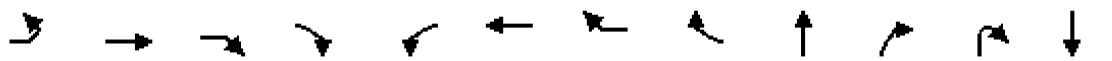
Intersection Summary			
HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	280	19	16	10	10	0	457	8	0	564	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.99	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.99			0.96			1.00			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1590			1523			1304			1493	
Flt Permitted		0.89			0.80			1.00			1.00	
Satd. Flow (perm)		1429			1247			1304			1493	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	142	308	21	18	11	11	0	502	9	0	620	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	471	0	0	40	0	0	511	0	0	660	0
Confl. Peds. (#/hr)	24		35	35		24			24			33
Confl. Bikes (#/hr)			1			1						1
Heavy Vehicles (%)	2%	0%	5%	0%	0%	0%	0%	5%	0%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								22			0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		51.0			51.0			71.0			71.0	
Effective Green, g (s)		51.0			51.0			71.0			71.0	
Actuated g/C Ratio		0.39			0.39			0.55			0.55	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		560			489			712			815	
v/s Ratio Prot								0.39			c0.44	
v/s Ratio Perm		c0.33			0.03							
v/c Ratio		0.84			0.08			0.72			0.81	
Uniform Delay, d1		35.8			24.8			22.0			24.0	
Progression Factor		1.00			1.00			0.39			0.57	
Incremental Delay, d2		14.2			0.3			3.4			3.8	
Delay (s)		50.0			25.1			12.0			17.5	
Level of Service		D			C			B			B	
Approach Delay (s)		50.0			25.1			12.0			17.5	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL2	EBT	EBR	EBR2	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT
Lane Configurations		↑↑	↱			↑↑	↱		↑	↱		↑
Volume (vph)	4	435	105	40	2	285	135	43	595	73	1	513
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	10	11	11	12	10	10	12	11	11	11	11
Total Lost time (s)		5.0	5.0			5.0	5.0		6.0	6.0		6.0
Lane Util. Factor		0.95	1.00			0.95	1.00		1.00	1.00		1.00
Frpb, ped/bikes		1.00	0.85			1.00	0.88		1.00	0.84		1.00
Flpb, ped/bikes		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Frt		1.00	0.85			1.00	0.85		1.00	0.85		1.00
Flt Protected		1.00	1.00			1.00	1.00		1.00	1.00		1.00
Satd. Flow (prot)		2984	1177			3128	1133		1293	916		1535
Flt Permitted		0.95	1.00			0.95	1.00		1.00	1.00		1.00
Satd. Flow (perm)		2842	1177			2980	1133		1293	916		1535
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)	4	478	115	44	2	313	148	47	654	80	1	564
RTOR Reduction (vph)	0	0	60	0	0	0	60	0	0	31	0	0
Lane Group Flow (vph)	0	482	99	0	0	315	135	0	654	50	0	564
Confl. Peds. (#/hr)			51		51		42			47		
Confl. Bikes (#/hr)			8									
Heavy Vehicles (%)	0%	7%	7%	5%	0%	2%	13%	5%	5%	3%	100%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	3	0	0
Parking (#/hr)									24	24		0
Turn Type	Perm	NA	Perm		Perm	NA	Perm		NA	Perm		NA
Protected Phases		10				14			2			6
Permitted Phases	10		10		14		14			2		
Actuated Green, G (s)		27.0	27.0			27.0	27.0		70.0	70.0		70.0
Effective Green, g (s)		27.0	27.0			27.0	27.0		70.0	70.0		70.0
Actuated g/C Ratio		0.21	0.21			0.21	0.21		0.54	0.54		0.54
Clearance Time (s)		5.0	5.0			5.0	5.0		6.0	6.0		6.0
Lane Grp Cap (vph)		590	244			618	235		696	493		826
v/s Ratio Prot									c0.51			0.37
v/s Ratio Perm		c0.17	0.08			0.11	0.12			0.05		
v/c Ratio		0.82	0.40			0.51	0.57		0.94	0.10		0.68
Uniform Delay, d1		49.1	44.5			45.6	46.3		28.0	14.6		21.9
Progression Factor		1.00	1.00			1.00	1.00		0.49	0.18		0.51
Incremental Delay, d2		11.9	4.9			3.0	9.8		17.1	0.3		2.7
Delay (s)		61.0	49.5			48.6	56.1		31.0	3.0		14.0
Level of Service		E	D			D	E		C	A		B
Approach Delay (s)		58.2				51.5			27.9			13.9
Approach LOS		E				D			C			B

Intersection Summary			
HCM 2000 Control Delay	48.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	114.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

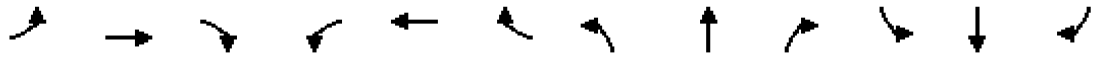
Movement	SBR	SEL	SET	SER	SER2	NWL2	NWL	NWT	NWR	NWR2
Lane Configurations										
Volume (vph)	24	27	342	111	1	7	16	240	61	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	9	10	10	11	12	9	10	10	11
Total Lost time (s)	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lane Util. Factor	1.00	1.00	0.95	1.00			1.00	0.95	1.00	
Frpb, ped/bikes	0.94	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	
Frt	0.85	1.00	1.00	0.85			1.00	1.00	0.85	
Flt Protected	1.00	0.95	1.00	1.00			0.95	1.00	1.00	
Satd. Flow (prot)	1391	1386	3099	1374			1539	3160	1388	
Flt Permitted	1.00	0.46	1.00	1.00			0.26	1.00	1.00	
Satd. Flow (perm)	1391	669	3099	1374			424	3160	1388	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	26	30	376	122	1	8	18	264	67	3
RTOR Reduction (vph)	0	0	0	59	0	0	0	0	59	0
Lane Group Flow (vph)	26	30	376	64	0	0	26	264	11	0
Confl. Peds. (#/hr)	26									
Confl. Bikes (#/hr)										
Heavy Vehicles (%)	0%	11%	3%	4%	0%	0%	0%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Turn Type	Perm	Perm	NA	Perm		Perm	Perm	NA	Perm	
Protected Phases			4					8		
Permitted Phases	6	4		4		8	8		8	
Actuated Green, G (s)	70.0	16.0	16.0	16.0			16.0	16.0	16.0	
Effective Green, g (s)	70.0	16.0	16.0	16.0			16.0	16.0	16.0	
Actuated g/C Ratio	0.54	0.12	0.12	0.12			0.12	0.12	0.12	
Clearance Time (s)	6.0	6.0	6.0	6.0			6.0	6.0	6.0	
Lane Grp Cap (vph)	749	82	381	169			52	388	170	
v/s Ratio Prot			c0.12					0.08		
v/s Ratio Perm	0.02	0.04		0.05			0.06		0.01	
v/c Ratio	0.03	0.37	0.99	0.38			0.50	0.68	0.07	
Uniform Delay, d1	14.1	52.3	56.9	52.4			53.3	54.6	50.4	
Progression Factor	0.85	1.00	1.00	1.00			1.00	1.00	1.00	
Incremental Delay, d2	0.1	12.1	42.9	6.4			30.5	9.3	0.7	
Delay (s)	12.0	64.5	99.8	58.8			83.7	63.8	51.1	
Level of Service	B	E	F	E			F	E	D	
Approach Delay (s)			88.3					62.8		
Approach LOS			F					E		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	146	179	5	0	633	0	0	591	61
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					1.00			1.00			0.97	
Flpb, ped/bikes					0.98			1.00			1.00	
Frt					1.00			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1919			1333			1220	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1919			1333			1220	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	0	0	160	197	5	0	696	0	0	649	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	362	0	0	696	0	0	716	0
Confl. Peds. (#/hr)			19	19		54			130			48
Confl. Bikes (#/hr)						2			1			1
Heavy Vehicles (%)	0%	0%	0%	1%	1%	0%	0%	7%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								16			30	30
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					31.0			91.0			91.0	
Effective Green, g (s)					31.0			91.0			91.0	
Actuated g/C Ratio					0.24			0.70			0.70	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					457			933			854	
v/s Ratio Prot								0.52			c0.59	
v/s Ratio Perm					0.19							
v/c Ratio					0.79			0.75			0.84	
Uniform Delay, d1					46.5			12.2			14.2	
Progression Factor					1.00			0.26			0.75	
Incremental Delay, d2					13.2			4.2			7.5	
Delay (s)					59.6			7.4			18.1	
Level of Service					E			A			B	
Approach Delay (s)		0.0			59.6			7.4			18.1	
Approach LOS		A			E			A			B	

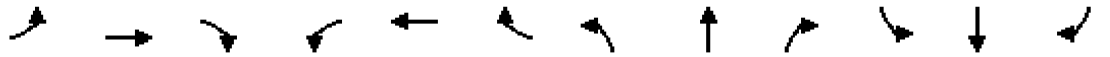
Intersection Summary			
HCM 2000 Control Delay	22.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	141	112	0	0	0	0	524	35	0	568	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						1.00			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.95						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1656						1259			1433	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1656						1259			1433	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	57	155	123	0	0	0	0	576	38	0	624	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	335	0	0	0	0	0	614	0	0	636	0
Confl. Peds. (#/hr)	8		1			8			1			2
Heavy Vehicles (%)	4%	1%	0%	0%	0%	0%	2%	13%	0%	0%	4%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								16	16		8	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		38.0						84.0			84.0	
Effective Green, g (s)		38.0						84.0			84.0	
Actuated g/C Ratio		0.29						0.65			0.65	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		484						813			925	
v/s Ratio Prot								c0.49			0.44	
v/s Ratio Perm		0.20										
v/c Ratio		0.69						0.76			0.69	
Uniform Delay, d1		40.8						15.9			14.6	
Progression Factor		1.00						0.62			1.18	
Incremental Delay, d2		7.9						5.1			2.2	
Delay (s)		48.7						15.0			19.5	
Level of Service		D						B			B	
Approach Delay (s)		48.7			0.0			15.0			19.5	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.7%	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												
Volume (vph)	184	733	75	144	480	68	0	602	79	0	995	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	10	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00	0.89		1.00	0.66
Flpb, ped/bikes	0.99	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1523	2997		1577	3010			2225	522		2979	934
Flt Permitted	0.26	1.00		0.17	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	420	2997		288	3010			2225	522		2979	934
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	202	805	82	158	527	75	0	662	87	0	1093	63
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	202	887	0	158	602	0	0	662	87	0	1093	63
Confl. Peds. (#/hr)	44		31	31		44			20			76
Confl. Bikes (#/hr)			5			2			3			1
Heavy Vehicles (%)	4%	4%	3%	1%	2%	3%	0%	7%	10%	4%	1%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								92	92		16	
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	63.0	48.0		55.0	43.0			59.0	59.0		59.0	59.0
Effective Green, g (s)	63.0	48.0		55.0	43.0			59.0	59.0		59.0	59.0
Actuated g/C Ratio	0.48	0.37		0.42	0.33			0.45	0.45		0.45	0.45
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	347	1106		240	995			1009	236		1352	423
v/s Ratio Prot	c0.08	c0.30		c0.06	0.20			0.30			c0.37	
v/s Ratio Perm	0.21			0.22					0.17			0.07
v/c Ratio	0.58	0.80		0.66	0.61			0.66	0.37		0.81	0.15
Uniform Delay, d1	21.6	36.7		26.2	36.4			27.6	23.3		30.6	20.8
Progression Factor	1.00	1.00		1.00	1.00			0.93	1.00		1.11	1.21
Incremental Delay, d2	7.0	6.2		13.3	2.7			0.3	0.4		4.9	0.7
Delay (s)	28.6	42.9		39.5	39.1			26.1	23.8		38.8	25.8
Level of Service	C	D		D	D			C	C		D	C
Approach Delay (s)		40.2			39.2			25.8			38.1	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.6%	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												
Volume (vph)	32	205	98	102	128	15	0	634	53	0	677	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.99			1.00	
Flt Protected		1.00			0.98			1.00			1.00	
Satd. Flow (prot)		1531			1557			1151			1527	
Flt Permitted		0.95			0.52			1.00			1.00	
Satd. Flow (perm)		1459			830			1151			1527	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	35	225	108	112	141	16	0	697	58	0	744	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	368	0	0	269	0	0	755	0	0	771	0
Confl. Peds. (#/hr)	12		2	2		12			4			3
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	0%	0%	1%	2%	0%	0%	6%	6%	4%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			82.0			82.0	
Effective Green, g (s)		40.0			40.0			82.0			82.0	
Actuated g/C Ratio		0.31			0.31			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		448			255			726			963	
v/s Ratio Prot								c0.66			0.50	
v/s Ratio Perm		0.25			c0.32							
v/c Ratio		0.82			1.05			1.04			0.80	
Uniform Delay, d1		41.7			45.0			24.0			17.9	
Progression Factor		1.00			1.00			0.51			1.14	
Incremental Delay, d2		15.5			71.5			39.4			4.2	
Delay (s)		57.2			116.5			51.7			24.6	
Level of Service		E			F			D			C	
Approach Delay (s)		57.2			116.5			51.7			24.6	
Approach LOS		E			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	51.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.1%	ICU Level of Service	E
Analysis Period (min)	15		

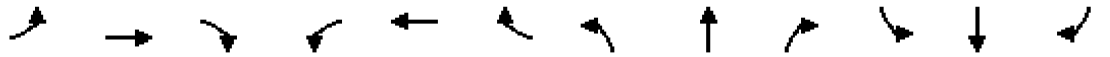
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	630	7	164	476	15	0	506	54	0	596	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	9	10	9	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0		2.0	5.0	5.0		5.0	5.0		5.0	2.0
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.94		1.00	0.92		1.00	0.88
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		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1475	3034		1505	1631	1288		1431	1115		1535	1157
Flt Permitted	0.19	1.00		0.21	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	295	3034		329	1631	1288		1431	1115		1535	1157
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	136	692	8	180	523	16	0	556	59	0	655	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	136	700	0	180	523	16	0	556	59	0	655	125
Confl. Peds. (#/hr)	20		24	24		20			39			38
Confl. Bikes (#/hr)			5			1			2			3
Heavy Vehicles (%)	8%	5%	0%	2%	3%	0%	0%	7%	6%	9%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								4	4		0	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	pm+ov
Protected Phases	7	4		3	8			2 10			6	7
Permitted Phases	4			8		8			2 10			6
Actuated Green, G (s)	47.1	41.1		54.0	46.0	46.0		66.0	66.0		63.0	69.0
Effective Green, g (s)	47.1	41.1		54.0	46.0	46.0		64.0	64.0		63.0	69.0
Actuated g/C Ratio	0.36	0.32		0.42	0.35	0.35		0.49	0.49		0.48	0.53
Clearance Time (s)	2.0	5.0		2.0	5.0	5.0					5.0	2.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0					3.0	3.0
Lane Grp Cap (vph)	161	959		235	577	455		704	548		743	614
v/s Ratio Prot	c0.04	0.23		c0.06	c0.32			c0.39			c0.43	0.01
v/s Ratio Perm	0.27			0.25		0.01			0.05			0.10
v/c Ratio	0.84	0.73		0.77	0.91	0.04		0.79	0.11		0.88	0.20
Uniform Delay, d1	37.8	39.5		27.4	40.0	27.5		27.4	17.7		30.1	16.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.22	0.25		0.95	1.06
Incremental Delay, d2	31.3	4.9		13.8	20.4	0.1		4.8	0.2		8.4	0.1
Delay (s)	69.0	44.4		41.2	60.3	27.6		10.8	4.6		37.2	17.1
Level of Service	E	D		D	E	C		B	A		D	B
Approach Delay (s)		48.4			54.8			10.2			34.0	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	38.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

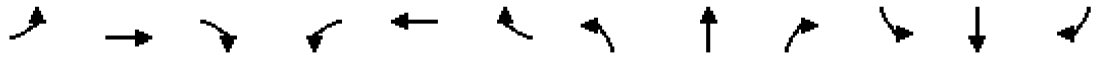
Movement	EBL	EBT	EBR	WBL2	WBT	WBR	NBT	NBR	SBT	SBR	SBR2	NEL
Lane Configurations												
Volume (vph)	4	615	176	18	209	46	542	32	731	11	1	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	11	11	11	11	11	11	11	11	11	16
Total Lost time (s)		5.0			5.0		5.0		5.0			
Lane Util. Factor		0.95			0.95		1.00		1.00			
Frpb, ped/bikes		0.99			1.00		1.00		1.00			
Flpb, ped/bikes		1.00			1.00		1.00		1.00			
Frt		0.97			0.97		0.99		1.00			
Flt Protected		1.00			1.00		1.00		1.00			
Satd. Flow (prot)		3166			3046		1425		1481			
Flt Permitted		0.95			0.87		1.00		1.00			
Satd. Flow (perm)		3020			2654		1425		1481			
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	0.92
Adj. Flow (vph)	4	676	193	20	230	51	596	35	803	12	1	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	873	0	0	301	0	631	0	816	0	0	0
Confl. Peds. (#/hr)	2		14			2		4				
Heavy Vehicles (%)	0%	0%	0%	0%	5%	7%	9%	6%	2%	0%	0%	2%
Parking (#/hr)							0		6			
Turn Type	Perm	NA		Perm	NA		NA		NA			
Protected Phases		4			8		2		6			10
Permitted Phases	4			8								
Actuated Green, G (s)		55.0			55.0		65.0		65.0			
Effective Green, g (s)		55.0			55.0		65.0		65.0			
Actuated g/C Ratio		0.42			0.42		0.50		0.50			
Clearance Time (s)		5.0			5.0		5.0		5.0			
Vehicle Extension (s)		3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)		1277			1122		712		740			
v/s Ratio Prot							0.44		c0.55			
v/s Ratio Perm		c0.29			0.11							
v/c Ratio		0.68			0.27		0.89		1.10			
Uniform Delay, d1		30.4			24.4		29.2		32.5			
Progression Factor		1.00			1.00		1.00		0.65			
Incremental Delay, d2		3.0			0.6		15.2		57.0			
Delay (s)		33.4			25.0		44.4		78.1			
Level of Service		C			C		D		E			
Approach Delay (s)		33.4			25.0		44.4		78.1			0.0
Approach LOS		C			C		D		E			A

Intersection Summary			
HCM 2000 Control Delay	49.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	83.9%	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												
Volume (vph)	48	226	3	152	263	14	0	551	86	0	671	104
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00			1.00	0.97		1.00	0.98
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00			1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1664	1387		3114			1374	1256		1506	1443
Flt Permitted		0.84	1.00		0.63			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1402	1387		1999			1374	1256		1506	1443
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	53	248	3	167	289	15	0	605	95	0	737	114
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	301	3	0	471	0	0	605	95	0	737	114
Confl. Peds. (#/hr)	4		4	4		4			2			7
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	14%	2%	10%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								0	0		0	
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		31.0	31.0		31.0			61.0	61.0		61.0	61.0
Effective Green, g (s)		31.0	31.0		31.0			61.0	61.0		61.0	61.0
Actuated g/C Ratio		0.31	0.31		0.31			0.61	0.61		0.61	0.61
Clearance Time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		434	429		619			838	766		918	880
v/s Ratio Prot								0.44			c0.49	
v/s Ratio Perm		0.21	0.00		c0.24				0.08			0.08
v/c Ratio		0.69	0.01		0.76			0.72	0.12		0.80	0.13
Uniform Delay, d1		30.3	23.9		31.2			13.6	8.2		14.9	8.3
Progression Factor		1.00	1.00		1.00			1.48	1.73		1.00	1.00
Incremental Delay, d2		8.8	0.0		8.6			3.3	0.2		7.4	0.3
Delay (s)		39.1	23.9		39.7			23.5	14.5		22.3	8.6
Level of Service		D	C		D			C	B		C	A
Approach Delay (s)		39.0			39.7			22.2			20.4	
Approach LOS		D			D			C			C	

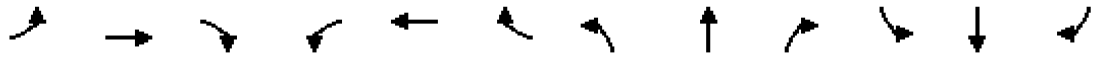
Intersection Summary			
HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	581	59	4	118	80	0	567	1	0	824	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	16	16	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0	3.0		4.0			3.0	
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00			1.00	
Frpb, ped/bikes		1.00	0.98		1.00	0.97		1.00			1.00	
Flpb, ped/bikes		1.00	1.00		1.00	1.00		1.00			1.00	
Frt		1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected		1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (prot)		1647	1323		1943	1438		1506			1550	
Flt Permitted		1.00	1.00		0.86	1.00		1.00			1.00	
Satd. Flow (perm)		1647	1323		1679	1438		1506			1550	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	638	65	4	130	88	0	623	1	0	905	3
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	638	65	0	134	88	0	624	0	0	908	0
Confl. Peds. (#/hr)	9		10	10		9						
Heavy Vehicles (%)	0%	2%	2%	0%	5%	3%	0%	4%	0%	5%	1%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	custom		NA			NA	
Protected Phases		4			8	1		2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)		37.0	37.0		37.0	41.0		48.0			56.0	
Effective Green, g (s)		37.0	37.0		37.0	41.0		48.0			56.0	
Actuated g/C Ratio		0.37	0.37		0.37	0.41		0.48			0.56	
Clearance Time (s)		4.0	4.0		4.0	3.0		4.0			3.0	
Lane Grp Cap (vph)		609	489		621	589		722			868	
v/s Ratio Prot		c0.39				0.01		0.41			c0.59	
v/s Ratio Perm			0.05		0.08	0.06						
v/c Ratio		1.05	0.13		0.22	0.15		0.86			1.05	
Uniform Delay, d1		31.5	20.9		21.6	18.5		23.1			22.0	
Progression Factor		1.00	1.00		1.00	1.00		0.60			0.71	
Incremental Delay, d2		49.5	0.6		0.8	0.5		10.0			36.4	
Delay (s)		81.0	21.4		22.4	19.1		23.9			52.0	
Level of Service		F	C		C	B		C			D	
Approach Delay (s)		75.5			21.1			23.9			52.0	
Approach LOS		E			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	48.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		

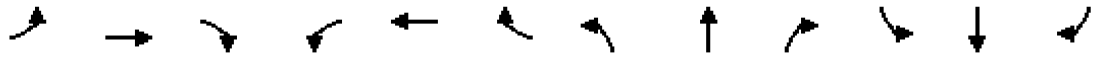
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	462	408	57	7	197	0	85	261	10	0	492	239
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	10	10	16	16	16	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Lane Util. Factor	0.97	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	0.97
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.98			1.00		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2997	1555			1933		1545	1332			1689	1260
Flt Permitted	0.95	1.00			0.97		0.25	1.00			1.00	1.00
Satd. Flow (perm)	2997	1555			1884		413	1332			1689	1260
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)	508	448	63	8	216	0	93	287	11	0	541	263
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	508	511	0	0	224	0	93	298	0	0	541	263
Confl. Peds. (#/hr)	11		2	2		11	7		3			7
Heavy Vehicles (%)	7%	6%	4%	14%	5%	0%	7%	16%	0%	11%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	0	0
Parking (#/hr)								0				0
Turn Type	Prot	NA		Perm	NA		pm+pt	NA			NA	pm+ov
Protected Phases	7	4			8		5	2			6	7
Permitted Phases				8			2					6
Actuated Green, G (s)	20.0	38.4			15.4		52.6	52.6			45.5	65.5
Effective Green, g (s)	20.0	38.4			15.4		52.6	52.6			45.5	65.5
Actuated g/C Ratio	0.20	0.38			0.15		0.53	0.53			0.46	0.66
Clearance Time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	599	597			290		274	700			768	825
v/s Ratio Prot	0.17	c0.33					0.02	c0.22			c0.32	0.06
v/s Ratio Perm					0.12		0.16					0.15
v/c Ratio	0.85	0.86			0.77		0.34	0.43			0.70	0.32
Uniform Delay, d1	38.5	28.3			40.6		14.6	14.5			21.9	7.5
Progression Factor	1.00	1.00			1.00		1.09	0.98			1.36	1.09
Incremental Delay, d2	10.8	11.6			12.0		0.2	0.6			1.5	0.1
Delay (s)	49.3	39.8			52.6		16.2	14.7			31.2	8.2
Level of Service	D	D			D		B	B			C	A
Approach Delay (s)		44.6			52.6			15.1			23.7	
Approach LOS		D			D			B			C	

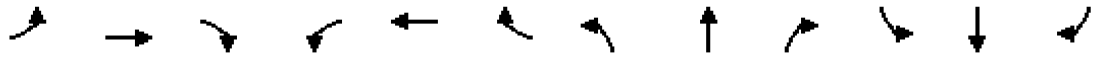
Intersection Summary			
HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↱		↔			↑	↱		↑	↱
Volume (vph)	0	279	20	100	122	4	0	497	91	0	440	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.90		0.99			1.00	0.84		1.00	0.90
Flpb, ped/bikes		1.00	1.00		0.98			1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00			1.00	0.85		1.00	0.85
Flt Protected		1.00	1.00		0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1667	1308		1581			934	1204		1520	1337
Flt Permitted		1.00	1.00		0.55			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1667	1308		889			934	1204		1520	1337
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	0	307	22	110	134	4	0	546	100	0	484	101
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	307	22	0	248	0	0	546	100	0	484	101
Confl. Peds. (#/hr)	159		27	27		159			52			28
Heavy Vehicles (%)	0%	8%	5%	6%	11%	0%	0%	8%	3%	50%	3%	0%
Parking (#/hr)								64			0	
Turn Type		NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases			4	8					2			6
Actuated Green, G (s)		33.0	33.0		33.0			58.0	58.0		58.0	58.0
Effective Green, g (s)		33.0	33.0		33.0			58.0	58.0		58.0	58.0
Actuated g/C Ratio		0.33	0.33		0.33			0.58	0.58		0.58	0.58
Clearance Time (s)		5.0	5.0		5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		550	431		293			541	698		881	775
v/s Ratio Prot		0.18						c0.58			0.32	
v/s Ratio Perm			0.02		c0.28				0.08			0.08
v/c Ratio		0.56	0.05		0.85			1.01	0.14		0.55	0.13
Uniform Delay, d1		27.5	22.8		31.1			21.0	9.6		12.9	9.5
Progression Factor		1.00	1.00		1.00			0.69	0.64		0.56	0.69
Incremental Delay, d2		4.1	0.2		19.6			38.0	0.4		1.9	0.3
Delay (s)		31.6	23.1		50.8			52.4	6.5		9.1	6.8
Level of Service		C	C		D			D	A		A	A
Approach Delay (s)		31.0			50.8			45.3			8.7	
Approach LOS		C			D			D			A	

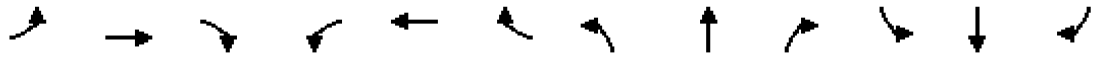
Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	4	130	24	10	18	0	483	6	0	401	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.90			0.95			1.00			1.00	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1397			1103			1228			1513	
Flt Permitted		0.93			0.83			1.00			1.00	
Satd. Flow (perm)		1317			940			1228			1513	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	37	4	143	26	11	20	0	531	7	0	441	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	184	0	0	57	0	0	538	0	0	450	0
Confl. Peds. (#/hr)	1		20	20		1			4			1
Heavy Vehicles (%)	0%	0%	1%	42%	0%	56%	8%	9%	0%	0%	3%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		19.8			19.8			72.2			72.2	
Effective Green, g (s)		19.8			19.8			72.2			72.2	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		260			186			886			1092	
v/s Ratio Prot								c0.44			0.30	
v/s Ratio Perm		c0.14			0.06							
v/c Ratio		0.71			0.31			0.61			0.41	
Uniform Delay, d1		37.4			34.2			6.9			5.5	
Progression Factor		1.00			1.00			0.39			1.11	
Incremental Delay, d2		10.6			2.0			1.9			0.9	
Delay (s)		48.0			36.2			4.6			7.0	
Level of Service		D			D			A			A	
Approach Delay (s)		48.0			36.2			4.6			7.0	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.7%	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												
Volume (vph)	84	684	33	92	455	19	0	521	88	0	516	28
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.97		1.00	0.94
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1338	3923		1507	4313			1129	971		1166	910
Flt Permitted	0.36	1.00		0.20	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	509	3923		318	4313			1129	971		1166	910
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	92	752	36	101	500	21	0	573	97	0	567	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	92	788	0	101	521	0	0	573	97	0	567	31
Confl. Peds. (#/hr)			13	13					10			27
Heavy Vehicles (%)	15%	12%	6%	2%	2%	0%	2%	14%	8%	0%	3%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		42	42
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.6	25.0		30.6	25.0			58.4	58.4		58.4	58.4
Effective Green, g (s)	30.6	25.0		30.6	25.0			58.4	58.4		58.4	58.4
Actuated g/C Ratio	0.31	0.25		0.31	0.25			0.58	0.58		0.58	0.58
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	202	980		163	1078			659	567		680	531
v/s Ratio Prot	0.03	c0.20		c0.03	0.12			c0.51			0.49	
v/s Ratio Perm	0.11			0.15					0.10			0.03
v/c Ratio	0.46	0.80		0.62	0.48			0.87	0.17		0.83	0.06
Uniform Delay, d1	26.0	35.2		26.5	32.0			17.6	9.6		16.9	9.0
Progression Factor	1.00	1.00		1.00	1.00			1.25	1.32		0.64	0.57
Incremental Delay, d2	1.6	7.0		6.8	1.6			11.7	0.5		11.0	0.2
Delay (s)	27.6	42.2		33.3	33.5			33.6	13.2		21.8	5.3
Level of Service	C	D		C	C			C	B		C	A
Approach Delay (s)		40.7			33.5			30.6			21.0	
Approach LOS		D			C			C			C	

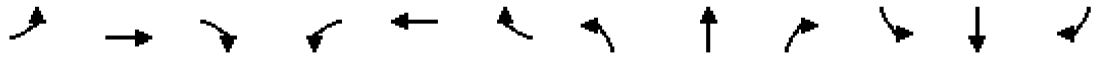
Intersection Summary			
HCM 2000 Control Delay	32.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	72	11	50	24	44	0	543	30	0	579	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	11	11	11	11	11	11	11	11	11
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.97			1.00			1.00	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.99			0.95			0.99			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1928			1549			1103			1386	
Flt Permitted		0.87			0.85			1.00			1.00	
Satd. Flow (perm)		1718			1340			1103			1386	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	54	79	12	55	26	48	0	597	33	0	636	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	145	0	0	129	0	0	630	0	0	648	0
Confl. Peds. (#/hr)	24		9	9		24			9			19
Heavy Vehicles (%)	0%	0%	9%	0%	0%	2%	4%	5%	0%	1%	5%	9%
Parking (#/hr)								46			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			70.0			70.0	
Effective Green, g (s)		24.0			24.0			70.0			70.0	
Actuated g/C Ratio		0.24			0.24			0.70			0.70	
Clearance Time (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		412			321			772			970	
v/s Ratio Prot								c0.57			0.47	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.35			0.40			0.82			0.67	
Uniform Delay, d1		31.5			32.0			10.5			8.5	
Progression Factor		1.00			1.00			0.40			0.65	
Incremental Delay, d2		2.4			3.7			8.5			2.5	
Delay (s)		33.9			35.7			12.7			8.0	
Level of Service		C			D			B			A	
Approach Delay (s)		33.9			35.7			12.7			8.0	
Approach LOS		C			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	56.2%	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												
Volume (vph)	13	372	83	0	176	51	0	423	13	0	594	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	11	11	11	11	11	8	11	11	11
Total Lost time (s)	5.0	5.0			5.0	3.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.93		1.00			1.00	
Flpb, ped/bikes	0.95	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.97			1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1522	1601			1642	1252		1593			1520	
Flt Permitted	0.64	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (perm)	1019	1601			1642	1252		1593			1520	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.90	0.91	0.91	0.90	0.91	0.91
Adj. Flow (vph)	14	409	91	0	193	56	0	465	14	0	653	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	14	500	0	0	193	56	0	479	0	0	653	0
Confl. Peds. (#/hr)	40		24			40			4			11
Heavy Vehicles (%)	0%	5%	5%	0%	6%	10%	8%	9%	0%	5%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA			NA	custom		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					3 8						
Actuated Green, G (s)	36.0	36.0			40.0	40.0		50.0			50.0	
Effective Green, g (s)	36.0	36.0			40.0	40.0		50.0			50.0	
Actuated g/C Ratio	0.36	0.36			0.40	0.40		0.50			0.50	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)	366	576			656	500		796			760	
v/s Ratio Prot		c0.31			c0.12			0.30			c0.43	
v/s Ratio Perm	0.01					0.04						
v/c Ratio	0.04	0.87			0.29	0.11		0.60			0.86	
Uniform Delay, d1	20.8	29.8			20.4	18.8		17.9			21.9	
Progression Factor	1.00	1.00			1.00	1.00		0.55			1.17	
Incremental Delay, d2	0.2	16.2			1.1	0.5		2.2			10.2	
Delay (s)	21.0	45.9			21.5	19.3		12.1			35.8	
Level of Service	C	D			C	B		B			D	
Approach Delay (s)		45.3			21.0			12.1			35.8	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

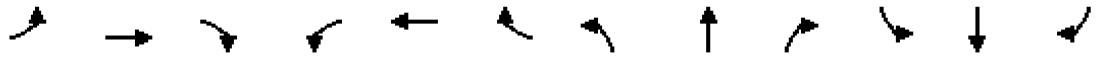
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	131	706	54	141	442	42	0	525	141	0	454	113
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.83	1.00	1.00	0.79		1.00	0.82		1.00	0.87
Flpb, ped/bikes	0.90	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1459	3179	1200	1631	3160	1124		1395	1149		1550	1147
Flt Permitted	0.48	1.00	1.00	0.15	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	729	3179	1200	253	3160	1124		1395	1149		1550	1147
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.93	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	144	776	59	155	486	46	0	577	155	0	499	124
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	144	776	59	155	486	46	0	577	155	0	499	124
Confl. Peds. (#/hr)	102		77	77		102			145			102
Confl. Bikes (#/hr)			7			1			1			1
Heavy Vehicles (%)	2%	4%	2%	1%	1%	0%	7%	6%	6%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								10			0	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	29.0	29.0	29.0	39.0	39.0	39.0		51.0	51.0		51.0	51.0
Effective Green, g (s)	29.0	29.0	29.0	39.0	39.0	39.0		51.0	51.0		51.0	51.0
Actuated g/C Ratio	0.29	0.29	0.29	0.39	0.39	0.39		0.51	0.51		0.51	0.51
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	211	921	348	195	1232	438		711	585		790	584
v/s Ratio Prot		0.24		c0.06	0.15			c0.41			0.32	
v/s Ratio Perm	0.20		0.05	c0.25		0.04			0.13			0.11
v/c Ratio	0.68	0.84	0.17	0.79	0.39	0.11		0.81	0.26		0.63	0.21
Uniform Delay, d1	31.4	33.4	26.5	22.9	22.0	19.4		20.5	13.9		17.7	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.03	1.00		0.24	0.28
Incremental Delay, d2	16.4	9.3	1.1	27.5	0.9	0.5		8.9	1.0		1.9	0.4
Delay (s)	47.9	42.6	27.6	50.5	22.9	19.9		30.0	14.9		6.1	4.2
Level of Service	D	D	C	D	C	B		C	B		A	A
Approach Delay (s)		42.5			28.9			26.8			5.7	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

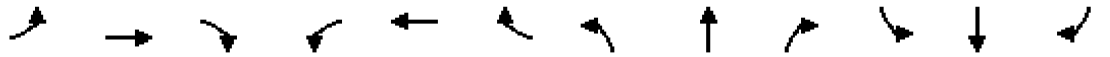
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	170	476	52	50	247	29	0	402	118	0	494	83
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	9	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	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	0.90		1.00	0.91		1.00	0.96
Flpb, ped/bikes	0.95	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1523	1740	1400	1480	1647	1083		1243	1320		1255	1404
Flt Permitted	0.44	1.00	1.00	0.14	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	711	1740	1400	222	1647	1083		1243	1320		1255	1404
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	187	523	57	55	271	32	0	442	130	0	543	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	187	523	57	55	271	32	0	442	130	0	543	91
Confl. Peds. (#/hr)	34		6	6		34			20			6
Heavy Vehicles (%)	0%	0%	2%	4%	2%	14%	0%	12%	2%	2%	4%	1%
Parking (#/hr)								20			30	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.3	34.3	34.3	34.3	34.3	34.3		59.7	59.7		59.7	59.7
Effective Green, g (s)	34.3	34.3	34.3	34.3	34.3	34.3		59.7	59.7		59.7	59.7
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.60	0.60		0.60	0.60
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	243	596	480	76	564	371		742	788		749	838
v/s Ratio Prot		c0.30			0.16			0.36			c0.43	
v/s Ratio Perm	0.26		0.04	0.25		0.03			0.10			0.06
v/c Ratio	0.77	0.88	0.12	0.72	0.48	0.09		0.60	0.16		0.72	0.11
Uniform Delay, d1	29.3	30.9	22.5	28.7	25.8	22.2		12.6	9.0		14.3	8.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.80	0.70
Incremental Delay, d2	13.6	13.7	0.1	28.6	0.6	0.1		3.5	0.5		5.2	0.2
Delay (s)	43.0	44.6	22.6	57.3	26.5	22.3		16.1	9.5		16.6	6.3
Level of Service	D	D	C	E	C	C		B	A		B	A
Approach Delay (s)		42.6			30.9			14.6			15.2	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



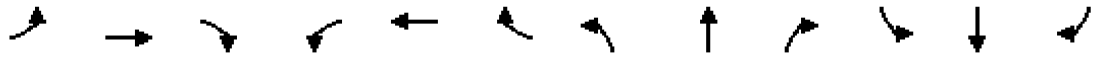
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	584	67	43	453	19	0	403	71	0	551	102
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.96		1.00	0.94
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1588	3127		1598	3221			1389	1380		1550	1395
Flt Permitted	0.39	1.00		0.27	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	657	3127		448	3221			1389	1380		1550	1395
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	151	642	74	47	498	21	0	443	78	0	605	112
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	151	716	0	47	519	0	0	443	78	0	605	112
Confl. Peds. (#/hr)	2		103	103		2			37			61
Heavy Vehicles (%)	4%	3%	1%	0%	2%	0%	0%	4%	3%	1%	1%	0%
Parking (#/hr)								14			0	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	23.5	23.5		23.5	23.5			33.5	33.5		33.5	33.5
Effective Green, g (s)	23.5	23.5		23.5	23.5			33.5	33.5		33.5	33.5
Actuated g/C Ratio	0.36	0.36		0.36	0.36			0.52	0.52		0.52	0.52
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	237	1130		161	1164			715	711		798	718
v/s Ratio Prot		0.23			0.16			0.32			c0.39	
v/s Ratio Perm	c0.23			0.10					0.06			0.08
v/c Ratio	0.64	0.63		0.29	0.45			0.62	0.11		0.76	0.16
Uniform Delay, d1	17.2	17.2		14.8	15.8			11.2	8.1		12.5	8.3
Progression Factor	1.00	1.00		1.00	1.00			0.80	0.62		1.00	1.00
Incremental Delay, d2	5.5	1.2		1.0	0.3			3.1	0.2		6.7	0.5
Delay (s)	22.7	18.4		15.8	16.1			12.0	5.3		19.2	8.8
Level of Service	C	B		B	B			B	A		B	A
Approach Delay (s)		19.1			16.0			11.0			17.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.2%	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												
Volume (vph)	43	56	26	12	17	19	0	517	9	0	579	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.95			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1539			1471			1379			1427	
Flt Permitted		0.89			0.93			1.00			1.00	
Satd. Flow (perm)		1394			1382			1379			1427	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	47	62	29	13	19	21	0	568	10	0	636	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	138	0	0	53	0	0	578	0	0	644	0
Confl. Peds. (#/hr)	15		12	12		15			10			3
Heavy Vehicles (%)	2%	4%	0%	0%	0%	11%	0%	7%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		14	14
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			39.0			39.0	
Effective Green, g (s)		18.0			18.0			39.0			39.0	
Actuated g/C Ratio		0.28			0.28			0.60			0.60	
Clearance Time (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		386			382			827			856	
v/s Ratio Prot								0.42			c0.45	
v/s Ratio Perm		c0.10			0.04							
v/c Ratio		0.36			0.14			0.70			0.75	
Uniform Delay, d1		18.9			17.7			9.0			9.5	
Progression Factor		1.00			1.00			0.74			0.79	
Incremental Delay, d2		2.6			0.8			3.4			5.2	
Delay (s)		21.4			18.4			10.1			12.7	
Level of Service		C			B			B			B	
Approach Delay (s)		21.4			18.4			10.1			12.7	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.1%	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												
Volume (vph)	98	837	179	64	423	35	0	488	69	0	475	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00			1.00	0.97		1.00	0.91
Flpb, ped/bikes	0.99	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.97		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1510	2876		1457	2915			1325	1337		1535	1179
Flt Permitted	0.40	1.00		0.18	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	643	2876		281	2915			1325	1337		1535	1179
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	108	920	197	70	465	38	0	536	76	0	522	52
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	108	1117	0	70	503	0	0	536	76	0	522	52
Confl. Peds. (#/hr)	41		61	61		41			16			58
Heavy Vehicles (%)	5%	6%	5%	8%	8%	6%	10%	9%	7%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								14			0	0
Turn Type	pm+pt	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.6	29.6		21.8	21.8			27.4	27.4		27.4	27.4
Effective Green, g (s)	30.6	29.6		21.8	21.8			27.4	27.4		27.4	27.4
Actuated g/C Ratio	0.47	0.46		0.34	0.34			0.42	0.42		0.42	0.42
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	366	1309		94	977			558	563		647	496
v/s Ratio Prot	0.02	c0.39			0.17			c0.40			0.34	
v/s Ratio Perm	0.12			0.25					0.06			0.04
v/c Ratio	0.30	0.85		0.74	0.51			0.96	0.13		0.81	0.10
Uniform Delay, d1	12.9	15.8		19.1	17.4			18.3	11.5		16.5	11.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		0.82	0.57
Incremental Delay, d2	0.5	7.2		41.1	1.9			29.5	0.5		7.7	0.3
Delay (s)	13.3	23.0		60.3	19.3			47.8	12.0		21.2	6.8
Level of Service	B	C		E	B			D	B		C	A
Approach Delay (s)		22.1			24.3			43.3			19.9	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	26.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	48	29	0	466	498	77
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.95			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.95			1.00	0.98	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1231			1450	1468	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1231			1450	1468	
Peak-hour factor, PHF	0.91	0.91	0.97	0.91	0.91	0.91
Adj. Flow (vph)	53	32	0	512	547	85
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	85	0	0	512	632	0
Confl. Peds. (#/hr)	23	12				
Heavy Vehicles (%)	29%	14%	21%	8%	5%	3%
Parking (#/hr)				0	0	
Turn Type	NA			NA	NA	
Protected Phases	4			2 10	6	
Permitted Phases						
Actuated Green, G (s)	16.0			78.0	70.0	
Effective Green, g (s)	16.0			78.0	70.0	
Actuated g/C Ratio	0.16			0.78	0.70	
Clearance Time (s)	3.0				3.0	
Lane Grp Cap (vph)	196			1131	1027	
v/s Ratio Prot	c0.07			c0.35	c0.43	
v/s Ratio Perm						
v/c Ratio	0.43			0.45	0.62	
Uniform Delay, d1	37.9			3.7	7.9	
Progression Factor	1.00			0.09	1.00	
Incremental Delay, d2	6.8			1.1	2.8	
Delay (s)	44.8			1.4	10.7	
Level of Service	D			A	B	
Approach Delay (s)	44.8			1.4	10.7	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	15	466	67	0	510
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	10	11	11	11	11
Total Lost time (s)	3.0		3.0			3.0
Lane Util. Factor	1.00		1.00			1.00
Frpb, ped/bikes	0.85		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	0.92		0.98			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1043		1429			1425
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1043		1429			1425
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.99	0.91
Adj. Flow (vph)	11	16	512	74	0	560
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	27	0	586	0	0	560
Confl. Peds. (#/hr)	12	23				
Heavy Vehicles (%)	30%	20%	8%	6%	0%	5%
Parking (#/hr)			0			8
Turn Type	NA		NA			NA
Protected Phases	8		2			6 14
Permitted Phases						
Actuated Green, G (s)	16.0		70.0			78.0
Effective Green, g (s)	16.0		70.0			78.0
Actuated g/C Ratio	0.16		0.70			0.78
Clearance Time (s)	3.0		3.0			
Lane Grp Cap (vph)	166		1000			1111
v/s Ratio Prot	c0.03		c0.41			c0.39
v/s Ratio Perm						
v/c Ratio	0.16		0.59			0.50
Uniform Delay, d1	36.2		7.6			4.0
Progression Factor	1.00		0.68			0.16
Incremental Delay, d2	2.1		1.5			1.3
Delay (s)	38.3		6.7			1.9
Level of Service	D		A			A
Approach Delay (s)	38.3		6.7			1.9
Approach LOS	D		A			A

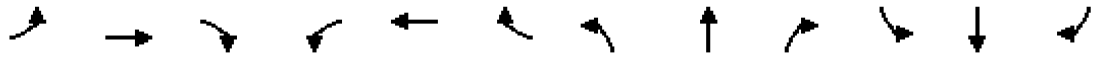
Intersection Summary			
HCM 2000 Control Delay	5.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	280	37	6	158	42	0	490	33	0	513	15
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.99			0.99			0.99			1.00	0.69
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.97			0.99			1.00	0.85
Flt Protected		0.99			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1625			1602			1131			1689	915
Flt Permitted		0.95			0.99			1.00			1.00	1.00
Satd. Flow (perm)		1553			1584			1131			1689	915
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.93	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	41	308	41	7	174	46	0	538	36	0	564	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	390	0	0	227	0	0	574	0	0	564	16
Confl. Peds. (#/hr)	10		36	36		10			34			77
Confl. Bikes (#/hr)			3						2			6
Heavy Vehicles (%)	14%	7%	3%	67%	6%	7%	0%	9%	6%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								36	36			0
Turn Type	Perm	NA		Perm	NA			NA			NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8								6
Actuated Green, G (s)		30.0			30.0			62.0			62.0	62.0
Effective Green, g (s)		30.0			30.0			62.0			62.0	62.0
Actuated g/C Ratio		0.30			0.30			0.62			0.62	0.62
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		465			475			701			1047	567
v/s Ratio Prot								c0.51			0.33	
v/s Ratio Perm		c0.25			0.14							0.02
v/c Ratio		0.84			0.48			0.82			0.54	0.03
Uniform Delay, d1		32.7			28.6			14.7			10.8	7.3
Progression Factor		1.00			1.00			0.46			0.47	0.62
Incremental Delay, d2		16.4			3.4			9.8			1.8	0.1
Delay (s)		49.2			32.0			16.5			6.9	4.7
Level of Service		D			C			B			A	A
Approach Delay (s)		49.2			32.0			16.5			6.9	
Approach LOS		D			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

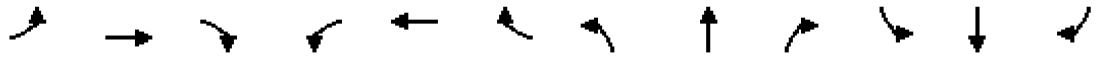


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	8	139	10	0	640	0	0	558	106
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.96		1.00			0.98	
Flpb, ped/bikes				0.99	1.00	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.98	
Flt Protected				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)				1588	3192	1242		2935			2704	
Flt Permitted				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (perm)				1588	3192	1242		2935			2704	
Peak-hour factor, PHF	0.91	0.97	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	0	0	0	9	153	11	0	703	0	0	613	116
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	9	153	11	0	703	0	0	729	0
Confl. Peds. (#/hr)			4	4		23			27			56
Confl. Bikes (#/hr)			1			2						3
Heavy Vehicles (%)	9%	0%	0%	0%	0%	10%	3%	7%	0%	0%	4%	2%
Parking (#/hr)								0			26	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				27.0	27.0	27.0		65.0			65.0	
Effective Green, g (s)				27.0	27.0	27.0		65.0			65.0	
Actuated g/C Ratio				0.27	0.27	0.27		0.65			0.65	
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Grp Cap (vph)				428	861	335		1907			1757	
v/s Ratio Prot					c0.05			0.24			c0.27	
v/s Ratio Perm				0.01		0.01						
v/c Ratio				0.02	0.18	0.03		0.37			0.41	
Uniform Delay, d1				26.8	28.0	26.9		8.1			8.4	
Progression Factor				1.00	1.00	1.00		0.44			0.70	
Incremental Delay, d2				0.1	0.5	0.2		0.5			0.7	
Delay (s)				26.9	28.4	27.1		4.1			6.5	
Level of Service				C	C	C		A			A	
Approach Delay (s)		0.0			28.3			4.1			6.5	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
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												
Volume (vph)	108	278	42	0	0	0	0	530	65	0	464	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.99						0.98			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		2873						2591			2589	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		2873						2591			2589	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	119	305	46	0	0	0	0	582	71	0	510	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	470	0	0	0	0	0	653	0	0	510	0
Confl. Peds. (#/hr)	3		5			3			29			32
Confl. Bikes (#/hr)			4						2			2
Heavy Vehicles (%)	7%	3%	2%	0%	0%	0%	0%	7%	3%	3%	4%	0%
Parking (#/hr)								0			18	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		37.0						55.0			55.0	
Effective Green, g (s)		37.0						55.0			55.0	
Actuated g/C Ratio		0.37						0.55			0.55	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		1063						1425			1423	
v/s Ratio Prot								c0.25			0.20	
v/s Ratio Perm		0.16										
v/c Ratio		0.44						0.46			0.36	
Uniform Delay, d1		23.7						13.5			12.6	
Progression Factor		1.00						0.71			0.51	
Incremental Delay, d2		1.3						1.0			0.7	
Delay (s)		25.1						10.6			7.1	
Level of Service		C						B			A	
Approach Delay (s)		25.1			0.0			10.6			7.1	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
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												
Volume (vph)	48	324	39	20	218	73	0	407	3	0	556	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		2.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.98	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.96			1.00			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1513	2864		1569	2800			2906			3023	
Flt Permitted	0.53	1.00		0.46	1.00			1.00			1.00	
Satd. Flow (perm)	838	2864		762	2800			2906			3023	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	53	356	43	22	240	80	0	447	3	0	611	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	53	399	0	22	320	0	0	450	0	0	635	0
Confl. Peds. (#/hr)	16		23	23		16			17			25
Confl. Bikes (#/hr)			3			2						2
Heavy Vehicles (%)	4%	9%	10%	0%	10%	5%	17%	8%	0%	5%	3%	5%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		custom	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			3 8								
Actuated Green, G (s)	33.0	33.0		45.0	43.0			49.0			49.0	
Effective Green, g (s)	33.0	33.0		45.0	43.0			49.0			49.0	
Actuated g/C Ratio	0.33	0.33		0.45	0.43			0.49			0.49	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	276	945		342	1204			1423			1481	
v/s Ratio Prot		c0.14			c0.11			0.15			c0.21	
v/s Ratio Perm	0.06			0.03								
v/c Ratio	0.19	0.42		0.06	0.27			0.32			0.43	
Uniform Delay, d1	24.0	26.1		15.6	18.3			15.4			16.5	
Progression Factor	1.00	1.00		1.00	1.00			0.50			0.43	
Incremental Delay, d2	1.5	1.4		0.4	0.5			0.4			0.9	
Delay (s)	25.5	27.5		15.9	18.9			8.1			8.0	
Level of Service	C	C		B	B			A			A	
Approach Delay (s)		27.2			18.7			8.1			8.0	
Approach LOS		C			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

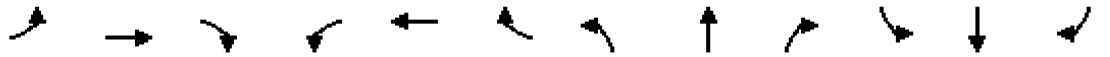
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	558	0	250	568	1	0	320	185	0	405	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.95			0.97	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1628	3288		1588	3143			2835			2897	
Flt Permitted	0.38	1.00		0.36	1.00			1.00			1.00	
Satd. Flow (perm)	646	3288		598	3143			2835			2897	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	176	613	0	275	624	1	0	352	203	0	445	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	176	613	0	275	625	0	0	555	0	0	570	0
Confl. Peds. (#/hr)	1		5	5		1			15			20
Confl. Bikes (#/hr)			3									2
Heavy Vehicles (%)	5%	4%	0%	4%	5%	100%	0%	9%	9%	0%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA		pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	47.0	47.0		64.0	63.0			29.0			29.0	
Effective Green, g (s)	47.0	47.0		64.0	63.0			29.0			29.0	
Actuated g/C Ratio	0.47	0.47		0.64	0.63			0.29			0.29	
Clearance Time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	303	1545		511	1980			822			840	
v/s Ratio Prot		0.19		c0.07	0.20			0.20			c0.20	
v/s Ratio Perm	c0.27			0.27								
v/c Ratio	0.58	0.40		0.54	0.32			0.68			0.68	
Uniform Delay, d1	19.3	17.3		15.6	8.5			31.3			31.4	
Progression Factor	1.00	1.00		1.00	1.00			0.91			0.97	
Incremental Delay, d2	7.9	0.8		4.0	0.4			4.1			4.1	
Delay (s)	27.2	18.0		19.6	9.0			32.6			34.6	
Level of Service	C	B		B	A			C			C	
Approach Delay (s)		20.1			12.2			32.6			34.6	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	23.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	11.0
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												
Volume (vph)	0	72	31	46	20	21	0	636	50	0	497	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.99			0.99			0.99			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.96			0.97			0.99			1.00	
Flt Protected		1.00			0.97			1.00			1.00	
Satd. Flow (prot)		1561			1439			2672			3019	
Flt Permitted		1.00			0.82			1.00			1.00	
Satd. Flow (perm)		1561			1210			2672			3019	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	79	34	51	22	23	0	699	55	0	546	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	113	0	0	96	0	0	754	0	0	547	0
Confl. Peds. (#/hr)	5		15	15		5			39			16
Confl. Bikes (#/hr)			2			1			1			
Heavy Vehicles (%)	0%	3%	0%	9%	10%	5%	0%	8%	2%	1%	4%	0%
Parking (#/hr)								24	24		0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.0			28.0			64.0			64.0	
Effective Green, g (s)		28.0			28.0			64.0			64.0	
Actuated g/C Ratio		0.28			0.28			0.64			0.64	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		437			338			1710			1932	
v/s Ratio Prot		0.07						c0.28			0.18	
v/s Ratio Perm					c0.08							
v/c Ratio		0.26			0.28			0.44			0.28	
Uniform Delay, d1		27.9			28.2			9.0			7.9	
Progression Factor		1.00			1.00			0.38			0.47	
Incremental Delay, d2		1.4			2.1			0.7			0.3	
Delay (s)		29.4			30.3			4.2			4.0	
Level of Service		C			C			A			A	
Approach Delay (s)		29.4			30.3			4.2			4.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.1%	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												
Volume (vph)	0	0	0	202	140	145	0	538	0	0	493	33
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					2717			2495			2858	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					2717			2495			2858	
Peak-hour factor, PHF	0.91	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	222	154	159	0	591	0	0	542	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	535	0	0	591	0	0	578	0
Confl. Peds. (#/hr)			53	53		32			25			45
Confl. Bikes (#/hr)			1			1			2			3
Heavy Vehicles (%)	6%	0%	0%	5%	6%	3%	0%	8%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								54			12	12
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					42.0			50.0			50.0	
Effective Green, g (s)					42.0			50.0			50.0	
Actuated g/C Ratio					0.42			0.50			0.50	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					1141			1247			1429	
v/s Ratio Prot								c0.24			0.20	
v/s Ratio Perm					0.20							
v/c Ratio					0.47			0.47			0.40	
Uniform Delay, d1					20.9			16.4			15.7	
Progression Factor					1.00			0.12			0.50	
Incremental Delay, d2					1.4			1.2			0.8	
Delay (s)					22.3			3.1			8.6	
Level of Service					C			A			A	
Approach Delay (s)		0.0			22.3			3.1			8.6	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.8%	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												
Volume (vph)	34	166	88	0	0	0	0	498	52	0	496	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0					4.0			4.0	
Lane Util. Factor		0.95	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.97					1.00			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			1.00	
Frt		1.00	0.85					0.99			1.00	
Flt Protected		0.99	1.00					1.00			1.00	
Satd. Flow (prot)		3217	1455					2966			2781	
Flt Permitted		0.99	1.00					1.00			1.00	
Satd. Flow (perm)		3217	1455					2966			2781	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.88	0.91	0.92	0.91	0.91	0.88	0.91	0.91
Adj. Flow (vph)	37	182	97	0	0	0	0	547	57	0	545	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	219	97	0	0	0	0	604	0	0	545	0
Confl. Peds. (#/hr)	12		16			12			9			17
Heavy Vehicles (%)	6%	5%	2%	2%	0%	0%	2%	10%	6%	4%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		20	
Turn Type	Perm	NA	Perm					NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4		4									
Actuated Green, G (s)		36.0	36.0					55.0			55.0	
Effective Green, g (s)		36.0	36.0					55.0			55.0	
Actuated g/C Ratio		0.36	0.36					0.55			0.55	
Clearance Time (s)		5.0	5.0					4.0			4.0	
Lane Grp Cap (vph)		1158	523					1631			1529	
v/s Ratio Prot								c0.20			0.20	
v/s Ratio Perm		0.07	0.07									
v/c Ratio		0.19	0.19					0.37			0.36	
Uniform Delay, d1		22.0	21.9					12.7			12.6	
Progression Factor		1.00	1.00					0.35			0.78	
Incremental Delay, d2		0.4	0.8					0.5			0.6	
Delay (s)		22.3	22.7					4.9			10.4	
Level of Service		C	C					A			B	
Approach Delay (s)		22.5			0.0			4.9			10.4	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

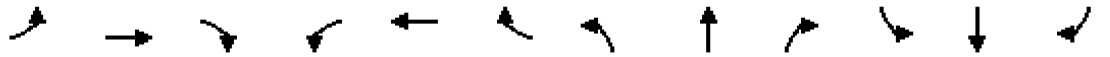
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	748	288	193	405	502	0	0	645	125
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				0.97	1.00	1.00	0.91	0.91			0.95	
Frpb, ped/bikes				1.00	1.00	0.96	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	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	0.99			1.00	
Satd. Flow (prot)				3175	1657	1353	1446	2735			2891	
Flt Permitted				0.95	1.00	1.00	0.95	0.66			1.00	
Satd. Flow (perm)				3175	1657	1353	1446	1834			2891	
Peak-hour factor, PHF	0.91	0.99	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	0	0	0	822	316	212	445	552	0	0	709	137
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	822	316	212	325	672	0	0	846	0
Confl. Peds. (#/hr)			2	2		19	13		9			13
Confl. Bikes (#/hr)						1			2			2
Heavy Vehicles (%)	7%	0%	0%	1%	5%	5%	4%	10%	0%	0%	5%	6%
Parking (#/hr)								0			0	
Turn Type				Split	NA	Perm	Prot	NA			NA	
Protected Phases				8	8		5	5 6			6 16	
Permitted Phases						8						
Actuated Green, G (s)				25.0	25.0	25.0	34.0	49.0			29.0	
Effective Green, g (s)				25.0	25.0	25.0	34.0	49.0			27.0	
Actuated g/C Ratio				0.25	0.25	0.25	0.34	0.49			0.27	
Clearance Time (s)				4.0	4.0	4.0	4.0					
Lane Grp Cap (vph)				793	414	338	491	1205			780	
v/s Ratio Prot				c0.26	0.19		c0.22	0.19			c0.29	
v/s Ratio Perm						0.16		0.08				
v/c Ratio				1.04	0.76	0.63	0.66	0.56			1.08	
Uniform Delay, d1				37.5	34.8	33.4	28.1	17.9			36.5	
Progression Factor				1.00	1.00	1.00	0.45	0.44			0.79	
Incremental Delay, d2				41.8	12.5	8.5	2.9	0.8			57.3	
Delay (s)				79.3	47.3	41.9	15.5	8.7			86.2	
Level of Service				E	D	D	B	A			F	
Approach Delay (s)		0.0			65.9			10.9			86.2	
Approach LOS		A			E			B			F	

Intersection Summary			
HCM 2000 Control Delay	54.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	95.1%	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												
Volume (vph)	150	172	221	0	0	0	0	808	253	259	880	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0					2.0		4.0	4.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes		1.00	0.98					0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.96		1.00	1.00	
Flt Protected		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3155	1471					2810		1589	3031	
Flt Permitted		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3155	1471					2810		1589	3031	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	165	189	243	0	0	0	0	888	278	285	967	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	354	243	0	0	0	0	1166	0	285	967	0
Confl. Peds. (#/hr)			6						3	3		2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	7%	5%	2%	1%	0%	0%	0%	8%	2%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Split	NA	Perm					NA		Prot	NA	
Protected Phases	4	4						2 12		1	1 2	
Permitted Phases			4									
Actuated Green, G (s)		26.0	26.0					42.0		22.0	42.0	
Effective Green, g (s)		26.0	26.0					42.0		22.0	42.0	
Actuated g/C Ratio		0.26	0.26					0.42		0.22	0.42	
Clearance Time (s)		4.0	4.0							4.0		
Lane Grp Cap (vph)		820	382					1180		349	1273	
v/s Ratio Prot		0.11						c0.41		c0.18	0.32	
v/s Ratio Perm			c0.17									
v/c Ratio		0.43	0.64					0.99		0.82	0.76	
Uniform Delay, d1		30.8	32.8					28.8		37.1	24.7	
Progression Factor		1.00	1.00					0.89		1.07	0.91	
Incremental Delay, d2		1.7	7.9					20.6		2.0	0.4	
Delay (s)		32.5	40.7					46.1		41.8	23.0	
Level of Service		C	D					D		D	C	
Approach Delay (s)		35.8			0.0			46.1			27.3	
Approach LOS		D			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

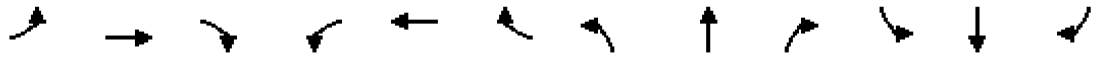
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	174	124	52	100	202	81	0	959	37	0	904	247
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	0.91	0.91		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.98			1.00			0.99	
Flpb, ped/bikes	0.99	1.00		0.95	1.00			1.00			1.00	
Frt	1.00	0.97		1.00	0.96			0.99			0.97	
Flt Protected	0.95	0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1493	2925		1512	2865			2868			2901	
Flt Permitted	0.43	0.75		0.58	1.00			1.00			1.00	
Satd. Flow (perm)	679	2221		927	2865			2868			2901	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	191	136	57	110	222	89	0	1054	41	0	993	271
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	120	264	0	110	311	0	0	1095	0	0	1264	0
Confl. Peds. (#/hr)	31		71	71		31			41			22
Confl. Bikes (#/hr)			1						2			
Heavy Vehicles (%)	0%	2%	0%	0%	7%	0%	0%	8%	8%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	pm+pt	NA		Perm	NA			NA			NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	33.0	33.0		22.0	22.0			57.0			57.0	
Effective Green, g (s)	33.0	33.0		22.0	22.0			57.0			57.0	
Actuated g/C Ratio	0.33	0.33		0.22	0.22			0.57			0.57	
Clearance Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	289	789		203	630			1634			1653	
v/s Ratio Prot	c0.03	0.03			0.11			0.38			c0.44	
v/s Ratio Perm	0.10	0.08		c0.12								
v/c Ratio	0.42	0.33		0.54	0.49			0.67			0.76	
Uniform Delay, d1	24.6	25.2		34.5	34.1			15.0			16.4	
Progression Factor	1.00	1.00		1.00	1.00			0.55			0.83	
Incremental Delay, d2	4.4	1.1		10.0	2.8			1.9			2.3	
Delay (s)	29.0	26.4		44.5	36.9			10.2			15.9	
Level of Service	C	C		D	D			B			B	
Approach Delay (s)		27.2			38.9			10.2			15.9	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.4%	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												
Volume (vph)	108	0	14	2	0	11	0	956	3	0	637	299
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Util. Factor	0.97		1.00		1.00			0.95			0.95	
Frpb, ped/bikes	1.00		0.99		0.98			1.00			0.98	
Flpb, ped/bikes	0.98		1.00		1.00			1.00			1.00	
Frt	1.00		0.85		0.88			1.00			0.95	
Flt Protected	0.95		1.00		0.99			1.00			1.00	
Satd. Flow (prot)	3044		1409		1550			2934			2874	
Flt Permitted	0.75		1.00		0.99			1.00			1.00	
Satd. Flow (perm)	2398		1409		1550			2934			2874	
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)	119	0	15	2	0	12	0	1051	3	0	700	329
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	119	0	15	0	14	0	0	1054	0	0	1029	0
Confl. Peds. (#/hr)	9		1	1		9			21			14
Confl. Bikes (#/hr)									4			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	7%	0%	0%	3%	0%
Parking (#/hr)								0			0	
Turn Type	custom		custom	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	28.0		28.0		28.0			63.0			63.0	
Effective Green, g (s)	28.0		28.0		28.0			63.0			63.0	
Actuated g/C Ratio	0.28		0.28		0.28			0.63			0.63	
Clearance Time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Grp Cap (vph)	671		394		434			1848			1810	
v/s Ratio Prot								c0.36			0.36	
v/s Ratio Perm	c0.05		0.01		0.01							
v/c Ratio	0.18		0.04		0.03			0.57			0.57	
Uniform Delay, d1	27.3		26.2		26.2			10.7			10.7	
Progression Factor	1.00		1.00		1.00			1.12			0.28	
Incremental Delay, d2	0.6		0.2		0.1			1.1			0.9	
Delay (s)	27.9		26.4		26.3			13.1			3.8	
Level of Service	C		C		C			B			A	
Approach Delay (s)		27.7			26.3			13.1			3.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.1%	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												
Volume (vph)	86	16	37	6	28	70	0	902	10	0	563	147
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.95			0.93			1.00			0.98	
Flpb, ped/bikes		0.96			0.99			1.00			1.00	
Frt		0.96			0.91			1.00			0.97	
Flt Protected		0.97			1.00			1.00			1.00	
Satd. Flow (prot)		1429			1411			2876			2821	
Flt Permitted		0.78			0.99			1.00			1.00	
Satd. Flow (perm)		1149			1395			2876			2821	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	95	18	41	7	31	77	0	991	11	0	619	162
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	154	0	0	115	0	0	1002	0	0	781	0
Confl. Peds. (#/hr)	60		129	129		60			39			14
Confl. Bikes (#/hr)			4			6			5			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	8%	20%	0%	6%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		30.0			30.0			62.0			62.0	
Effective Green, g (s)		30.0			30.0			62.0			62.0	
Actuated g/C Ratio		0.30			0.30			0.62			0.62	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		344			418			1783			1749	
v/s Ratio Prot								c0.35			0.28	
v/s Ratio Perm		c0.13			0.08							
v/c Ratio		0.45			0.28			0.56			0.45	
Uniform Delay, d1		28.3			26.7			11.1			10.0	
Progression Factor		1.00			1.00			1.11			0.26	
Incremental Delay, d2		4.2			1.6			1.2			0.7	
Delay (s)		32.5			28.3			13.5			3.3	
Level of Service		C			C			B			A	
Approach Delay (s)		32.5			28.3			13.5			3.3	
Approach LOS		C			C			B			A	

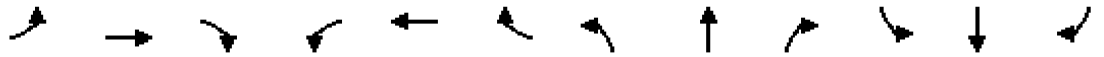
Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	123	37	44	254	68	0	656	95	0	312	192
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.85		0.98			0.97	
Flpb, ped/bikes	0.92	1.00	1.00	0.98	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.98			0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1472	1570	1369	1559	1600	1188		2747			2675	
Flt Permitted	0.46	1.00	1.00	0.65	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	716	1570	1369	1064	1600	1188		2747			2675	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	40	135	41	48	279	75	0	721	104	0	343	211
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	40	135	41	48	279	75	0	825	0	0	554	0
Confl. Peds. (#/hr)	98		20	20		98			23			15
Confl. Bikes (#/hr)			2			5			1			3
Heavy Vehicles (%)	0%	7%	0%	0%	5%	2%	0%	10%	8%	6%	9%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	36.0	36.0	36.0	36.0	36.0	36.0		55.0			55.0	
Effective Green, g (s)	36.0	36.0	36.0	36.0	36.0	36.0		55.0			55.0	
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.36	0.36		0.55			0.55	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Grp Cap (vph)	257	565	492	383	576	427		1510			1471	
v/s Ratio Prot		0.09			c0.17			c0.30			0.21	
v/s Ratio Perm	0.06		0.03	0.05		0.06						
v/c Ratio	0.16	0.24	0.08	0.13	0.48	0.18		0.55			0.38	
Uniform Delay, d1	21.7	22.4	21.1	21.4	24.8	21.9		14.5			12.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.72			0.29	
Incremental Delay, d2	1.3	1.0	0.3	0.7	2.9	0.9		0.6			0.7	
Delay (s)	23.0	23.4	21.4	22.1	27.7	22.8		11.1			4.4	
Level of Service	C	C	C	C	C	C		B			A	
Approach Delay (s)		23.0			26.1			11.1			4.4	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.3%	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												
Volume (vph)	131	862	108	126	1016	259	0	619	115	0	334	83
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.96		1.00	0.93		1.00	0.96
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1564	4305		1504	3099	1337		1491	1214		1657	1249
Flt Permitted	0.11	1.00		0.16	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	188	4305		255	3099	1337		1491	1214		1657	1249
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	144	947	119	138	1116	285	0	680	126	0	367	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	144	1066	0	138	1116	285	0	680	126	0	367	91
Confl. Peds. (#/hr)	28		24	24		28			52			29
Confl. Bikes (#/hr)						4			3			1
Heavy Vehicles (%)	2%	4%	4%	6%	3%	2%	5%	5%	1%	3%	5%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	42.0	35.0		42.0	35.0	35.0		45.0	45.0		45.0	45.0
Effective Green, g (s)	42.0	35.0		42.0	35.0	35.0		45.0	45.0		45.0	45.0
Actuated g/C Ratio	0.42	0.35		0.42	0.35	0.35		0.45	0.45		0.45	0.45
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	5.0	3.0		5.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	175	1506		194	1084	467		670	546		745	562
v/s Ratio Prot	c0.06	0.25		0.05	c0.36			c0.46			0.22	
v/s Ratio Perm	0.29			0.25		0.21			0.10			0.07
v/c Ratio	0.82	0.71		0.71	1.03	0.61		1.01	0.23		0.49	0.16
Uniform Delay, d1	22.8	28.1		19.8	32.5	26.9		27.5	16.9		19.4	16.3
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.72	0.58		0.88	0.96
Incremental Delay, d2	28.3	2.8		14.2	35.2	5.8		34.7	0.8		2.2	0.6
Delay (s)	51.2	30.9		34.0	67.7	32.7		54.6	10.6		19.4	16.3
Level of Service	D	C		C	E	C		D	B		B	B
Approach Delay (s)		33.3			58.2			47.7			18.8	
Approach LOS		C			E			D			B	

Intersection Summary			
HCM 2000 Control Delay	44.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	83.4%	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												
Volume (vph)	50	0	35	2	0	1	0	703	2	0	342	23
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.94			0.95			1.00			0.99	
Flt Protected		0.97			0.97			1.00			1.00	
Satd. Flow (prot)		1507			1624			1448			1464	
Flt Permitted		0.82			0.88			1.00			1.00	
Satd. Flow (perm)		1267			1470			1448			1464	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	55	0	38	2	0	1	0	773	2	0	376	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	93	0	0	3	0	0	775	0	0	401	0
Confl. Peds. (#/hr)	2		7	7		2			8			10
Confl. Bikes (#/hr)									2			1
Heavy Vehicles (%)	6%	0%	8%	0%	6%	0%	4%	8%	50%	0%	6%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		11.3			11.3			80.7			80.7	
Effective Green, g (s)		11.3			11.3			80.7			80.7	
Actuated g/C Ratio		0.11			0.11			0.81			0.81	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		143			166			1168			1181	
v/s Ratio Prot								c0.54			0.27	
v/s Ratio Perm		c0.07			0.00							
v/c Ratio		0.65			0.02			0.66			0.34	
Uniform Delay, d1		42.5			39.4			4.0			2.6	
Progression Factor		1.00			1.00			0.00			0.66	
Incremental Delay, d2		13.4			0.1			1.3			0.7	
Delay (s)		55.8			39.5			1.3			2.3	
Level of Service		E			D			A			A	
Approach Delay (s)		55.8			39.5			1.3			2.3	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.0%	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												
Volume (vph)	0	0	20	11	0	3	0	758	0	0	298	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.90			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.94			1.00			1.00	
Frt		0.86			0.97			1.00			1.00	
Flt Protected		1.00			0.96			1.00			1.00	
Satd. Flow (prot)		1406			1586			1297			1446	
Flt Permitted		1.00			0.86			1.00			1.00	
Satd. Flow (perm)		1406			1426			1297			1446	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	0	0	22	12	0	3	0	833	0	0	327	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	22	0	0	15	0	0	833	0	0	334	0
Confl. Peds. (#/hr)			30	30					6			9
Confl. Bikes (#/hr)			2						2			2
Heavy Vehicles (%)	7%	0%	0%	0%	0%	0%	2%	10%	0%	4%	8%	0%
Parking (#/hr)								16			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			72.0			72.0	
Effective Green, g (s)		20.0			20.0			72.0			72.0	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		281			285			933			1041	
v/s Ratio Prot		c0.02						c0.64			0.23	
v/s Ratio Perm					0.01							
v/c Ratio		0.08			0.05			0.89			0.32	
Uniform Delay, d1		32.5			32.3			11.0			5.1	
Progression Factor		1.00			1.00			1.00			0.80	
Incremental Delay, d2		0.5			0.4			12.7			0.8	
Delay (s)		33.1			32.7			23.7			4.9	
Level of Service		C			C			C			A	
Approach Delay (s)		33.1			32.7			23.7			4.9	
Approach LOS		C			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	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												
Volume (vph)	67	257	93	68	358	148	0	759	88	0	294	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.74		1.00	0.84		1.00	0.86
Flpb, ped/bikes	0.91	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1393	1600	1245	1501	1585	1039		1289	1115		1254	1065
Flt Permitted	0.19	1.00	1.00	0.37	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	280	1600	1245	586	1585	1039		1289	1115		1254	1065
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	74	282	102	75	393	163	0	834	97	0	323	63
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	74	282	102	75	393	163	0	834	97	0	323	63
Confl. Peds. (#/hr)	117		28	28		117			43			39
Confl. Bikes (#/hr)			6			3						1
Heavy Vehicles (%)	4%	5%	5%	3%	6%	2%	1%	8%	12%	6%	11%	19%
Parking (#/hr)								20			20	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	23.0	23.0	23.0	23.0	23.0	23.0		56.0	56.0		56.0	56.0
Effective Green, g (s)	23.0	23.0	23.0	23.0	23.0	23.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26		0.62	0.62		0.62	0.62
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	71	408	318	149	405	265		802	693		780	662
v/s Ratio Prot		0.18			0.25			c0.65			0.26	
v/s Ratio Perm	c0.26		0.08	0.13		0.16			0.09			0.06
v/c Ratio	1.04	0.69	0.32	0.50	0.97	0.62		1.04	0.14		0.41	0.10
Uniform Delay, d1	33.5	30.3	27.2	28.6	33.2	29.6		17.0	7.0		8.7	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.59	0.54		1.00	1.00
Incremental Delay, d2	119.0	9.3	2.6	11.6	37.9	10.2		30.7	0.2		1.6	0.3
Delay (s)	152.5	39.5	29.8	40.3	71.1	39.8		40.7	3.9		10.3	7.1
Level of Service	F	D	C	D	E	D		D	A		B	A
Approach Delay (s)		55.6			59.3			36.9			9.8	
Approach LOS		E			E			D			A	

Intersection Summary			
HCM 2000 Control Delay	42.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

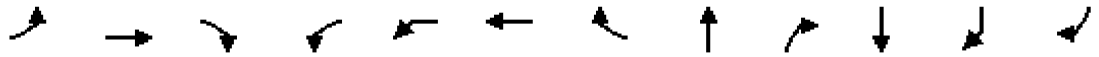
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	44	18	43	77	75	0	824	7	0	519	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.97			0.93			1.00			0.99	
Flpb, ped/bikes		0.95			0.97			1.00			1.00	
Frt		0.98			0.95			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1556			1487			1333			1234	
Flt Permitted		0.68			0.92			1.00			1.00	
Satd. Flow (perm)		1085			1380			1333			1234	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	64	48	20	47	85	82	0	905	8	0	570	40
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	132	0	0	214	0	0	913	0	0	610	0
Confl. Peds. (#/hr)	73		75	75		73			59			40
Confl. Bikes (#/hr)			1			1			1			2
Heavy Vehicles (%)	5%	0%	0%	0%	0%	6%	6%	8%	0%	0%	8%	3%
Parking (#/hr)								14			24	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		19.0			19.0			63.0			63.0	
Effective Green, g (s)		19.0			19.0			63.0			63.0	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		229			291			933			863	
v/s Ratio Prot								c0.68			0.49	
v/s Ratio Perm		0.12			c0.16							
v/c Ratio		0.58			0.74			0.98			0.71	
Uniform Delay, d1		31.9			33.2			12.9			8.0	
Progression Factor		1.00			1.00			0.70			0.63	
Incremental Delay, d2		10.2			15.2			18.9			4.7	
Delay (s)		42.0			48.4			28.0			9.8	
Level of Service		D			D			C			A	
Approach Delay (s)		42.0			48.4			28.0			9.8	
Approach LOS		D			D			C			A	

Intersection Summary			
HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.8%	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												
Volume (vph)	45	176	9	97	132	33	0	669	32	0	535	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			0.99	
Flpb, ped/bikes		0.99			0.97			1.00			1.00	
Frt		0.99			0.98			0.99			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1702			1582			1287			1317	
Flt Permitted		0.88			0.69			1.00			1.00	
Satd. Flow (perm)		1503			1106			1287			1317	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	49	193	10	107	145	36	0	735	35	0	588	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	252	0	0	288	0	0	770	0	0	612	0
Confl. Peds. (#/hr)	49		88	88		49			32			43
Confl. Bikes (#/hr)			2			1						1
Heavy Vehicles (%)	9%	1%	0%	4%	3%	13%	0%	7%	3%	2%	10%	0%
Parking (#/hr)								20			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			58.0			58.0	
Effective Green, g (s)		24.0			24.0			58.0			58.0	
Actuated g/C Ratio		0.27			0.27			0.64			0.64	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		400			294			829			848	
v/s Ratio Prot								c0.60			0.46	
v/s Ratio Perm		0.17			c0.26							
v/c Ratio		0.63			0.98			0.93			0.72	
Uniform Delay, d1		29.1			32.8			14.2			10.6	
Progression Factor		1.00			1.00			0.63			0.49	
Incremental Delay, d2		4.4			46.8			9.5			4.0	
Delay (s)		33.5			79.5			18.5			9.2	
Level of Service		C			E			B			A	
Approach Delay (s)		33.5			79.5			18.5			9.2	
Approach LOS		C			E			B			A	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	75	349	52	92	92	495	173	604	98	486	130	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	12	11	10	11	12	11	11	11	11	11
Total Lost time (s)	4.0	4.0			3.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95			1.00	0.95		0.95		1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	0.92		1.00		1.00	0.89	
Flpb, ped/bikes	0.90	1.00			1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.98			1.00	0.96		0.98		1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00		1.00		1.00	1.00	
Satd. Flow (prot)	1293	3016			1347	2678		2313		1402	962	
Flt Permitted	0.31	1.00			0.30	1.00		1.00		1.00	1.00	
Satd. Flow (perm)	420	3016			425	2678		2313		1402	962	
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)	82	384	57	101	101	544	190	664	108	534	143	29
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	82	441	0	0	202	734	0	772	0	534	172	0
Confl. Peds. (#/hr)	155						155				50	
Confl. Bikes (#/hr)							5		1		3	
Heavy Vehicles (%)	11%	8%	4%	15%	22%	8%	11%	7%	6%	8%	18%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	3	0
Parking (#/hr)								74	74	6	6	
Turn Type	Perm	NA		pm+pt	pm+pt	NA		NA		NA	Perm	
Protected Phases		4		3	3	8		2		6		
Permitted Phases	4			8	8						6	
Actuated Green, G (s)	20.5	20.5			29.5	29.5		32.0		32.0	32.0	
Effective Green, g (s)	20.5	20.5			29.5	29.5		32.0		32.0	32.0	
Actuated g/C Ratio	0.23	0.23			0.33	0.33		0.36		0.36	0.36	
Clearance Time (s)	4.0	4.0			3.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	95	686			200	877		822		498	342	
v/s Ratio Prot		0.15			c0.07	0.27		0.33		c0.38		
v/s Ratio Perm	0.20				c0.26						0.18	
v/c Ratio	0.86	0.64			1.01	0.84		0.94		1.07	0.50	
Uniform Delay, d1	33.4	31.4			29.2	28.0		28.1		29.0	22.8	
Progression Factor	1.00	1.00			1.00	1.00		0.96		0.86	0.93	
Incremental Delay, d2	50.8	2.1			66.2	7.0		17.5		54.9	0.8	
Delay (s)	84.2	33.5			95.4	35.0		44.4		79.7	21.9	
Level of Service	F	C			F	D		D		E	C	
Approach Delay (s)		41.5				48.1		44.4		65.6		
Approach LOS		D				D		D		E		

Intersection Summary			
HCM 2000 Control Delay	50.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NEL	NER	NER2
Lane Configurations			
Volume (vph)	208	204	37
Ideal Flow (vphpl)	1800	1800	1800
Lane Width	11	12	12
Total Lost time (s)	4.0	4.0	
Lane Util. Factor	1.00	0.88	
Frpb, ped/bikes	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	
Frt	1.00	0.85	
Flt Protected	0.95	1.00	
Satd. Flow (prot)	1401	2338	
Flt Permitted	0.95	1.00	
Satd. Flow (perm)	1401	2338	
Peak-hour factor, PHF	0.91	0.91	0.91
Adj. Flow (vph)	229	224	41
RTOR Reduction (vph)	0	0	0
Lane Group Flow (vph)	229	265	0
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Heavy Vehicles (%)	18%	15%	16%
Bus Blockages (#/hr)	0	0	0
Parking (#/hr)			
Turn Type	NA	Perm	
Protected Phases	9		
Permitted Phases		9	
Actuated Green, G (s)	16.5	16.5	
Effective Green, g (s)	16.5	16.5	
Actuated g/C Ratio	0.18	0.18	
Clearance Time (s)	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	
Lane Grp Cap (vph)	256	428	
v/s Ratio Prot	c0.16		
v/s Ratio Perm		0.11	
v/c Ratio	0.89	0.62	
Uniform Delay, d1	35.9	33.9	
Progression Factor	1.00	1.00	
Incremental Delay, d2	30.1	2.7	
Delay (s)	66.0	36.5	
Level of Service	E	D	
Approach Delay (s)	50.2		
Approach LOS	D		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	3	2	0	0	0	757	0	0	563	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			1.00			1.00			1.00	
Flpb, ped/bikes		0.99			0.94			1.00			1.00	
Frt		0.92			1.00			1.00			1.00	
Flt Protected		0.98			0.95			1.00			1.00	
Satd. Flow (prot)		1538			807			1596			1672	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		1569			850			1596			1672	
Peak-hour factor, PHF	0.91	0.94	0.91	0.91	0.94	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	2	0	3	2	0	0	0	832	0	0	619	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	5	0	0	2	0	0	832	0	0	621	0
Confl. Peds. (#/hr)	1		2	2		1			2			1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	100%	0%	0%	14%	9%	0%	25%	4%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		1.6			1.6			78.4			78.4	
Effective Green, g (s)		1.6			1.6			78.4			78.4	
Actuated g/C Ratio		0.02			0.02			0.87			0.87	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		27			15			1390			1456	
v/s Ratio Prot								c0.52			0.37	
v/s Ratio Perm		c0.00			0.00							
v/c Ratio		0.19			0.13			0.60			0.43	
Uniform Delay, d1		43.6			43.5			1.6			1.2	
Progression Factor		1.00			1.00			1.00			1.10	
Incremental Delay, d2		6.8			8.3			1.9			0.2	
Delay (s)		50.4			51.8			3.5			1.5	
Level of Service		D			D			A			A	
Approach Delay (s)		50.4			51.8			3.5			1.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	2.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	1	0	775	645	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)		4.0		5.0	5.0	
Lane Util. Factor		1.00		1.00	1.00	
Frpb, ped/bikes		1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00	
Frt		0.85		1.00	1.00	
Flt Protected		1.00		1.00	1.00	
Satd. Flow (prot)		765		1642	1582	
Flt Permitted		1.00		1.00	1.00	
Satd. Flow (perm)		765		1642	1582	
Peak-hour factor, PHF	0.91	0.91	0.96	0.91	0.91	0.91
Adj. Flow (vph)	0	1	0	852	709	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	1	0	852	709	0
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	100%	50%	6%	10%	0%
Bus Blockages (#/hr)	0	0	0	0	0	3
Turn Type		Perm		NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4				6
Actuated Green, G (s)		1.3		89.7	89.7	
Effective Green, g (s)		1.3		89.7	89.7	
Actuated g/C Ratio		0.01		0.90	0.90	
Clearance Time (s)		4.0		5.0	5.0	
Vehicle Extension (s)		3.0		3.0	3.0	
Lane Grp Cap (vph)		9		1472	1419	
v/s Ratio Prot				c0.52	0.45	
v/s Ratio Perm		c0.00				
v/c Ratio		0.11		0.58	0.50	
Uniform Delay, d1		48.8		1.1	1.0	
Progression Factor		1.00		0.56	1.00	
Incremental Delay, d2		5.4		1.0	1.3	
Delay (s)		54.2		1.6	2.2	
Level of Service		D		A	A	
Approach Delay (s)	54.2			1.6	2.2	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	1.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	32	17	0	745	574	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)	4.0	4.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.97		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1096	1012		1171	1138	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1096	1012		1171	1138	
Peak-hour factor, PHF	0.91	0.91	0.92	0.91	0.91	0.91
Adj. Flow (vph)	35	19	0	819	631	20
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	35	19	0	819	651	0
Confl. Peds. (#/hr)		1				3
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	56%	47%	29%	4%	7%	39%
Parking (#/hr)				40	38	
Turn Type	NA	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Actuated Green, G (s)	6.3	6.3		84.7	84.7	
Effective Green, g (s)	6.3	6.3		84.7	84.7	
Actuated g/C Ratio	0.06	0.06		0.85	0.85	
Clearance Time (s)	4.0	4.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	69	63		991	963	
v/s Ratio Prot	c0.03			c0.70	0.57	
v/s Ratio Perm		0.02				
v/c Ratio	0.51	0.30		0.83	0.68	
Uniform Delay, d1	45.3	44.7		3.9	2.7	
Progression Factor	1.00	1.00		0.99	0.83	
Incremental Delay, d2	5.8	2.7		4.6	3.4	
Delay (s)	51.1	47.4		8.4	5.7	
Level of Service	D	D		A	A	
Approach Delay (s)	49.8			8.4	5.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

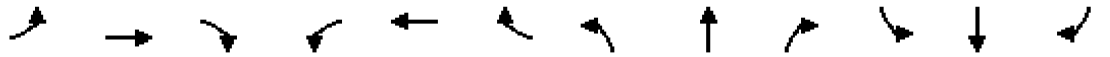
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	388	0	187	26	0	16	0	471	16	0	467	182
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0			12.0			12.0	12.0
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	0.98
Flpb, ped/bikes	1.00		1.00		1.00			1.00			1.00	1.00
Frt	1.00		0.85		0.95			1.00			1.00	0.85
Flt Protected	0.95		1.00		0.97			1.00			1.00	1.00
Satd. Flow (prot)	1605		1222		1159			1631			1611	1352
Flt Permitted	0.95		1.00		0.97			1.00			1.00	1.00
Satd. Flow (perm)	1605		1222		1159			1631			1611	1352
Peak-hour factor, PHF	0.91	0.96	0.91	0.91	0.96	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	426	0	205	29	0	18	0	518	18	0	513	200
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	426	0	205	0	47	0	0	536	0	0	513	200
Confl. Peds. (#/hr)									47			1
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	0%	21%	31%	0%	62%	0%	5%	31%	82%	8%	7%
Turn Type	Split		Perm	Split	NA			NA		pm+pt	NA	Perm
Protected Phases	4	4		8	8			2		1	6	
Permitted Phases			4							6		6
Actuated Green, G (s)	28.0		28.0		6.3			45.7			45.7	45.7
Effective Green, g (s)	28.0		28.0		6.3			45.7			45.7	45.7
Actuated g/C Ratio	0.28		0.28		0.06			0.46			0.46	0.46
Clearance Time (s)	4.0		4.0		4.0			12.0			12.0	12.0
Vehicle Extension (s)	3.0		3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	449		342		73			745			736	617
v/s Ratio Prot	c0.27				c0.04			c0.33			0.32	
v/s Ratio Perm			0.17									0.15
v/c Ratio	0.95		0.60		0.64			0.72			0.70	0.32
Uniform Delay, d1	35.3		31.1		45.8			22.0			21.6	17.3
Progression Factor	1.00		1.00		1.00			1.09			0.89	0.87
Incremental Delay, d2	31.4		7.6		17.8			3.8			4.5	1.1
Delay (s)	66.7		38.7		63.6			27.6			23.8	16.3
Level of Service	E		D		E			C			C	B
Approach Delay (s)		57.6			63.6			27.6			21.7	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	70.0%	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												
Volume (vph)	172	1087	24	78	630	77	0	368	131	0	294	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	0.98			0.96			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1604	4630		1573	4323			1406			1523	
Flt Permitted	0.25	1.00		0.14	1.00			1.00			1.00	
Satd. Flow (perm)	417	4630		227	4323			1406			1523	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	189	1195	26	86	692	85	0	404	144	0	323	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	189	1221	0	86	777	0	0	548	0	0	389	0
Confl. Peds. (#/hr)	5		32	32		5			27			19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	3%	2%	8%	5%	4%	4%	100%	7%	5%	7%	12%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			18
Turn Type	pm+pt	NA		pm+pt	NA			NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	45.6	37.0		39.2	33.6			44.4			44.4	
Effective Green, g (s)	45.6	37.0		39.2	33.6			44.4			44.4	
Actuated g/C Ratio	0.46	0.37		0.39	0.34			0.44			0.44	
Clearance Time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Vehicle Extension (s)	5.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	296	1713		164	1452			624			676	
v/s Ratio Prot	c0.06	c0.26		0.03	0.18			c0.39			0.26	
v/s Ratio Perm	0.23			0.18								
v/c Ratio	0.64	0.71		0.52	0.54			0.88			0.58	
Uniform Delay, d1	17.6	27.0		20.6	26.9			25.3			20.8	
Progression Factor	1.00	1.00		1.00	1.00			0.82			0.82	
Incremental Delay, d2	6.2	1.4		3.0	1.4			15.3			2.7	
Delay (s)	23.8	28.4		23.6	28.3			36.1			19.6	
Level of Service	C	C		C	C			D			B	
Approach Delay (s)		27.8			27.8			36.1			19.6	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM 2000 Control Delay	28.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	80.9%	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												
Volume (vph)	0	0	0	31	22	9	111	476	16	0	270	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	14	12	12	11	12	11	11	11	11	11	11
Total Lost time (s)					4.0	4.0	2.0	4.0			4.0	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frpb, ped/bikes					1.00	0.97	1.00	1.00			0.99	
Flpb, ped/bikes					0.98	1.00	0.99	1.00			1.00	
Frt					1.00	0.85	1.00	1.00			0.98	
Flt Protected					0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1600	1490	1289	1616			1500	
Flt Permitted					0.97	1.00	0.52	1.00			1.00	
Satd. Flow (perm)					1600	1490	707	1616			1500	
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)	0	0	0	34	24	10	122	523	18	0	297	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	58	10	122	541	0	0	363	0
Confl. Peds. (#/hr)	1		5	5		1	17		6			17
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	9%	0%	27%	7%	6%	3%	13%	8%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Actuated Green, G (s)					7.9	7.9	86.1	84.1			71.1	
Effective Green, g (s)					7.9	7.9	86.1	84.1			71.1	
Actuated g/C Ratio					0.08	0.08	0.86	0.84			0.71	
Clearance Time (s)					4.0	4.0	2.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					126	117	672	1359			1066	
v/s Ratio Prot							0.02	c0.33			0.24	
v/s Ratio Perm					0.04	0.01	0.14					
v/c Ratio					0.46	0.09	0.18	0.40			0.34	
Uniform Delay, d1					44.0	42.7	1.8	1.9			5.5	
Progression Factor					1.00	1.00	0.45	0.46			0.33	
Incremental Delay, d2					2.7	0.3	0.1	0.8			0.7	
Delay (s)					46.7	43.0	0.9	1.7			2.6	
Level of Service					D	D	A	A			A	
Approach Delay (s)		0.0			46.1			1.6			2.6	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	47.0%	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												
Volume (vph)	52	45	29	0	0	26	0	367	2	0	245	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99			0.98			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.94			0.86			1.00			1.00	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1706	1675			1279			1010			1343	
Flt Permitted	0.74	1.00			1.00			1.00			1.00	
Satd. Flow (perm)	1326	1675			1279			1010			1343	
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.91	0.92	0.91	0.91	0.93	0.91	0.91
Adj. Flow (vph)	57	49	32	0	0	29	0	403	2	0	269	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	57	81	0	0	29	0	0	405	0	0	269	0
Confl. Peds. (#/hr)	1		3			1			3			3
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	2%	2%	19%	2%	12%	0%	14%	14%	0%
Parking (#/hr)								50			4	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	21.0	21.0			21.0			71.0			71.0	
Effective Green, g (s)	21.0	21.0			21.0			71.0			71.0	
Actuated g/C Ratio	0.21	0.21			0.21			0.71			0.71	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	278	351			268			717			953	
v/s Ratio Prot		c0.05			0.02			c0.40			0.20	
v/s Ratio Perm	0.04											
v/c Ratio	0.21	0.23			0.11			0.56			0.28	
Uniform Delay, d1	32.6	32.8			31.9			7.0			5.3	
Progression Factor	1.00	1.00			1.00			0.44			0.42	
Incremental Delay, d2	1.7	1.5			0.8			2.7			0.7	
Delay (s)	34.3	34.3			32.7			5.8			2.9	
Level of Service	C	C			C			A			A	
Approach Delay (s)		34.3			32.7			5.8			2.9	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

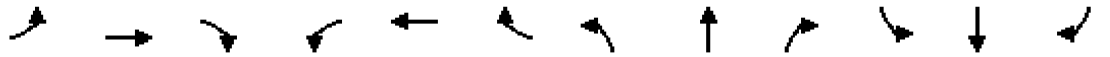
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	267	78	37	145	91	0	419	24	0	241	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97		1.00	0.95		1.00	0.95
Flpb, ped/bikes	0.99	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	0.99	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1588	1514	1216	1588	1370	1108		1139	991		1099	1007
Flt Permitted	0.59	1.00	1.00	0.42	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	989	1514	1216	707	1370	1108		1139	991		1099	1007
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	62	293	86	41	159	100	0	460	26	0	265	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	62	293	86	41	169	90	0	460	26	0	265	7
Confl. Peds. (#/hr)	3		4	4		3			8			10
Confl. Bikes (#/hr)						1			2			3
Heavy Vehicles (%)	0%	11%	14%	0%	15%	19%	14%	13%	4%	17%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								32	32		36	36
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0	31.0		60.0	60.0		60.0	60.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0	31.0		60.0	60.0		60.0	60.0
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31		0.60	0.60		0.60	0.60
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	306	469	376	219	424	343		683	594		659	604
v/s Ratio Prot		c0.19			0.12			c0.40			0.24	
v/s Ratio Perm	0.06		0.07	0.06		0.08			0.03			0.01
v/c Ratio	0.20	0.62	0.23	0.19	0.40	0.26		0.67	0.04		0.40	0.01
Uniform Delay, d1	25.4	29.5	25.6	25.3	27.2	25.9		13.4	8.2		10.5	8.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.54	0.67		0.71	0.71
Incremental Delay, d2	1.5	6.2	1.4	1.9	2.8	1.9		4.4	0.1		1.8	0.0
Delay (s)	26.9	35.7	27.0	27.2	29.9	27.8		11.7	5.6		9.3	5.7
Level of Service	C	D	C	C	C	C		B	A		A	A
Approach Delay (s)		32.8			28.9			11.3			9.2	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.6%	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												
Volume (vph)	34	34	34	10	21	21	0	553	14	0	426	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
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			0.95			1.00			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1550			1290			1419			1407	
Flt Permitted		0.88			0.95			1.00			1.00	
Satd. Flow (perm)		1395			1236			1419			1407	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	37	37	37	11	23	23	0	608	15	0	468	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	57	0	0	623	0	0	486	0
Confl. Peds. (#/hr)	10		2	2		10			2			7
Heavy Vehicles (%)	0%	21%	0%	20%	0%	59%	5%	10%	7%	19%	11%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		14.3			14.3			76.7			76.7	
Effective Green, g (s)		14.3			14.3			76.7			76.7	
Actuated g/C Ratio		0.14			0.14			0.77			0.77	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		199			176			1088			1079	
v/s Ratio Prot								c0.44			0.35	
v/s Ratio Perm		c0.08			0.05							
v/c Ratio		0.56			0.32			0.57			0.45	
Uniform Delay, d1		39.9			38.5			4.8			4.1	
Progression Factor		1.00			1.00			0.98			0.53	
Incremental Delay, d2		5.7			2.2			1.9			1.3	
Delay (s)		45.6			40.7			6.6			3.5	
Level of Service		D			D			A			A	
Approach Delay (s)		45.6			40.7			6.6			3.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	49.5%	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												
Volume (vph)	28	331	111	108	369	164	0	482	67	0	366	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98		1.00	1.00		1.00	0.98
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1450	2926	1345	1333	2875	992		1294	1134		1253	1106
Flt Permitted	0.51	1.00	1.00	0.37	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	784	2926	1345	524	2875	992		1294	1134		1253	1106
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	31	364	122	119	405	180	0	530	74	0	402	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	31	364	122	119	405	180	0	530	74	0	402	20
Confl. Peds. (#/hr)												2
Confl. Bikes (#/hr)						1						3
Heavy Vehicles (%)	14%	13%	10%	24%	15%	46%	1%	21%	16%	16%	25%	17%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	29.8	26.2	26.2	39.2	32.6	32.6		54.8	54.8		54.8	54.8
Effective Green, g (s)	29.8	26.2	26.2	39.2	32.6	32.6		54.8	54.8		54.8	54.8
Actuated g/C Ratio	0.30	0.26	0.26	0.39	0.33	0.33		0.55	0.55		0.55	0.55
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	257	766	352	286	937	323		709	621		686	606
v/s Ratio Prot	0.00	0.12		c0.04	0.14			c0.41			0.32	
v/s Ratio Perm	0.03		0.09	0.12		c0.18			0.07			0.02
v/c Ratio	0.12	0.48	0.35	0.42	0.43	0.56		0.75	0.12		0.59	0.03
Uniform Delay, d1	25.2	31.1	30.0	20.8	26.4	27.8		17.3	10.9		15.0	10.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.72	0.67		0.91	0.97
Incremental Delay, d2	0.2	2.1	2.7	1.0	1.5	6.8		6.5	0.4		1.2	0.0
Delay (s)	25.4	33.2	32.6	21.7	27.9	34.5		19.0	7.6		14.9	10.1
Level of Service	C	C	C	C	C	C		B	A		B	B
Approach Delay (s)		32.6			28.6			17.6			14.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	85	33	0	520	286	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	11	11	11	11
Total Lost time (s)	5.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.99			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.96			1.00	0.98	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1532			1198	1555	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1532			1198	1555	
Peak-hour factor, PHF	0.91	0.91	0.96	0.91	0.91	0.91
Adj. Flow (vph)	93	36	0	571	314	65
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	129	0	0	571	379	0
Confl. Peds. (#/hr)	2	1				4
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	2%	12%	0%	6%	7%	17%
Parking (#/hr)				34		
Turn Type	NA			NA	NA	
Protected Phases	4			2 9	6	
Permitted Phases						
Actuated Green, G (s)	16.0			74.0	67.0	
Effective Green, g (s)	16.0			74.0	67.0	
Actuated g/C Ratio	0.16			0.74	0.67	
Clearance Time (s)	5.0				3.0	
Vehicle Extension (s)	8.0				3.0	
Lane Grp Cap (vph)	245			886	1041	
v/s Ratio Prot	c0.08			c0.48	0.24	
v/s Ratio Perm						
v/c Ratio	0.53			0.64	0.36	
Uniform Delay, d1	38.5			6.5	7.2	
Progression Factor	1.00			0.10	0.94	
Incremental Delay, d2	7.4			1.2	0.9	
Delay (s)	45.9			1.9	7.7	
Level of Service	D			A	A	
Approach Delay (s)	45.9			1.9	7.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.5%	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												
Volume (vph)	0	0	5	2	0	2	0	589	0	0	500	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	8	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.86			0.93			1.00			1.00	
Flt Protected		1.00			0.98			1.00			1.00	
Satd. Flow (prot)		1557			1310			1477			1408	
Flt Permitted		1.00			0.93			1.00			1.00	
Satd. Flow (perm)		1557			1247			1477			1408	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.92	0.91	0.92	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	0	0	5	2	0	2	0	647	0	0	549	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	5	0	0	4	0	0	647	0	0	551	0
Confl. Peds. (#/hr)									5			13
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	0%	0%	2%	50%	2%	6%	0%	67%	11%	50%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6 13	
Permitted Phases	4			8								
Actuated Green, G (s)		16.0			16.0			67.0			74.0	
Effective Green, g (s)		16.0			16.0			67.0			74.0	
Actuated g/C Ratio		0.16			0.16			0.67			0.74	
Clearance Time (s)		5.0			5.0			3.0				
Vehicle Extension (s)		8.0			8.0			3.0				
Lane Grp Cap (vph)		249			199			989			1041	
v/s Ratio Prot		c0.00						c0.44			c0.39	
v/s Ratio Perm					0.00							
v/c Ratio		0.02			0.02			0.65			0.53	
Uniform Delay, d1		35.4			35.4			9.7			5.6	
Progression Factor		1.00			1.00			0.75			0.66	
Incremental Delay, d2		0.1			0.2			2.8			0.5	
Delay (s)		35.5			35.6			10.1			4.1	
Level of Service		D			D			B			A	
Approach Delay (s)		35.5			35.6			10.1			4.1	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.6%	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												
Volume (vph)	108	248	56	24	118	66	0	459	39	0	278	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98		1.00	0.98		1.00	0.96
Flpb, ped/bikes	1.00	1.00		0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1503	1403		1457	1527	1247		1272	986		1165	886
Flt Permitted	0.67	1.00		0.40	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	1064	1403		616	1527	1247		1272	986		1165	886
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	119	273	62	26	130	73	0	504	43	0	305	78
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	119	335	0	26	130	73	0	504	43	0	305	78
Confl. Peds. (#/hr)	1		14	14		1			1			8
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	6%	18%	4%	8%	10%	12%	3%	4%	10%	22%	9%	15%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								28	28		34	34
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	35.0	35.0		35.0	35.0	35.0		56.0	56.0		56.0	56.0
Effective Green, g (s)	35.0	35.0		35.0	35.0	35.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio	0.35	0.35		0.35	0.35	0.35		0.56	0.56		0.56	0.56
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	372	491		215	534	436		712	552		652	496
v/s Ratio Prot		c0.24			0.09			c0.40			0.26	
v/s Ratio Perm	0.11			0.04		0.06			0.04			0.09
v/c Ratio	0.32	0.68		0.12	0.24	0.17		0.71	0.08		0.47	0.16
Uniform Delay, d1	23.8	27.8		22.1	23.1	22.4		16.0	10.1		13.1	10.6
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.70	0.92		0.47	0.54
Incremental Delay, d2	2.3	7.5		1.1	1.1	0.8		4.7	0.2		2.1	0.6
Delay (s)	26.0	35.2		23.2	24.2	23.3		15.9	9.6		8.2	6.3
Level of Service	C	D		C	C	C		B	A		A	A
Approach Delay (s)		32.8			23.8			15.4			7.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	19.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.3%	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												
Volume (vph)	32	38	15	20	13	9	0	581	44	0	400	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			1.00	
Flpb, ped/bikes		0.97			1.00			1.00			1.00	
Frt		0.98			0.97			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1616			1457			1346			1066	
Flt Permitted		0.87			0.82			1.00			1.00	
Satd. Flow (perm)		1437			1221			1346			1066	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	35	42	16	22	14	10	0	638	48	0	440	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	93	0	0	46	0	0	686	0	0	488	0
Confl. Peds. (#/hr)	16		2	2		16			2			9
Heavy Vehicles (%)	0%	5%	7%	10%	0%	44%	14%	5%	2%	10%	10%	16%
Parking (#/hr)								16			42	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		10.6			10.6			80.4			80.4	
Effective Green, g (s)		10.6			10.6			80.4			80.4	
Actuated g/C Ratio		0.11			0.11			0.80			0.80	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		152			129			1082			857	
v/s Ratio Prot								c0.51			0.46	
v/s Ratio Perm		c0.06			0.04							
v/c Ratio		0.61			0.36			0.63			0.57	
Uniform Delay, d1		42.7			41.5			3.9			3.5	
Progression Factor		1.00			1.00			0.23			0.56	
Incremental Delay, d2		10.1			3.5			2.3			2.6	
Delay (s)		52.8			45.0			3.2			4.6	
Level of Service		D			D			A			A	
Approach Delay (s)		52.8			45.0			3.2			4.6	
Approach LOS		D			D			A			A	

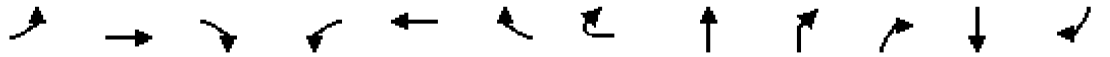
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	20	15	16	10	22	0	489	23	0	275	43
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.98			1.00			0.99	
Flpb, ped/bikes		0.98			0.99			1.00			1.00	
Frt		0.97			0.94			0.99			0.98	
Flt Protected		0.97			0.98			1.00			1.00	
Satd. Flow (prot)		1642			1548			1141			1085	
Flt Permitted		0.85			0.91			1.00			1.00	
Satd. Flow (perm)		1423			1429			1141			1085	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	40	22	16	18	11	24	0	537	25	0	302	47
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	78	0	0	53	0	0	562	0	0	349	0
Confl. Peds. (#/hr)	15		10	10		15			7			9
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	0%	0%	7%	12%	0%	0%	10%	6%	4%	0%	11%	0%
Parking (#/hr)								40			40	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			68.0			68.0	
Effective Green, g (s)		23.0			23.0			68.0			68.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		327			328			775			737	
v/s Ratio Prot								c0.49			0.32	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.24			0.16			0.73			0.47	
Uniform Delay, d1		31.4			30.8			10.1			7.6	
Progression Factor		1.00			1.00			0.55			0.87	
Incremental Delay, d2		1.7			1.1			4.7			1.9	
Delay (s)		33.1			31.8			10.2			8.4	
Level of Service		C			C			B			A	
Approach Delay (s)		33.1			31.8			10.2			8.4	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	12.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.3%	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												
Volume (vph)	32	52	10	4	14	38	0	473	27	0	251	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.96			0.99			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.99			0.91			0.99			0.98	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1703			1516			1152			995	
Flt Permitted		0.89			0.99			1.00			1.00	
Satd. Flow (perm)		1549			1501			1152			995	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	35	57	11	4	15	42	0	520	30	0	276	45
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	103	0	0	61	0	0	550	0	0	321	0
Confl. Peds. (#/hr)	13		5	5		13			18			11
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	0%	0%	10%	0%	0%	5%	0%	6%	4%	2%	13%	7%
Parking (#/hr)								38			48	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			72.0			72.0	
Effective Green, g (s)		20.0			20.0			72.0			72.0	
Actuated g/C Ratio		0.20			0.20			0.72			0.72	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		309			300			829			716	
v/s Ratio Prot								c0.48			0.32	
v/s Ratio Perm		c0.07			0.04							
v/c Ratio		0.33			0.20			0.66			0.45	
Uniform Delay, d1		34.3			33.4			7.5			5.8	
Progression Factor		1.00			1.00			0.52			0.90	
Incremental Delay, d2		2.9			1.5			3.4			1.8	
Delay (s)		37.2			34.9			7.3			7.1	
Level of Service		D			C			A			A	
Approach Delay (s)		37.2			34.9			7.3			7.1	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

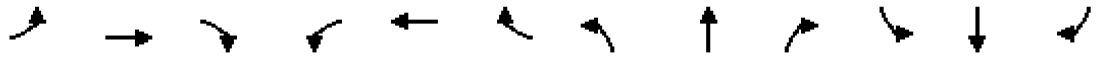


Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations												
Volume (vph)	100	293	40	60	256	48	7	361	16	56	192	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	10	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.98			1.00	0.89		1.00	0.92
Flpb, ped/bikes	1.00	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.97			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1425	2701		1527	2712			1071	1267		1398	1126
Flt Permitted	0.45	1.00		0.51	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	670	2701		812	2712			1071	1267		1398	1126
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)	110	322	44	66	281	53	8	397	18	62	211	65
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	110	366	0	66	342	0	0	397	80	0	211	65
Confl. Peds. (#/hr)			27	27		51			33			44
Heavy Vehicles (%)	12%	16%	8%	3%	12%	15%	0%	4%	0%	5%	12%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								52			0	0
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	35.7	28.8		31.5	26.7			54.4	54.4		54.4	54.4
Effective Green, g (s)	35.7	28.8		31.5	26.7			54.4	54.4		54.4	54.4
Actuated g/C Ratio	0.36	0.29		0.32	0.27			0.54	0.54		0.54	0.54
Clearance Time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	291	777		290	724			582	689		760	612
v/s Ratio Prot	c0.03	c0.14		0.01	0.13			c0.37			0.15	
v/s Ratio Perm	0.11			0.06					0.06			0.06
v/c Ratio	0.38	0.47		0.23	0.47			0.68	0.12		0.28	0.11
Uniform Delay, d1	22.6	29.3		24.5	30.7			16.5	11.1		12.2	11.0
Progression Factor	1.00	1.00		1.00	1.00			0.40	0.35		0.73	0.75
Incremental Delay, d2	0.8	2.0		0.4	2.2			4.0	0.2		0.8	0.3
Delay (s)	23.4	31.4		24.9	32.9			10.5	4.1		9.8	8.6
Level of Service	C	C		C	C			B	A		A	A
Approach Delay (s)		29.5			31.7			9.5			9.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	20.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SWR2
Lane Configurations	
Volume (vph)	3
Ideal Flow (vphpl)	1800
Lane Width	12
Total Lost time (s)	5.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1557
Flt Permitted	1.00
Satd. Flow (perm)	1557
Peak-hour factor, PHF	0.91
Adj. Flow (vph)	3
RTOR Reduction (vph)	0
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	26.7
Effective Green, g (s)	26.7
Actuated g/C Ratio	0.27
Clearance Time (s)	5.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	415
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	26.9
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	26.9
Level of Service	C
Approach Delay (s)	
Approach LOS	
Intersection Summary	

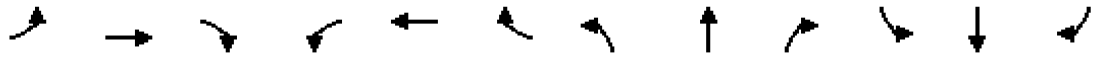


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	16	55	16	0	582	0	0	250	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.98	
Flpb, ped/bikes					0.98			1.00			1.00	
Frt					0.97			1.00			0.98	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1594			1205			1014	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1594			1205			1014	
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)	0	0	0	18	60	18	0	640	0	0	275	57
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	96	0	0	640	0	0	332	0
Confl. Peds. (#/hr)			56	56		33			2			19
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	0%	4%	12%	9%	4%	0%	0%	7%	8%
Parking (#/hr)								36			50	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			68.0			68.0	
Effective Green, g (s)					23.0			68.0			68.0	
Actuated g/C Ratio					0.23			0.68			0.68	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					366			819			689	
v/s Ratio Prot								c0.53			0.33	
v/s Ratio Perm					0.06							
v/c Ratio					0.26			0.78			0.48	
Uniform Delay, d1					31.5			10.9			7.6	
Progression Factor					1.00			0.48			1.09	
Incremental Delay, d2					1.7			6.5			2.3	
Delay (s)					33.3			11.7			10.6	
Level of Service					C			B			B	
Approach Delay (s)		0.0			33.3			11.7			10.6	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	59.0%	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												
Volume (vph)	48	40	30	16	19	10	0	410	37	0	197	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.99			0.99			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.97			0.97			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1697			1634			1112			1029	
Flt Permitted		0.86			0.89			1.00			1.00	
Satd. Flow (perm)		1496			1481			1112			1029	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	53	44	33	18	21	11	0	451	41	0	216	23
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	130	0	0	50	0	0	492	0	0	239	0
Confl. Peds. (#/hr)	5					5			14			4
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	12%	0%	0%	0%	5%	0%	0%	9%	0%
Parking (#/hr)								44			50	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			67.0			67.0	
Effective Green, g (s)		24.0			24.0			67.0			67.0	
Actuated g/C Ratio		0.24			0.24			0.67			0.67	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		359			355			745			689	
v/s Ratio Prot								c0.44			0.23	
v/s Ratio Perm		c0.09			0.03							
v/c Ratio		0.36			0.14			0.66			0.35	
Uniform Delay, d1		31.6			29.9			9.8			7.1	
Progression Factor		1.00			1.00			0.57			0.42	
Incremental Delay, d2		2.8			0.8			3.6			1.2	
Delay (s)		34.4			30.7			9.1			4.2	
Level of Service		C			C			A			A	
Approach Delay (s)		34.4			30.7			9.1			4.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.8%	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												
Volume (vph)	26	34	8	16	18	26	0	450	15	0	211	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.97			1.00			0.99	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.98			0.94			1.00			0.98	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1697			1607			1112			1387	
Flt Permitted		0.88			0.93			1.00			1.00	
Satd. Flow (perm)		1529			1507			1112			1387	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	29	37	9	18	20	29	0	495	16	0	232	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	75	0	0	67	0	0	511	0	0	262	0
Confl. Peds. (#/hr)	19		26	26		19			8			8
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	12%	0%
Parking (#/hr)								44			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			68.0			68.0	
Effective Green, g (s)		23.0			23.0			68.0			68.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		351			346			756			943	
v/s Ratio Prot								c0.46			0.19	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.21			0.19			0.68			0.28	
Uniform Delay, d1		31.2			31.0			9.5			6.3	
Progression Factor		1.00			1.00			0.37			1.01	
Incremental Delay, d2		1.4			1.2			4.2			0.7	
Delay (s)		32.6			32.3			7.8			7.1	
Level of Service		C			C			A			A	
Approach Delay (s)		32.6			32.3			7.8			7.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

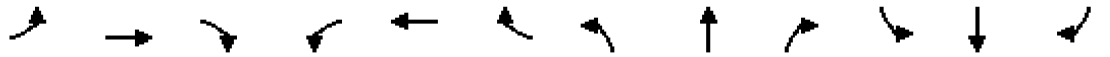
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	318	29	46	196	55	0	349	40	0	168	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.94	1.00	1.00	0.96		1.00	0.94		1.00	0.97
Flpb, ped/bikes	0.99	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1519	1556	1259	1510	1585	1287		1154	926		983	867
Flt Permitted	0.56	1.00	1.00	0.40	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	901	1556	1259	636	1585	1287		1154	926		983	867
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	123	349	32	51	215	60	0	384	44	0	185	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	123	349	32	51	215	60	0	384	44	0	185	38
Confl. Peds. (#/hr)	5		12	12		5			14			4
Heavy Vehicles (%)	4%	8%	7%	4%	6%	7%	3%	4%	2%	8%	15%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								42	42		50	50
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	37.0	37.0	37.0	37.0	37.0	37.0		54.0	54.0		54.0	54.0
Effective Green, g (s)	37.0	37.0	37.0	37.0	37.0	37.0		54.0	54.0		54.0	54.0
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37		0.54	0.54		0.54	0.54
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	333	575	465	235	586	476		623	500		530	468
v/s Ratio Prot		c0.22			0.14			c0.33			0.19	
v/s Ratio Perm	0.14		0.03	0.08		0.05			0.05			0.04
v/c Ratio	0.37	0.61	0.07	0.22	0.37	0.13		0.62	0.09		0.35	0.08
Uniform Delay, d1	23.0	25.6	20.4	21.6	23.0	20.8		15.9	11.1		13.0	11.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.30	0.48		0.58	0.58
Incremental Delay, d2	3.1	4.7	0.3	2.1	1.8	0.5		3.7	0.3		1.8	0.3
Delay (s)	26.1	30.3	20.6	23.7	24.7	21.4		8.4	5.6		9.3	6.8
Level of Service	C	C	C	C	C	C		A	A		A	A
Approach Delay (s)		28.7			23.9			8.1			8.9	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.1%	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												
Volume (vph)	0	0	0	8	9	13	0	451	0	0	196	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			1.00	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1590			1205			1021	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1590			1205			1021	
Peak-hour factor, PHF	0.92	0.92	0.91	0.91	0.91	0.91	0.92	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	0	0	0	9	10	14	0	496	0	0	215	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	33	0	0	496	0	0	233	0
Confl. Peds. (#/hr)			13	13		2			13			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	8%	0%	4%	0%	20%	11%	12%
Parking (#/hr)								36			48	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			68.0			68.0	
Effective Green, g (s)					23.0			68.0			68.0	
Actuated g/C Ratio					0.23			0.68			0.68	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					365			819			694	
v/s Ratio Prot								c0.41			0.23	
v/s Ratio Perm					0.02							
v/c Ratio					0.09			0.61			0.34	
Uniform Delay, d1					30.3			8.7			6.6	
Progression Factor					1.00			0.22			0.50	
Incremental Delay, d2					0.5			2.7			1.3	
Delay (s)					30.8			4.7			4.6	
Level of Service					C			A			A	
Approach Delay (s)		0.0			30.8			4.7			4.6	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

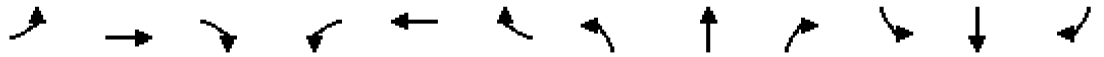
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	138	738	29	0	427	0	0	152	70
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	9	10	10	11	11	11	11	11	11
Total Lost time (s)				5.0	5.0	5.0		3.0			3.0	3.0
Lane Util. Factor				1.00	0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes				1.00	1.00	0.89		1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00	1.00		1.00			1.00	1.00
Frt				1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				1524	3069	1266		1477			1084	970
Flt Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				1524	3069	1266		1477			1084	970
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)	0	0	0	152	811	32	0	469	0	0	167	77
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	152	811	32	0	469	0	0	167	77
Confl. Peds. (#/hr)						57			12			14
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	1%	4%	0%	4%	6%	0%	0%	14%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								0			38	38
Turn Type				Perm	NA	Perm		NA			NA	Perm
Protected Phases					8			2 5			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				40.0	40.0	40.0		46.0			43.0	43.0
Effective Green, g (s)				40.0	40.0	40.0		46.0			43.0	43.0
Actuated g/C Ratio				0.40	0.40	0.40		0.46			0.43	0.43
Clearance Time (s)				5.0	5.0	5.0					3.0	3.0
Lane Grp Cap (vph)				609	1227	506		679			466	417
v/s Ratio Prot					c0.26			c0.32			0.15	
v/s Ratio Perm				0.10		0.03						0.08
v/c Ratio				0.25	0.66	0.06		0.69			0.36	0.18
Uniform Delay, d1				20.0	24.5	18.5		21.4			19.2	17.6
Progression Factor				1.00	1.00	1.00		0.38			1.07	1.08
Incremental Delay, d2				1.0	2.8	0.2		4.2			2.1	1.0
Delay (s)				21.0	27.3	18.7		12.3			22.6	20.0
Level of Service				C	C	B		B			C	B
Approach Delay (s)		0.0			26.0			12.3			21.8	
Approach LOS		A			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	107.1%	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												
Volume (vph)	76	936	63	0	0	0	0	376	164	0	254	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					3.0	3.0		5.0	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00	0.90					1.00	0.98		1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00		1.00	
Frt	1.00	1.00	0.85					1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1477	3011	1191					1248	1077		1437	
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1477	3011	1191					1248	1077		1437	
Peak-hour factor, PHF	0.91	0.91	0.91	0.94	0.94	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	84	1029	69	0	0	0	0	413	180	0	279	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	1029	69	0	0	0	0	413	180	0	279	0
Confl. Peds. (#/hr)	1		48			1			10			6
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	4%	6%	8%	0%	0%	0%	0%	6%	2%	4%	9%	0%
Parking (#/hr)								28	28		0	
Turn Type	Perm	NA	Perm					NA	Perm		NA	
Protected Phases		4						2			1 6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	40.0	40.0	40.0					42.0	42.0		48.0	
Effective Green, g (s)	40.0	40.0	40.0					42.0	42.0		48.0	
Actuated g/C Ratio	0.40	0.40	0.40					0.42	0.42		0.48	
Clearance Time (s)	5.0	5.0	5.0					3.0	3.0			
Lane Grp Cap (vph)	590	1204	476					524	452		689	
v/s Ratio Prot		c0.34						c0.33			c0.19	
v/s Ratio Perm	0.06		0.06						0.17			
v/c Ratio	0.14	0.85	0.14					0.79	0.40		0.40	
Uniform Delay, d1	19.1	27.3	19.1					25.1	20.2		16.8	
Progression Factor	1.00	1.00	1.00					0.94	1.02		1.21	
Incremental Delay, d2	0.5	7.8	0.6					7.5	1.7		1.7	
Delay (s)	19.6	35.2	19.7					31.2	22.3		22.0	
Level of Service	B	D	B					C	C		C	
Approach Delay (s)		33.2			0.0			28.5			22.0	
Approach LOS		C			A			C			C	

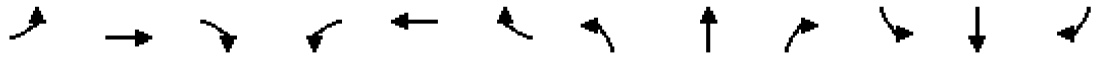
Intersection Summary			
HCM 2000 Control Delay	30.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	107.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	10	34	0	0	0	0	592	8	0	261	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.97						1.00			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.93						1.00			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1544						1167			1063	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1544						1167			1063	
Peak-hour factor, PHF	0.91	0.91	0.91	0.95	0.95	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	24	11	37	0	0	0	0	651	9	0	287	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	72	0	0	0	0	0	660	0	0	287	0
Confl. Peds. (#/hr)	7		17			7			10			23
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	6%	0%	0%	0%	0%	4%	12%	0%	8%	0%
Parking (#/hr)								40			48	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						68.0			68.0	
Effective Green, g (s)		23.0						68.0			68.0	
Actuated g/C Ratio		0.23						0.68			0.68	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		355						793			722	
v/s Ratio Prot								c0.57			0.27	
v/s Ratio Perm		0.05										
v/c Ratio		0.20						0.83			0.40	
Uniform Delay, d1		31.1						11.8			7.0	
Progression Factor		1.00						0.37			0.73	
Incremental Delay, d2		1.3						7.4			1.5	
Delay (s)		32.4						11.8			6.6	
Level of Service		C						B			A	
Approach Delay (s)		32.4			0.0			11.8			6.6	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.1%	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												
Volume (vph)	76	302	39	51	273	37	0	505	33	0	245	33
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.79	1.00	1.00	0.96		1.00	0.98		1.00	0.90
Flpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1432	1527	1070	1493	1615	1266		1288	1099		1437	1089
Flt Permitted	0.41	1.00	1.00	0.36	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	617	1527	1070	573	1615	1266		1288	1099		1437	1089
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	84	332	43	56	300	41	0	555	36	0	269	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	332	43	56	300	41	0	555	36	0	269	36
Confl. Peds. (#/hr)	7		63	63		7			1			25
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	11%	10%	5%	4%	4%	8%	2%	4%	0%	7%	9%	9%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.6	30.6	30.6	34.6	30.6	30.6		53.4	53.4		53.4	53.4
Effective Green, g (s)	34.6	30.6	30.6	34.6	30.6	30.6		53.4	53.4		53.4	53.4
Actuated g/C Ratio	0.35	0.31	0.31	0.35	0.31	0.31		0.53	0.53		0.53	0.53
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	246	467	327	235	494	387		687	586		767	581
v/s Ratio Prot	c0.01	c0.22		0.01	0.19			c0.43			0.19	
v/s Ratio Perm	0.10		0.04	0.07		0.03			0.03			0.03
v/c Ratio	0.34	0.71	0.13	0.24	0.61	0.11		0.81	0.06		0.35	0.06
Uniform Delay, d1	23.3	30.8	25.1	22.8	29.6	24.9		19.1	11.2		13.4	11.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.65	0.92		0.61	0.63
Incremental Delay, d2	0.8	8.9	0.8	0.5	5.5	0.6		6.1	0.1		1.2	0.2
Delay (s)	24.1	39.7	25.9	23.4	35.0	25.4		18.4	10.4		9.4	7.3
Level of Service	C	D	C	C	D	C		B	B		A	A
Approach Delay (s)		35.5			32.4			18.0			9.1	
Approach LOS		D			C			B			A	

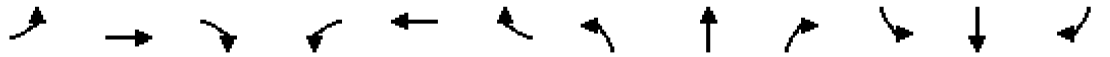
Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	32	85	0	0	0	0	572	45	0	309	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.92						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1749						1232			1015	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1749						1232			1015	
Peak-hour factor, PHF	0.91	0.91	0.91	0.99	0.99	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	35	35	93	0	0	0	0	629	49	0	340	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	163	0	0	0	0	0	678	0	0	340	0
Confl. Peds. (#/hr)	6		7			6			16			24
Heavy Vehicles (%)	19%	0%	0%	0%	0%	0%	0%	3%	2%	14%	8%	0%
Parking (#/hr)								32			54	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						68.0			68.0	
Effective Green, g (s)		23.0						68.0			68.0	
Actuated g/C Ratio		0.23						0.68			0.68	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		402						837			690	
v/s Ratio Prot								c0.55			0.33	
v/s Ratio Perm		0.09										
v/c Ratio		0.41						0.81			0.49	
Uniform Delay, d1		32.7						11.4			7.7	
Progression Factor		1.00						1.00			0.93	
Incremental Delay, d2		3.0						8.4			2.4	
Delay (s)		35.7						19.8			9.6	
Level of Service		D						B			A	
Approach Delay (s)		35.7			0.0			19.8			9.6	
Approach LOS		D			A			B			A	

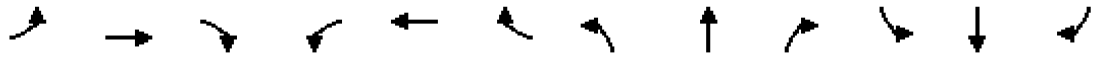
Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	493	83	71	462	44	0	475	60	0	311	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	10	10	10	10	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
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	0.90	1.00	1.00			1.00	0.90		1.00	0.91
Flpb, ped/bikes	0.99	1.00	1.00	0.97	1.00			1.00	1.00		1.00	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			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1488	1527	1178	1457	1580			1673	1145		1626	1208
Flt Permitted	0.31	1.00	1.00	0.32	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	479	1527	1178	488	1580			1673	1145		1626	1208
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.92	0.91	0.91
Adj. Flow (vph)	65	542	91	78	508	48	0	522	66	0	342	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	65	542	91	78	556	0	0	522	66	0	342	49
Confl. Peds. (#/hr)	19		76	76		19			42			37
Heavy Vehicles (%)	14%	10%	9%	6%	5%	0%	5%	4%	3%	2%	7%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0			
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0			27.0	27.0		27.0	27.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0			27.0	27.0		27.0	27.0
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48			0.42	0.42		0.42	0.42
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	228	728	561	232	753			694	475		675	501
v/s Ratio Prot		c0.35			0.35			c0.31			0.21	
v/s Ratio Perm	0.14		0.08	0.16					0.06			0.04
v/c Ratio	0.29	0.74	0.16	0.34	0.74			0.75	0.14		0.51	0.10
Uniform Delay, d1	10.3	13.8	9.6	10.6	13.7			16.2	11.8		14.1	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.78	0.69		1.00	1.00
Incremental Delay, d2	3.1	6.8	0.6	3.9	6.4			6.1	0.5		2.7	0.4
Delay (s)	13.4	20.6	10.3	14.5	20.1			18.8	8.6		16.8	12.0
Level of Service	B	C	B	B	C			B	A		B	B
Approach Delay (s)		18.6			19.4			17.7			16.2	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	70.1%	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												
Volume (vph)	0	0	0	36	14	56	0	612	0	0	246	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.93			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1710			1422			1141	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1710			1422			1141	
Peak-hour factor, PHF	0.95	0.95	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	0	0	0	40	15	62	0	673	0	0	270	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	117	0	0	673	0	0	297	0
Confl. Peds. (#/hr)			22	22		6			27			26
Heavy Vehicles (%)	0%	0%	0%	6%	0%	2%	0%	4%	0%	0%	8%	4%
Parking (#/hr)								10			36	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					8.0			48.0			48.0	
Effective Green, g (s)					8.0			48.0			48.0	
Actuated g/C Ratio					0.12			0.74			0.74	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					5.0			3.0			3.0	
Lane Grp Cap (vph)					210			1050			842	
v/s Ratio Prot								c0.47			0.26	
v/s Ratio Perm					0.07							
v/c Ratio					0.56			0.64			0.35	
Uniform Delay, d1					26.8			4.2			3.0	
Progression Factor					1.00			1.00			0.27	
Incremental Delay, d2					5.4			3.0			1.1	
Delay (s)					32.2			7.2			1.9	
Level of Service					C			A			A	
Approach Delay (s)		0.0			32.2			7.2			1.9	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	48.3%	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												
Volume (vph)	94	360	40	66	260	63	0	479	25	0	247	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	9	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	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	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.96		1.00			0.99	
Flpb, ped/bikes	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	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1532	1663	1373	1490	1631	1349		1223			1082	
Flt Permitted	0.47	1.00	1.00	0.33	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	751	1663	1373	511	1631	1349		1223			1082	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.98	0.91	0.91	0.98	0.91	0.91
Adj. Flow (vph)	103	396	44	73	286	69	0	526	27	0	271	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	103	396	44	73	286	69	0	553	0	0	298	0
Confl. Peds. (#/hr)	11		12	12		11			20			18
Heavy Vehicles (%)	0%	1%	0%	3%	3%	2%	0%	0%	0%	10%	7%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		44	44
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	34.6	30.6	30.6	34.6	30.6	30.6		42.4			42.4	
Effective Green, g (s)	34.6	30.6	30.6	34.6	30.6	30.6		42.4			42.4	
Actuated g/C Ratio	0.38	0.34	0.34	0.38	0.34	0.34		0.47			0.47	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	323	565	466	239	554	458		576			509	
v/s Ratio Prot	c0.01	c0.24		0.01	0.18			c0.45			0.28	
v/s Ratio Perm	0.11		0.03	0.10		0.05						
v/c Ratio	0.32	0.70	0.09	0.31	0.52	0.15		0.96			0.59	
Uniform Delay, d1	18.5	25.7	20.3	18.8	23.8	20.7		23.0			17.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.75			1.00	
Incremental Delay, d2	0.6	7.1	0.4	0.7	3.4	0.7		23.4			4.9	
Delay (s)	19.1	32.8	20.7	19.5	27.2	21.4		40.8			22.2	
Level of Service	B	C	C	B	C	C		D			C	
Approach Delay (s)		29.2			24.9			40.8			22.2	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	30.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	69.6%	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												
Volume (vph)	76	357	49	44	197	30	0	439	41	0	275	51
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			1.00	0.89		1.00	0.91		1.00	0.90
Flpb, ped/bikes		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Frt		0.98			1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3032			1595	1283		1138	1324		1018	1252
Flt Permitted		0.78			0.82	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		2374			1312	1283		1138	1324		1018	1252
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	84	392	54	48	216	33	0	482	45	0	302	56
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	530	0	0	264	33	0	482	45	0	302	56
Confl. Peds. (#/hr)	47		48	48		47			48			32
Heavy Vehicles (%)	0%	6%	0%	0%	9%	3%	6%	4%	2%	4%	6%	6%
Parking (#/hr)								44			56	
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		28.0			28.0	28.0		53.0	53.0		53.0	53.0
Effective Green, g (s)		28.0			28.0	28.0		53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.31			0.31	0.31		0.59	0.59		0.59	0.59
Clearance Time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		738			408	399		670	779		599	737
v/s Ratio Prot								c0.42			0.30	
v/s Ratio Perm		c0.22			0.20	0.03			0.03			0.04
v/c Ratio		0.72			0.65	0.08		0.72	0.06		0.50	0.08
Uniform Delay, d1		27.5			26.7	21.9		13.2	7.9		10.8	8.0
Progression Factor		1.00			1.00	1.00		0.66	0.96		0.62	0.43
Incremental Delay, d2		5.9			7.7	0.4		4.8	0.1		2.8	0.2
Delay (s)		33.4			34.5	22.3		13.5	7.6		9.5	3.6
Level of Service		C			C	C		B	A		A	A
Approach Delay (s)		33.4			33.1			13.0			8.6	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	21.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.1%	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												
Volume (vph)	73	326	32	40	322	65	0	526	13	0	263	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.94		1.00			1.00	
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1586	1647	1316	1512	1615	1315		1413			1468	
Flt Permitted	0.34	1.00	1.00	0.37	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	568	1647	1316	590	1615	1315		1413			1468	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	80	358	35	44	354	71	0	578	14	0	289	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	80	358	35	44	354	71	0	592	0	0	319	0
Confl. Peds. (#/hr)	24		18	18		24			7			8
Heavy Vehicles (%)	0%	2%	3%	5%	4%	2%	8%	4%	15%	7%	5%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	33.2	29.2	29.2	31.2	28.2	28.2		45.8			45.8	
Effective Green, g (s)	33.2	29.2	29.2	31.2	28.2	28.2		45.8			45.8	
Actuated g/C Ratio	0.37	0.32	0.32	0.35	0.31	0.31		0.51			0.51	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	254	534	426	235	506	412		719			747	
v/s Ratio Prot	c0.01	0.22		0.01	c0.22			c0.42			0.22	
v/s Ratio Perm	0.10		0.03	0.06		0.05						
v/c Ratio	0.31	0.67	0.08	0.19	0.70	0.17		0.82			0.43	
Uniform Delay, d1	19.6	26.2	21.1	20.3	27.2	22.4		18.7			13.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.40			1.29	
Incremental Delay, d2	0.7	6.6	0.4	0.4	7.8	0.9		8.7			1.5	
Delay (s)	20.3	32.8	21.5	20.7	35.0	23.3		16.2			19.4	
Level of Service	C	C	C	C	D	C		B			B	
Approach Delay (s)		29.9			31.9			16.2			19.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

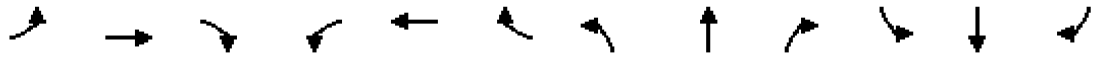
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	204	29	29	136	39	0	492	15	0	319	22
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.92		1.00	0.97		1.00	0.91		1.00	0.92
Flpb, ped/bikes		1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		1575	1122		1577	1233		1506	1252		1477	1254
Flt Permitted		0.90	1.00		0.91	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		1438	1122		1449	1233		1506	1252		1477	1254
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.97	0.91	0.91	0.97	0.91	0.91
Adj. Flow (vph)	56	224	32	32	149	43	0	541	16	0	351	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	280	32	0	181	43	0	541	16	0	351	24
Confl. Peds. (#/hr)	7		33	33		7			27			20
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	22%	6%	17%	0%	6%	12%	9%	4%	7%	5%	6%	9%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		31.0	31.0		31.0	31.0		50.0	50.0		50.0	50.0
Effective Green, g (s)		31.0	31.0		31.0	31.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio		0.34	0.34		0.34	0.34		0.56	0.56		0.56	0.56
Clearance Time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		495	386		499	424		836	695		820	696
v/s Ratio Prot								c0.36			0.24	
v/s Ratio Perm		c0.19	0.03		0.12	0.03			0.01			0.02
v/c Ratio		0.57	0.08		0.36	0.10		0.65	0.02		0.43	0.03
Uniform Delay, d1		24.0	19.9		22.1	20.0		13.9	9.0		11.7	9.1
Progression Factor		1.00	1.00		1.00	1.00		0.83	0.68		0.71	0.62
Incremental Delay, d2		4.6	0.4		2.0	0.5		2.7	0.0		1.6	0.1
Delay (s)		28.6	20.3		24.1	20.5		14.1	6.2		9.9	5.7
Level of Service		C	C		C	C		B	A		A	A
Approach Delay (s)		27.8			23.4			13.9			9.6	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.0%	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												
Volume (vph)	46	309	17	44	208	53	0	518	39	0	206	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.97			0.99			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		3060			3009			1257			1150	
Flt Permitted		0.86			0.83			1.00			1.00	
Satd. Flow (perm)		2647			2526			1257			1150	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	51	340	19	48	229	58	0	569	43	0	226	11
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	410	0	0	335	0	0	612	0	0	237	0
Confl. Peds. (#/hr)	1		9	9		1			5			2
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	3%	6%	0%	2%	4%	0%	4%	5%	7%	7%	0%
Parking (#/hr)								28			38	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			57.0			57.0	
Effective Green, g (s)		24.0			24.0			57.0			57.0	
Actuated g/C Ratio		0.27			0.27			0.63			0.63	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		705			673			796			728	
v/s Ratio Prot								c0.49			0.21	
v/s Ratio Perm		c0.15			0.13							
v/c Ratio		0.58			0.50			0.77			0.33	
Uniform Delay, d1		28.6			27.9			11.8			7.6	
Progression Factor		1.00			1.00			0.61			1.18	
Incremental Delay, d2		3.5			2.6			5.2			1.1	
Delay (s)		32.1			30.5			12.4			10.1	
Level of Service		C			C			B			B	
Approach Delay (s)		32.1			30.5			12.4			10.1	
Approach LOS		C			C			B			B	

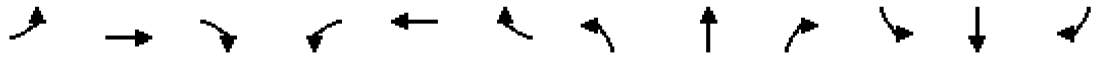
Intersection Summary			
HCM 2000 Control Delay	20.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	496	42	36	454	72	0	412	35	0	233	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	9	9	10	9	11	11	11	11	11	11
Total Lost time (s)	5.0	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	1.00
Frpb, ped/bikes	1.00	1.00	0.90	1.00	1.00	0.92		1.00	0.88		1.00	0.87
Flpb, ped/bikes	0.98	1.00	1.00	0.97	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1489	1541	1178	1413	1527	1159		1165	890		1143	820
Flt Permitted	0.26	1.00	1.00	0.21	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	407	1541	1178	316	1527	1159		1165	890		1143	820
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	122	545	46	40	499	79	0	453	38	0	256	30
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	122	545	46	40	499	79	0	453	38	0	256	30
Confl. Peds. (#/hr)	41		54	54		41			41			47
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	1%	9%	5%	6%	10%	9%	7%	6%	3%	10%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		42	42
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	35.0	35.0	35.0	35.0	35.0	35.0		39.0	39.0		39.0	39.0
Effective Green, g (s)	35.0	35.0	35.0	35.0	35.0	35.0		39.0	39.0		39.0	39.0
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.43	0.43		0.43	0.43
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	158	599	458	122	593	450		504	385		495	355
v/s Ratio Prot		c0.35			0.33			c0.39			0.22	
v/s Ratio Perm	0.30		0.04	0.13		0.07			0.04			0.04
v/c Ratio	0.77	0.91	0.10	0.33	0.84	0.18		0.90	0.10		0.52	0.08
Uniform Delay, d1	24.0	26.0	17.5	19.3	25.0	18.0		23.7	15.1		18.6	15.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.50	0.41		0.67	0.58
Incremental Delay, d2	29.9	20.2	0.4	7.0	13.5	0.8		15.4	0.3		3.7	0.4
Delay (s)	53.9	46.2	17.9	26.3	38.5	18.9		27.3	6.5		16.1	9.1
Level of Service	D	D	B	C	D	B		C	A		B	A
Approach Delay (s)		45.7			35.2			25.7			15.4	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		

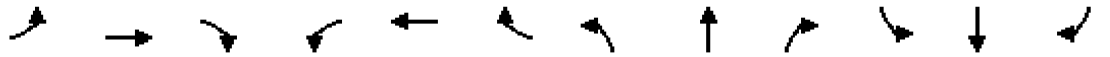
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	26	92	32	0	527	0	0	190	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)					5.0	5.0		4.0			4.0	
Lane Util. Factor					1.00	1.00		1.00			1.00	
Frpb, ped/bikes					1.00	0.96		1.00			0.98	
Flpb, ped/bikes					1.00	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.98	
Flt Protected					0.99	1.00		1.00			1.00	
Satd. Flow (prot)					1625	1314		1149			1005	
Flt Permitted					0.99	1.00		1.00			1.00	
Satd. Flow (perm)					1625	1314		1149			1005	
Peak-hour factor, PHF	0.94	0.94	0.91	0.91	0.91	0.91	0.94	0.91	0.91	0.94	0.91	0.91
Adj. Flow (vph)	0	0	0	29	101	35	0	579	0	0	209	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	130	35	0	579	0	0	242	0
Confl. Peds. (#/hr)			11	11		12			5			41
Heavy Vehicles (%)	0%	0%	0%	8%	0%	4%	3%	3%	0%	0%	5%	3%
Parking (#/hr)								44			54	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					23.0	23.0		58.0			58.0	
Effective Green, g (s)					23.0	23.0		58.0			58.0	
Actuated g/C Ratio					0.26	0.26		0.64			0.64	
Clearance Time (s)					5.0	5.0		4.0			4.0	
Lane Grp Cap (vph)					415	335		740			647	
v/s Ratio Prot								c0.50			0.24	
v/s Ratio Perm					0.08	0.03						
v/c Ratio					0.31	0.10		0.78			0.37	
Uniform Delay, d1					27.1	25.6		11.5			7.5	
Progression Factor					1.00	1.00		0.67			0.95	
Incremental Delay, d2					2.0	0.6		6.3			1.6	
Delay (s)					29.1	26.2		14.0			8.6	
Level of Service					C	C		B			A	
Approach Delay (s)		0.0			28.5			14.0			8.6	
Approach LOS		A			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	15.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	90.0	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



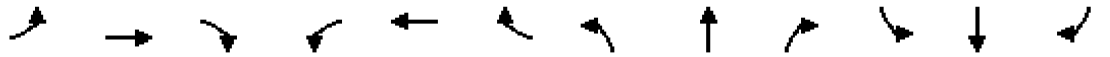
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	287	71	52	250	39	0	506	49	0	225	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00			1.00	0.94		1.00	0.98
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1512	1647	1370	1547	3076			1301	1053		1061	917
Flt Permitted	0.53	1.00	1.00	0.38	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	836	1647	1370	621	3076			1301	1053		1061	917
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.99	0.91	0.91	0.99	0.91	0.91
Adj. Flow (vph)	65	315	78	57	275	43	0	556	54	0	247	15
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	65	315	78	57	318	0	0	556	54	0	247	15
Confl. Peds. (#/hr)	3		12	12		3			18			7
Heavy Vehicles (%)	5%	2%	0%	2%	1%	3%	2%	3%	0%	0%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		52	52
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	26.0	26.0	26.0	26.0	26.0			55.0	55.0		55.0	55.0
Effective Green, g (s)	26.0	26.0	26.0	26.0	26.0			55.0	55.0		55.0	55.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29			0.61	0.61		0.61	0.61
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	241	475	395	179	888			795	643		648	560
v/s Ratio Prot		c0.19			0.10			c0.43			0.23	
v/s Ratio Perm	0.08		0.06	0.09					0.05			0.02
v/c Ratio	0.27	0.66	0.20	0.32	0.36			0.70	0.08		0.38	0.03
Uniform Delay, d1	24.7	28.1	24.1	25.1	25.4			11.9	7.2		8.9	6.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.60	0.67		0.84	1.09
Incremental Delay, d2	2.7	7.1	1.1	4.6	1.1			3.0	0.2		1.6	0.1
Delay (s)	27.4	35.3	25.3	29.7	26.5			10.2	4.9		9.1	7.6
Level of Service	C	D	C	C	C			B	A		A	A
Approach Delay (s)		32.5			27.0			9.7			9.0	
Approach LOS		C			C			A			A	

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)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.8%	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												
Volume (vph)	60	47	31	0	0	0	0	597	55	0	318	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1627						1125			1127	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1627						1125			1127	
Peak-hour factor, PHF	0.91	0.91	0.91	0.90	0.90	0.91	0.90	0.91	0.91	0.90	0.91	0.91
Adj. Flow (vph)	66	52	34	0	0	0	0	656	60	0	349	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	152	0	0	0	0	0	716	0	0	349	0
Confl. Peds. (#/hr)	7		8			7			13			11
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	0%	6%	0%	0%	0%	0%	5%	4%	0%	5%	0%
Parking (#/hr)								42			44	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		11.9						69.1			69.1	
Effective Green, g (s)		11.9						69.1			69.1	
Actuated g/C Ratio		0.13						0.77			0.77	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		6.0						3.0			3.0	
Lane Grp Cap (vph)		215						863			865	
v/s Ratio Prot								c0.64			0.31	
v/s Ratio Perm		0.09										
v/c Ratio		0.71						0.83			0.40	
Uniform Delay, d1		37.4						6.7			3.5	
Progression Factor		1.00						0.63			0.89	
Incremental Delay, d2		14.6						5.0			1.4	
Delay (s)		51.9						9.2			4.5	
Level of Service		D						A			A	
Approach Delay (s)		51.9			0.0			9.2			4.5	
Approach LOS		D			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	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												
Volume (vph)	109	1044	115	59	845	151	0	500	26	0	236	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	10	10	11	10	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.89	1.00	1.00	0.92		1.00	0.89		1.00	0.97
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1504	3210	1229	1548	3179	1215		1226	930		1061	882
Flt Permitted	0.15	1.00	1.00	0.12	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	231	3210	1229	201	3179	1215		1226	930		1061	882
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	120	1147	126	65	929	166	0	549	29	0	259	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	120	1147	126	65	929	166	0	549	29	0	259	33
Confl. Peds. (#/hr)	34		53	53		34			92			16
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	6%	3%	3%	3%	4%	8%	3%	5%	4%	3%	5%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		52	52
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.6	33.6	33.6	37.2	32.4	32.4		39.6	39.6		39.6	39.6
Effective Green, g (s)	39.6	33.6	33.6	37.2	32.4	32.4		39.6	39.6		39.6	39.6
Actuated g/C Ratio	0.44	0.37	0.37	0.41	0.36	0.36		0.44	0.44		0.44	0.44
Clearance Time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	186	1198	458	154	1144	437		539	409		466	388
v/s Ratio Prot	c0.04	c0.36		0.02	0.29			c0.45			0.24	
v/s Ratio Perm	0.24		0.10	0.15		0.14			0.03			0.04
v/c Ratio	0.65	0.96	0.28	0.42	0.81	0.38		1.02	0.07		0.56	0.09
Uniform Delay, d1	17.6	27.5	19.7	19.2	26.0	21.4		25.2	14.6		18.7	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.83	0.81		0.90	0.82
Incremental Delay, d2	7.5	17.6	1.5	1.9	6.3	2.5		35.8	0.2		4.3	0.4
Delay (s)	25.1	45.1	21.2	21.1	32.4	23.9		56.7	12.0		21.2	12.3
Level of Service	C	D	C	C	C	C		E	B		C	B
Approach Delay (s)		41.2			30.5			54.5			20.2	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	38.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.4%	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		↕			↕			↑	↗		↑	↗
Volume (vph)	24	27	24	26	8	53	0	611	13	0	448	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			0.95			1.00	0.95		1.00	0.97
Flpb, ped/bikes		0.99			1.00			1.00	1.00		1.00	1.00
Frt		0.96			0.92			1.00	0.85		1.00	0.85
Flt Protected		0.98			0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1543			1442			1054	1404		1154	1429
Flt Permitted		0.90			0.90			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1404			1324			1054	1404		1154	1429
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.95	0.91	0.91	0.95	0.91	0.91
Adj. Flow (vph)	26	30	26	29	9	58	0	671	14	0	492	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	82	0	0	96	0	0	671	14	0	492	8
Confl. Peds. (#/hr)	16		4	4		16			9			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	4%	0%	11%	4%	0%
Parking (#/hr)								54			42	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		12.0			12.0			69.0	69.0		69.0	69.0
Effective Green, g (s)		12.0			12.0			69.0	69.0		69.0	69.0
Actuated g/C Ratio		0.13			0.13			0.77	0.77		0.77	0.77
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		8.0			8.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		187			176			808	1076		884	1095
v/s Ratio Prot								c0.64			0.43	
v/s Ratio Perm		0.06			c0.07				0.01			0.01
v/c Ratio		0.44			0.55			0.83	0.01		0.56	0.01
Uniform Delay, d1		35.9			36.5			6.7	2.5		4.3	2.5
Progression Factor		1.00			1.00			0.73	0.79		0.67	0.78
Incremental Delay, d2		6.9			10.9			7.0	0.0		2.4	0.0
Delay (s)		42.8			47.3			12.0	2.0		5.3	1.9
Level of Service		D			D			B	A		A	A
Approach Delay (s)		42.8			47.3			11.8			5.2	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	53.9%	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												
Volume (vph)	178	579	43	62	663	226	0	579	24	0	200	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	10	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.93	1.00	0.98			1.00	0.97		1.00	0.94
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.96			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1533	3149	1372	1497	2945			1520	1271		1520	1155
Flt Permitted	0.12	1.00	1.00	0.32	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	197	3149	1372	506	2945			1520	1271		1520	1155
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.96	0.91	0.91	0.96	0.91	0.91
Adj. Flow (vph)	196	636	47	68	729	248	0	636	26	0	220	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	196	636	47	68	977	0	0	636	26	0	220	48
Confl. Peds. (#/hr)	43		37	37		43			26			60
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	4%	5%	0%	6%	5%	8%	2%	3%	0%	4%	3%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	38.8	32.8	32.8	36.4	31.6			39.4	39.4		39.4	39.4
Effective Green, g (s)	38.8	32.8	32.8	36.4	31.6			39.4	39.4		39.4	39.4
Actuated g/C Ratio	0.43	0.36	0.36	0.40	0.35			0.44	0.44		0.44	0.44
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	173	1147	500	257	1034			665	556		665	505
v/s Ratio Prot	c0.08	0.20		0.01	0.33			c0.42			0.14	
v/s Ratio Perm	c0.41		0.03	0.09					0.02			0.04
v/c Ratio	1.13	0.55	0.09	0.26	0.94			0.96	0.05		0.33	0.10
Uniform Delay, d1	21.1	22.8	18.8	17.0	28.4			24.5	14.5		16.6	14.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	108.6	1.9	0.4	0.6	17.5			25.7	0.2		1.3	0.4
Delay (s)	129.8	24.7	19.2	17.6	45.9			50.2	14.7		18.0	15.2
Level of Service	F	C	B	B	D			D	B		B	B
Approach Delay (s)		47.8			44.0			48.8			17.5	
Approach LOS		D			D			D			B	

Intersection Summary			
HCM 2000 Control Delay	43.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
1001: Ashland Ave. & W Irving Park Rd.

9/16/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	206	810	164	124	889	48	0	553	62	0	789	134
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91			1.00	1.00		0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.84	1.00	0.99			1.00	0.87		1.00	0.92
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	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1577	3160	1171	1544	4501			1253	890		3110	1195
Flt Permitted	0.14	1.00	1.00	0.16	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	231	3160	1171	253	4501			1253	890		3110	1195
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Adj. Flow (vph)	217	853	173	131	936	51	0	582	65	0	831	141
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	217	853	173	131	987	0	0	582	65	0	831	141
Confl. Peds. (#/hr)	72		69	69		72			81			59
Confl. Bikes (#/hr)			5			7			7			6
Heavy Vehicles (%)	1%	1%	2%	3%	0%	4%	2%	0%	3%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								36	36		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	41.7	31.5	31.5	32.9	25.7			58.3	58.3		58.3	58.3
Effective Green, g (s)	41.7	31.5	31.5	32.9	25.7			58.3	58.3		58.3	58.3
Actuated g/C Ratio	0.38	0.29	0.29	0.30	0.23			0.53	0.53		0.53	0.53
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	0.2	0.2	0.2	0.2	0.2			0.2	0.2		0.2	0.2
Lane Grp Cap (vph)	246	904	335	160	1051			664	471		1648	633
v/s Ratio Prot	c0.10	c0.27		0.05	0.22			c0.46			0.27	
v/s Ratio Perm	0.23		0.15	0.19					0.07			0.12
v/c Ratio	0.88	0.94	0.52	0.82	0.94			0.88	0.14		0.50	0.22
Uniform Delay, d1	27.0	38.4	32.9	30.9	41.4			22.7	13.1		16.6	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.24	1.31		1.00	1.00
Incremental Delay, d2	28.1	17.6	0.6	25.5	14.9			9.7	0.4		1.1	0.8
Delay (s)	55.1	55.9	33.4	56.3	56.3			37.9	17.5		17.7	14.6
Level of Service	E	E	C	E	E			D	B		B	B
Approach Delay (s)		52.7			56.3			35.8			17.2	
Approach LOS		D			E			D			B	

Intersection Summary			
HCM 2000 Control Delay	42.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.7%	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												
Volume (vph)	32	76	30	0	0	0	0	639	32	0	751	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.97						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1509						1158			1203	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1509						1158			1203	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.97	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	34	80	32	0	0	0	0	673	34	0	791	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	146	0	0	0	0	0	707	0	0	813	0
Confl. Peds. (#/hr)	23		20	20		23			22			11
Confl. Bikes (#/hr)			1			1			1			3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	3%	2%	5%
Parking (#/hr)								44			38	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		22.0						80.0			80.0	
Effective Green, g (s)		22.0						80.0			80.0	
Actuated g/C Ratio		0.20						0.73			0.73	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		301						842			874	
v/s Ratio Prot								0.61			c0.68	
v/s Ratio Perm		0.10										
v/c Ratio		0.49						0.84			0.93	
Uniform Delay, d1		39.0						10.5			12.6	
Progression Factor		1.00						0.81			0.82	
Incremental Delay, d2		5.5						8.4			15.9	
Delay (s)		44.5						16.9			26.2	
Level of Service		D						B			C	
Approach Delay (s)		44.5			0.0			16.9			26.2	
Approach LOS		D			A			B			C	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.1%	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												
Volume (vph)	119	596	69	134	493	77	0	408	40	0	633	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	10	10	9	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00	0.98		1.00	0.95
Flpb, ped/bikes	0.98	1.00		0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1508	2933		1564	2931			1189	1005		1250	1037
Flt Permitted	0.31	1.00		0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	494	2933		412	2931			1189	1005		1250	1037
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)	125	627	73	141	519	81	0	429	42	0	666	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	125	700	0	141	600	0	0	429	42	0	666	49
Confl. Peds. (#/hr)	30		19	19		30			2			25
Confl. Bikes (#/hr)			2			7						
Heavy Vehicles (%)	0%	3%	0%	1%	2%	0%	8%	1%	0%	2%	3%	0%
Parking (#/hr)								42	42		32	32
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	38.3	38.3		38.3	38.3			62.7	62.7		62.7	62.7
Effective Green, g (s)	38.3	38.3		38.3	38.3			62.7	62.7		62.7	62.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.57	0.57		0.57	0.57
Clearance Time (s)	5.0	5.0		5.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	172	1021		143	1020			677	572		712	591
v/s Ratio Prot		0.24			0.20			0.36			c0.53	
v/s Ratio Perm	0.25			c0.34					0.04			0.05
v/c Ratio	0.73	0.69		0.99	0.59			0.63	0.07		0.94	0.08
Uniform Delay, d1	31.3	30.7		35.6	29.4			15.9	10.6		21.8	10.7
Progression Factor	1.00	1.00		1.00	1.00			0.89	0.92		0.67	0.92
Incremental Delay, d2	14.2	1.9		70.4	0.9			3.8	0.2		10.6	0.1
Delay (s)	45.5	32.6		106.0	30.3			18.0	10.0		25.2	10.0
Level of Service	D	C		F	C			B	B		C	A
Approach Delay (s)		34.6			44.7			17.3			24.1	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.6%	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												
Volume (vph)	0	0	0	84	174	82	0	487	0	0	558	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	4.0
Lane Util. Factor					1.00			1.00			1.00	1.00
Frpb, ped/bikes					0.98			1.00			1.00	0.80
Flpb, ped/bikes					0.98			1.00			1.00	1.00
Frt					0.97			1.00			1.00	0.85
Flt Protected					0.99			1.00			1.00	1.00
Satd. Flow (prot)					1592			1499			1126	774
Flt Permitted					0.99			1.00			1.00	1.00
Satd. Flow (perm)					1592			1499			1126	774
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)	0	0	0	88	183	86	0	513	0	0	587	48
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	357	0	0	513	0	0	587	48
Confl. Peds. (#/hr)			25	25		26			18			39
Confl. Bikes (#/hr)			1			1			6			5
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								6			48	48
Turn Type				Perm	NA			NA	Perm		NA	Perm
Protected Phases					8			2			6	
Permitted Phases				8					2			6
Actuated Green, G (s)					32.0			70.0			70.0	70.0
Effective Green, g (s)					32.0			70.0			70.0	70.0
Actuated g/C Ratio					0.29			0.64			0.64	0.64
Clearance Time (s)					4.0			4.0			4.0	4.0
Lane Grp Cap (vph)					463			953			716	492
v/s Ratio Prot								0.34			c0.52	
v/s Ratio Perm					0.22							0.06
v/c Ratio					0.77			0.54			0.82	0.10
Uniform Delay, d1					35.7			11.1			15.2	7.8
Progression Factor					1.00			1.14			0.71	0.89
Incremental Delay, d2					11.8			1.4			5.8	0.2
Delay (s)					47.4			14.0			16.6	7.1
Level of Service					D			B			B	A
Approach Delay (s)		0.0			47.4			14.0			15.8	
Approach LOS		A			D			B			B	

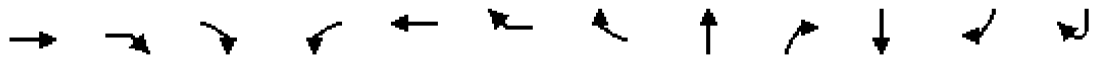
Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	218	33	18	22	25	0	531	22	0	462	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.95			0.99			0.95	
Flpb, ped/bikes		0.97			0.98			1.00			1.00	
Frt		0.99			0.95			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1546			1469			1346			1432	
Flt Permitted		0.88			0.87			1.00			1.00	
Satd. Flow (perm)		1379			1303			1346			1432	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	116	229	35	19	23	26	0	559	23	0	486	55
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	380	0	0	68	0	0	582	0	0	541	0
Confl. Peds. (#/hr)	42		71	71		42			29			139
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	2%	0%	3%	0%	0%	0%	0%	1%	0%	1%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								22			0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			62.0			62.0	
Effective Green, g (s)		40.0			40.0			62.0			62.0	
Actuated g/C Ratio		0.36			0.36			0.56			0.56	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		501			473			758			807	
v/s Ratio Prot								c0.43			0.38	
v/s Ratio Perm		c0.28			0.05							
v/c Ratio		0.76			0.14			0.77			0.67	
Uniform Delay, d1		30.8			23.5			18.5			16.8	
Progression Factor		1.00			1.00			0.55			0.47	
Incremental Delay, d2		10.3			0.6			5.0			2.5	
Delay (s)		41.1			24.1			15.2			10.3	
Level of Service		D			C			B			B	
Approach Delay (s)		41.1			24.1			15.2			10.3	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	EBR2	WBL	WBT	WBR	WBR2	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	396	57	38	12	366	156	77	561	71	449	35	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	11	10	12	11	11	11	11	11
Total Lost time (s)	5.0	5.0			5.0	5.0		6.0	6.0	6.0	6.0	
Lane Util. Factor	0.95	1.00			0.95	1.00		1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	0.89			1.00	0.81		1.00	0.73	1.00	0.89	
Flpb, ped/bikes	1.00	1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Frt	1.00	0.85			1.00	0.85		1.00	0.85	1.00	0.85	
Flt Protected	1.00	1.00			1.00	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (prot)	3210	1279			3264	1076		1331	832	1506	1314	
Flt Permitted	1.00	1.00			0.93	1.00		1.00	1.00	1.00	1.00	
Satd. Flow (perm)	3210	1279			3054	1076		1331	832	1506	1314	
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)	417	60	40	13	385	164	81	591	75	473	37	4
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	417	100	0	0	398	245	0	591	75	473	41	0
Confl. Peds. (#/hr)		44		44		76			95		63	
Confl. Bikes (#/hr)		5				13			11		6	
Heavy Vehicles (%)	3%	4%	0%	0%	1%	11%	1%	2%	0%	4%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								24	24	0		
Turn Type	NA	Perm		Perm	NA	Perm		NA	Perm	NA	Perm	
Protected Phases	10				14			2		6		
Permitted Phases		10		14		14			2		6	
Actuated Green, G (s)	27.0	27.0			27.0	27.0		51.0	51.0	51.0	51.0	
Effective Green, g (s)	27.0	27.0			27.0	27.0		51.0	51.0	51.0	51.0	
Actuated g/C Ratio	0.25	0.25			0.25	0.25		0.46	0.46	0.46	0.46	
Clearance Time (s)	5.0	5.0			5.0	5.0		6.0	6.0	6.0	6.0	
Lane Grp Cap (vph)	787	313			749	264		617	385	698	609	
v/s Ratio Prot	0.13							c0.44		0.31		
v/s Ratio Perm		0.08			0.13	c0.23			0.09		0.03	
v/c Ratio	0.53	0.32			0.53	0.93		0.96	0.19	0.68	0.07	
Uniform Delay, d1	36.0	34.0			36.0	40.6		28.5	17.4	23.1	16.3	
Progression Factor	1.00	1.00			1.00	1.00		1.01	1.17	0.66	0.87	
Incremental Delay, d2	2.5	2.7			2.7	39.6		20.7	0.7	3.9	0.2	
Delay (s)	38.5	36.7			38.7	80.1		49.4	21.1	19.2	14.4	
Level of Service	D	D			D	F		D	C	B	B	
Approach Delay (s)	38.2				54.5			46.2		18.8		
Approach LOS	D				D			D		B		

Intersection Summary			
HCM 2000 Control Delay	54.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	114.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

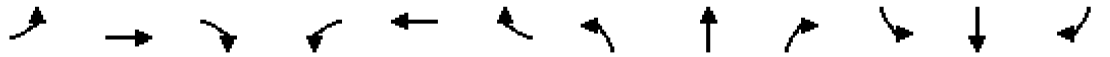
Movement	SEL2	SEL	SET	SER	SER2	NWL2	NWL	NWT	NWR	NWR2
Lane Configurations										
Volume (vph)	4	53	271	93	12	7	31	279	97	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	10	10	11	12	9	10	10	11
Total Lost time (s)		6.0	6.0				6.0	6.0		
Lane Util. Factor		1.00	0.95				1.00	0.95		
Frpb, ped/bikes		1.00	1.00				1.00	1.00		
Flpb, ped/bikes		1.00	1.00				1.00	1.00		
Frt		1.00	0.96				1.00	0.96		
Flt Protected		0.95	1.00				0.95	1.00		
Satd. Flow (prot)		1511	3007				1539	3047		
Flt Permitted		0.28	1.00				0.30	1.00		
Satd. Flow (perm)		451	3007				479	3047		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	56	285	98	13	7	33	294	102	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	60	396	0	0	0	40	404	0	0
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Heavy Vehicles (%)	0%	2%	2%	1%	0%	0%	0%	0%	0%	25%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Turn Type	Perm	Perm	NA			Perm	Perm	NA		
Protected Phases			4					8		
Permitted Phases	4	4				8	8			
Actuated Green, G (s)		15.0	15.0				15.0	15.0		
Effective Green, g (s)		15.0	15.0				15.0	15.0		
Actuated g/C Ratio		0.14	0.14				0.14	0.14		
Clearance Time (s)		6.0	6.0				6.0	6.0		
Lane Grp Cap (vph)		61	410				65	415		
v/s Ratio Prot			0.13					0.13		
v/s Ratio Perm		c0.13					0.08			
v/c Ratio		0.98	0.97				0.62	0.97		
Uniform Delay, d1		47.4	47.2				44.8	47.3		
Progression Factor		1.00	1.00				1.00	1.00		
Incremental Delay, d2		110.7	36.7				36.6	38.0		
Delay (s)		158.0	83.9				81.4	85.3		
Level of Service		F	F				F	F		
Approach Delay (s)			93.7					85.0		
Approach LOS			F					F		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	306	32	0	651	0	0	732	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.98	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.99			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1907			1413			1238	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1907			1413			1238	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	0	0	0	136	322	34	0	685	0	0	771	49
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	492	0	0	685	0	0	820	0
Confl. Peds. (#/hr)			40	40		26			33			56
Confl. Bikes (#/hr)			2			2			2			3
Heavy Vehicles (%)	0%	0%	0%	3%	0%	3%	0%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								16			30	30
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					29.0			73.0			73.0	
Effective Green, g (s)					29.0			73.0			73.0	
Actuated g/C Ratio					0.26			0.66			0.66	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					502			937			821	
v/s Ratio Prot								0.48			c0.66	
v/s Ratio Perm					0.26							
v/c Ratio					0.98			0.73			1.00	
Uniform Delay, d1					40.2			12.1			18.5	
Progression Factor					1.00			0.90			0.66	
Incremental Delay, d2					35.5			2.1			28.8	
Delay (s)					75.7			12.9			41.0	
Level of Service					E			B			D	
Approach Delay (s)		0.0			75.7			12.9			41.0	
Approach LOS		A			E			B			D	

Intersection Summary			
HCM 2000 Control Delay	39.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.0%	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												
Volume (vph)	120	229	107	0	0	0	0	657	68	0	696	75
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.99						0.99			0.99	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.97						0.99			0.99	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1666						1373			1401	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1666						1373			1401	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.96	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	126	241	113	0	0	0	0	692	72	0	733	79
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	480	0	0	0	0	0	764	0	0	812	0
Confl. Peds. (#/hr)	27		8			27			11			22
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	2%	2%	1%	0%	0%	43%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								16	16		8	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		34.0						68.0			68.0	
Effective Green, g (s)		34.0						68.0			68.0	
Actuated g/C Ratio		0.31						0.62			0.62	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		514						848			866	
v/s Ratio Prot								0.56			c0.58	
v/s Ratio Perm		0.29										
v/c Ratio		0.93						0.90			0.94	
Uniform Delay, d1		36.9						18.1			19.1	
Progression Factor		1.00						1.58			0.54	
Incremental Delay, d2		26.3						11.8			7.2	
Delay (s)		63.2						40.3			17.5	
Level of Service		E						D			B	
Approach Delay (s)		63.2			0.0			40.3			17.5	
Approach LOS		E			A			D			B	

Intersection Summary			
HCM 2000 Control Delay	36.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.8%	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												
Volume (vph)	168	533	55	170	639	83	0	735	70	0	1014	98
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	10	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95	1.00		0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.99			1.00	0.91		1.00	0.79
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1577	3060		1557	3044			2357	587		2921	1143
Flt Permitted	0.19	1.00		0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	312	3060		414	3044			2357	587		2921	1143
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	177	561	58	179	673	87	0	774	74	0	1067	103
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	177	619	0	179	760	0	0	774	74	0	1067	103
Confl. Peds. (#/hr)	29		30	30		29			17			52
Confl. Bikes (#/hr)			12			7			9			8
Heavy Vehicles (%)	1%	2%	0%	2%	2%	1%	0%	1%	0%	4%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								92	92		16	
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	46.0	34.0		48.0	35.0			52.0	52.0		52.0	52.0
Effective Green, g (s)	46.0	34.0		48.0	35.0			52.0	52.0		52.0	52.0
Actuated g/C Ratio	0.42	0.31		0.44	0.32			0.47	0.47		0.47	0.47
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	268	945		315	968			1114	277		1380	540
v/s Ratio Prot	c0.07	0.20		c0.07	c0.25			0.33			c0.37	
v/s Ratio Perm	0.20			0.18					0.13			0.09
v/c Ratio	0.66	0.66		0.57	0.79			0.69	0.27		0.77	0.19
Uniform Delay, d1	22.7	32.9		20.9	34.1			22.8	17.5		24.1	16.8
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		0.77	0.86
Incremental Delay, d2	12.1	3.5		7.3	6.4			3.6	2.4		3.3	0.6
Delay (s)	34.8	36.5		28.2	40.5			26.4	19.9		21.9	15.1
Level of Service	C	D		C	D			C	B		C	B
Approach Delay (s)		36.1			38.1			25.8			21.3	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.2%	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												
Volume (vph)	54	211	49	96	209	31	0	676	54	0	718	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			0.99			0.99			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1547			1568			1206			1486	
Flt Permitted		0.84			0.68			1.00			1.00	
Satd. Flow (perm)		1308			1077			1206			1486	
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	222	52	101	220	33	0	712	57	0	756	46
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	331	0	0	354	0	0	769	0	0	802	0
Confl. Peds. (#/hr)	9		11	11		9			8			20
Confl. Bikes (#/hr)			3						1			2
Heavy Vehicles (%)	0%	0%	4%	0%	0%	0%	6%	1%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		40.0			40.0			82.0			82.0	
Effective Green, g (s)		40.0			40.0			82.0			82.0	
Actuated g/C Ratio		0.31			0.31			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		402			331			760			937	
v/s Ratio Prot								c0.64			0.54	
v/s Ratio Perm		0.25			c0.33							
v/c Ratio		0.82			1.07			1.01			0.86	
Uniform Delay, d1		41.7			45.0			24.0			19.3	
Progression Factor		1.00			1.00			0.34			1.00	
Incremental Delay, d2		17.2			69.1			23.3			9.9	
Delay (s)		58.9			114.1			31.3			29.2	
Level of Service		E			F			C			C	
Approach Delay (s)		58.9			114.1			31.3			29.2	
Approach LOS		E			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	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												
Volume (vph)	148	648	16	96	524	28	0	730	75	0	679	170
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	9	10	9	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0		2.0	5.0	5.0		5.0	5.0		5.0	2.0
Lane Util. Factor	1.00	0.95		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.93		1.00	0.93		1.00	0.93
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		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1580	3144		1536	1631	1234		1516	1180		1520	1212
Flt Permitted	0.10	1.00		0.22	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	173	3144		350	1631	1234		1516	1180		1520	1212
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	156	682	17	101	552	29	0	768	79	0	715	179
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	156	699	0	101	552	29	0	768	79	0	715	179
Confl. Peds. (#/hr)	21		21	21		21			34			20
Confl. Bikes (#/hr)			9			2			6			
Heavy Vehicles (%)	1%	1%	0%	0%	3%	4%	0%	1%	1%	9%	3%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								4	4		0	0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	pm+ov
Protected Phases	7	4		3	8			2 10			6	7
Permitted Phases	4			8		8			2 10			6
Actuated Green, G (s)	49.8	41.8		52.2	43.0	43.0		67.0	67.0		64.0	72.0
Effective Green, g (s)	49.8	41.8		52.2	43.0	43.0		65.0	65.0		64.0	72.0
Actuated g/C Ratio	0.38	0.32		0.40	0.33	0.33		0.50	0.50		0.49	0.55
Clearance Time (s)	2.0	5.0		2.0	5.0	5.0					5.0	2.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0					3.0	3.0
Lane Grp Cap (vph)	152	1010		224	539	408		758	590		748	671
v/s Ratio Prot	c0.06	0.22		c0.03	c0.34			c0.51			0.47	0.02
v/s Ratio Perm	0.33			0.15		0.02			0.07			0.13
v/c Ratio	1.03	0.69		0.45	1.02	0.07		1.01	0.13		0.96	0.27
Uniform Delay, d1	34.0	38.5		26.6	43.5	29.8		32.5	17.4		31.6	15.2
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.45	0.57		1.15	1.19
Incremental Delay, d2	80.1	3.9		1.4	45.0	0.3		19.0	0.1		16.4	0.1
Delay (s)	114.1	42.4		28.0	88.5	30.1		33.6	10.0		52.8	18.3
Level of Service	F	D		C	F	C		C	A		D	B
Approach Delay (s)		55.5			77.1			31.4			45.9	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	51.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL2	WBT	WBR	NBT	NBR	SBT	SBR	SBR2	NEL
Lane Configurations											
Volume (vph)	509	209	28	560	157	739	32	687	20	7	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	16
Total Lost time (s)	5.0			5.0		5.0		5.0			
Lane Util. Factor	0.95			0.95		1.00		1.00			
Frpb, ped/bikes	0.98			0.99		1.00		1.00			
Flpb, ped/bikes	1.00			1.00		1.00		1.00			
Frt	0.96			0.97		0.99		0.99			
Flt Protected	1.00			1.00		1.00		1.00			
Satd. Flow (prot)	3095			3134		1540		1449			
Flt Permitted	1.00			0.90		1.00		1.00			
Satd. Flow (perm)	3095			2817		1540		1449			
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92
Adj. Flow (vph)	536	220	29	589	165	778	34	723	21	7	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	756	0	0	783	0	812	0	751	0	0	0
Confl. Peds. (#/hr)		34			11						
Heavy Vehicles (%)	0%	0%	0%	1%	2%	1%	3%	4%	0%	14%	2%
Parking (#/hr)						0		6			
Turn Type	NA		Perm	NA		NA		NA			
Protected Phases	4			8		2		6			10
Permitted Phases			8								
Actuated Green, G (s)	56.0			56.0		64.0		64.0			
Effective Green, g (s)	56.0			56.0		64.0		64.0			
Actuated g/C Ratio	0.43			0.43		0.49		0.49			
Clearance Time (s)	5.0			5.0		5.0		5.0			
Vehicle Extension (s)	3.0			3.0		3.0		3.0			
Lane Grp Cap (vph)	1333			1213		758		713			
v/s Ratio Prot	0.24					c0.53		0.52			
v/s Ratio Perm				c0.28							
v/c Ratio	0.57			0.65		1.07		1.05			
Uniform Delay, d1	27.9			29.2		33.0		33.0			
Progression Factor	1.00			1.00		0.68		0.52			
Incremental Delay, d2	1.8			2.7		40.0		37.9			
Delay (s)	29.6			31.8		62.4		55.1			
Level of Service	C			C		E		E			
Approach Delay (s)	29.6			31.8		62.4		55.1			0.0
Approach LOS	C			C		E		E			A

Intersection Summary			
HCM 2000 Control Delay	44.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	95.6%	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												
Volume (vph)	104	216	9	220	360	22	0	786	133	0	728	86
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.97		1.00			1.00	0.96		1.00	0.97
Flpb, ped/bikes		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frt		1.00	0.85		0.99			1.00	0.85		1.00	0.85
Flt Protected		0.98	1.00		0.98			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1651	1384		3092			1550	1259		1491	1413
Flt Permitted		0.52	1.00		0.63			1.00	1.00		1.00	1.00
Satd. Flow (perm)		871	1384		1970			1550	1259		1491	1413
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	109	227	9	232	379	23	0	827	140	0	766	91
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	336	9	0	634	0	0	827	140	0	766	91
Confl. Peds. (#/hr)	4		4	4		4			6			6
Heavy Vehicles (%)	0%	0%	0%	1%	0%	5%	0%	1%	0%	10%	5%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								0	0		0	
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		51.0	51.0		51.0			71.0	71.0		71.0	71.0
Effective Green, g (s)		51.0	51.0		51.0			71.0	71.0		71.0	71.0
Actuated g/C Ratio		0.39	0.39		0.39			0.55	0.55		0.55	0.55
Clearance Time (s)		4.0	4.0		4.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		341	542		772			846	687		814	771
v/s Ratio Prot								c0.53			0.51	
v/s Ratio Perm		c0.39	0.01		0.32				0.11			0.06
v/c Ratio		0.99	0.02		0.89dl			0.98	0.20		0.94	0.12
Uniform Delay, d1		39.1	24.2		35.4			28.7	15.1		27.5	14.3
Progression Factor		1.00	1.00		1.00			1.03	1.07		0.96	1.24
Incremental Delay, d2		45.2	0.1		9.6			23.9	0.6		9.4	0.1
Delay (s)		84.3	24.2		45.0			53.6	16.8		35.9	17.8
Level of Service		F	C		D			D	B		D	B
Approach Delay (s)		82.8			45.0			48.3			34.0	
Approach LOS		F			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	47.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		

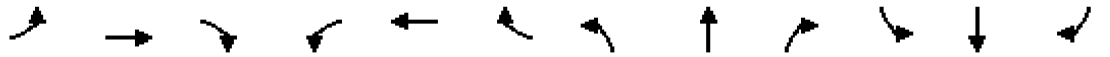
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	319	70	0	518	218	0	545	1	0	695	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	9	16	16	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0		4.0	3.0		4.0			3.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.98		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	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1596	1647	1336		2020	1480		1550			1515	
Flt Permitted	0.10	1.00	1.00		1.00	1.00		1.00			1.00	
Satd. Flow (perm)	166	1647	1336		2020	1480		1550			1515	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	21	336	74	0	545	229	0	574	1	0	732	19
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	21	336	74	0	545	229	0	575	0	0	751	0
Confl. Peds. (#/hr)	8		9	9		8			3			1
Heavy Vehicles (%)	0%	2%	1%	0%	1%	0%	0%	1%	0%	5%	3%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm		NA	custom		NA			NA	
Protected Phases		4			8	1		2			6	
Permitted Phases	4		4			8						
Actuated Green, G (s)	43.0	43.0	43.0		43.0	50.0		69.0			80.0	
Effective Green, g (s)	43.0	43.0	43.0		43.0	50.0		69.0			80.0	
Actuated g/C Ratio	0.33	0.33	0.33		0.33	0.38		0.53			0.62	
Clearance Time (s)	4.0	4.0	4.0		4.0	3.0		4.0			3.0	
Lane Grp Cap (vph)	54	544	441		668	569		822			932	
v/s Ratio Prot		0.20			c0.27	0.02		0.37			c0.50	
v/s Ratio Perm	0.13		0.06			0.13						
v/c Ratio	0.39	0.62	0.17		0.82	0.40		0.70			0.81	
Uniform Delay, d1	33.4	36.6	30.8		39.9	29.1		22.8			19.1	
Progression Factor	1.00	1.00	1.00		1.00	1.00		0.87			0.50	
Incremental Delay, d2	19.8	5.2	0.8		10.6	2.1		3.3			3.1	
Delay (s)	53.2	41.8	31.6		50.5	31.2		23.1			12.6	
Level of Service	D	D	C		D	C		C			B	
Approach Delay (s)		40.6			44.8			23.1			12.6	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	75.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



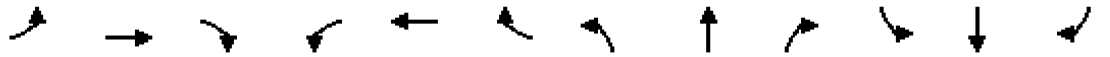
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	448	287	29	5	412	0	165	271	21	0	572	229
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	10	10	16	16	16	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Lane Util. Factor	0.97	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	0.95
Flpb, ped/bikes	1.00	1.00			1.00		1.00	1.00			1.00	1.00
Frt	1.00	0.99			1.00		1.00	0.99			1.00	0.85
Flt Protected	0.95	1.00			1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	3175	1608			1980		1637	1467			1689	1231
Flt Permitted	0.95	1.00			1.00		0.17	1.00			1.00	1.00
Satd. Flow (perm)	3175	1608			1972		295	1467			1689	1231
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	472	302	31	5	434	0	174	285	22	0	602	241
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	472	333	0	0	439	0	174	307	0	0	602	241
Confl. Peds. (#/hr)	6		5	5		6	15		12			15
Heavy Vehicles (%)	1%	3%	0%	0%	3%	0%	1%	4%	5%	11%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	0	0
Parking (#/hr)								0				0
Turn Type	Prot	NA		Perm	NA		pm+pt	NA			NA	pm+ov
Protected Phases	7	4			8		5	2			6	7
Permitted Phases				8			2					6
Actuated Green, G (s)	20.9	55.3			31.4		65.7	65.7			55.9	76.8
Effective Green, g (s)	20.9	55.3			31.4		65.7	65.7			55.9	76.8
Actuated g/C Ratio	0.16	0.43			0.24		0.51	0.51			0.43	0.59
Clearance Time (s)	3.0	5.0			5.0		2.0	4.0			4.0	3.0
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	510	684			476		229	741			726	727
v/s Ratio Prot	c0.15	0.21					c0.05	0.21			c0.36	0.05
v/s Ratio Perm					c0.22		0.34					0.14
v/c Ratio	0.93	0.49			0.92		0.76	0.41			0.83	0.33
Uniform Delay, d1	53.8	27.1			48.1		24.0	20.1			32.8	13.5
Progression Factor	1.00	1.00			1.00		1.05	0.83			0.88	0.66
Incremental Delay, d2	22.8	0.5			23.4		9.1	1.1			7.5	0.2
Delay (s)	76.5	27.6			71.5		34.3	17.7			36.4	9.1
Level of Service	E	C			E		C	B			D	A
Approach Delay (s)		56.3			71.5			23.7			28.6	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	43.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	98.3%	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												
Volume (vph)	2	185	16	113	265	9	0	489	107	0	573	100
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.95		1.00			1.00	0.54		1.00	0.90
Flpb, ped/bikes		1.00	1.00		0.99			1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00			1.00	0.85		1.00	0.85
Flt Protected		1.00	1.00		0.99			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1713	1451		1692			989	795		1520	1261
Flt Permitted		1.00	1.00		0.75			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1709	1451		1286			989	795		1520	1261
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	2	195	17	119	279	9	0	515	113	0	603	105
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	197	17	0	407	0	0	515	113	0	603	105
Confl. Peds. (#/hr)	62		8	8		62			125			24
Heavy Vehicles (%)	0%	5%	0%	5%	3%	0%	0%	2%	0%	50%	3%	5%
Parking (#/hr)								64			0	
Turn Type	Perm	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)		47.0	47.0		47.0			74.0	74.0		74.0	74.0
Effective Green, g (s)		47.0	47.0		47.0			74.0	74.0		74.0	74.0
Actuated g/C Ratio		0.36	0.36		0.36			0.57	0.57		0.57	0.57
Clearance Time (s)		5.0	5.0		5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		3.0	3.0		3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		617	524		464			562	452		865	717
v/s Ratio Prot								c0.52			0.40	
v/s Ratio Perm		0.12	0.01		c0.32				0.14			0.08
v/c Ratio		0.32	0.03		0.88			0.92	0.25		0.70	0.15
Uniform Delay, d1		30.0	26.8		38.8			25.2	14.1		20.0	13.2
Progression Factor		1.00	1.00		1.00			1.18	1.23		0.34	0.49
Incremental Delay, d2		1.4	0.1		16.8			19.6	1.1		3.6	0.3
Delay (s)		31.3	26.9		55.6			49.4	18.5		10.4	6.8
Level of Service		C	C		E			D	B		B	A
Approach Delay (s)		31.0			55.6			43.8			9.9	
Approach LOS		C			E			D			A	

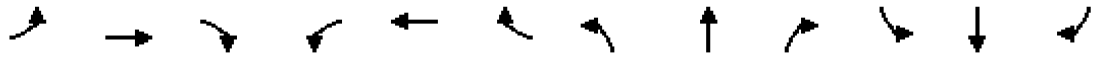
Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	4	74	9	4	26	0	551	3	0	675	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.95			0.97			1.00			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.91			0.91			1.00			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1414			1456			1300			1473	
Flt Permitted		0.90			0.95			1.00			1.00	
Satd. Flow (perm)		1297			1396			1300			1473	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	34	4	78	9	4	27	0	580	3	0	711	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	116	0	0	40	0	0	583	0	0	719	0
Confl. Peds. (#/hr)	6		15	15		6						8
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	8%	3%	0%	0%	6%	12%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			104.0			104.0	
Effective Green, g (s)		18.0			18.0			104.0			104.0	
Actuated g/C Ratio		0.14			0.14			0.80			0.80	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		179			193			1040			1178	
v/s Ratio Prot								0.45			c0.49	
v/s Ratio Perm		c0.09			0.03							
v/c Ratio		0.65			0.21			0.56			0.61	
Uniform Delay, d1		53.0			49.7			4.7			5.1	
Progression Factor		1.00			1.00			0.60			0.37	
Incremental Delay, d2		10.6			1.1			1.5			1.6	
Delay (s)		63.6			50.8			4.3			3.5	
Level of Service		E			D			A			A	
Approach Delay (s)		63.6			50.8			4.3			3.5	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.8%	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												
Volume (vph)	101	584	57	140	558	34	0	594	143	0	718	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	9	9	9	9	9	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.94		1.00	0.94
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1480	3900		1516	4289			1250	985		1177	886
Flt Permitted	0.20	1.00		0.17	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	314	3900		278	4289			1250	985		1177	886
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	106	615	60	147	587	36	0	625	151	0	756	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	106	675	0	147	623	0	0	625	151	0	756	31
Confl. Peds. (#/hr)			48	48					21			20
Heavy Vehicles (%)	4%	11%	4%	1%	2%	6%	2%	3%	3%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		42	42
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	30.0	23.0		30.0	23.0			89.0	89.0		89.0	89.0
Effective Green, g (s)	30.0	23.0		30.0	23.0			89.0	89.0		89.0	89.0
Actuated g/C Ratio	0.23	0.18		0.23	0.18			0.68	0.68		0.68	0.68
Clearance Time (s)	3.0	4.0		3.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	135	690		130	758			855	674		805	606
v/s Ratio Prot	0.04	0.17		c0.06	0.15			0.50			c0.64	
v/s Ratio Perm	0.14			c0.20					0.15			0.03
v/c Ratio	0.79	0.98		1.13	0.82			0.73	0.22		0.94	0.05
Uniform Delay, d1	43.1	53.3		46.5	51.5			12.9	7.6		18.1	6.7
Progression Factor	1.00	1.00		1.00	1.00			0.82	0.78		0.51	0.52
Incremental Delay, d2	25.2	29.3		118.4	9.8			4.7	0.7		17.6	0.1
Delay (s)	68.3	82.6		164.8	61.3			15.4	6.6		26.8	3.6
Level of Service	E	F		F	E			B	A		C	A
Approach Delay (s)		80.7			81.1			13.7			25.9	
Approach LOS		F			F			B			C	

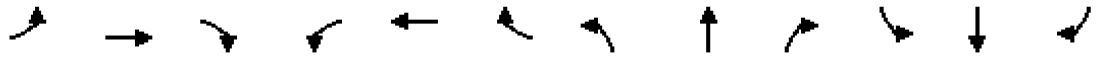
Intersection Summary			
HCM 2000 Control Delay	50.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	40	5	39	24	66	0	593	26	0	788	16
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	11	11	11	11	11	11	11	11	11
Total Lost time (s)		3.0			3.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.96			1.00			1.00	
Flpb, ped/bikes		0.98			0.97			1.00			1.00	
Frt		0.99			0.93			0.99			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1860			1456			1146			1438	
Flt Permitted		0.72			0.90			1.00			1.00	
Satd. Flow (perm)		1381			1324			1146			1438	
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)	60	42	5	41	25	69	0	624	27	0	829	17
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	107	0	0	135	0	0	651	0	0	846	0
Confl. Peds. (#/hr)	18		38	38		18			5			47
Heavy Vehicles (%)	4%	0%	20%	5%	0%	2%	4%	1%	0%	1%	1%	0%
Parking (#/hr)								46			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			100.0			100.0	
Effective Green, g (s)		24.0			24.0			100.0			100.0	
Actuated g/C Ratio		0.18			0.18			0.77			0.77	
Clearance Time (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		254			244			881			1106	
v/s Ratio Prot								0.57			c0.59	
v/s Ratio Perm		0.08			c0.10							
v/c Ratio		0.42			0.55			0.74			0.76	
Uniform Delay, d1		46.9			48.1			8.0			8.4	
Progression Factor		1.00			1.00			0.76			0.85	
Incremental Delay, d2		5.1			8.8			5.4			2.5	
Delay (s)		51.9			56.9			11.6			9.6	
Level of Service		D			E			B			A	
Approach Delay (s)		51.9			56.9			11.6			9.6	
Approach LOS		D			E			B			A	

Intersection Summary			
HCM 2000 Control Delay	16.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	68.2%	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												
Volume (vph)	33	236	73	0	340	77	0	363	2	0	804	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	11	11	11	11	11	8	11	11	11
Total Lost time (s)	5.0	5.0			5.0	3.0		5.0			5.0	
Lane Util. Factor	1.00	1.00			1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.90		1.00			1.00	
Flpb, ped/bikes	0.95	1.00			1.00	1.00		1.00			1.00	
Frt	1.00	0.96			1.00	0.85		1.00			1.00	
Flt Protected	0.95	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1435	1592			1706	1312		1705			1535	
Flt Permitted	0.32	1.00			1.00	1.00		1.00			1.00	
Satd. Flow (perm)	488	1592			1706	1312		1705			1535	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.95	0.95	0.90	0.95	0.95	0.90	0.95	0.95
Adj. Flow (vph)	35	248	77	0	358	81	0	382	2	0	846	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	35	325	0	0	358	81	0	384	0	0	848	0
Confl. Peds. (#/hr)	49		18			49						5
Heavy Vehicles (%)	6%	5%	3%	0%	2%	1%	8%	2%	0%	5%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA			NA	custom		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4					3 8						
Actuated Green, G (s)	32.0	32.0			37.0	37.0		83.0			83.0	
Effective Green, g (s)	32.0	32.0			37.0	37.0		83.0			83.0	
Actuated g/C Ratio	0.25	0.25			0.28	0.28		0.64			0.64	
Clearance Time (s)	5.0	5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)	120	391			485	373		1088			980	
v/s Ratio Prot		c0.20			c0.21			0.23			c0.55	
v/s Ratio Perm	0.07					0.06						
v/c Ratio	0.29	0.83			0.74	0.22		0.35			0.87	
Uniform Delay, d1	39.8	46.4			42.1	35.5		11.0			19.0	
Progression Factor	1.00	1.00			1.00	1.00		0.41			0.62	
Incremental Delay, d2	6.1	18.3			9.7	1.3		0.7			8.7	
Delay (s)	45.9	64.7			51.8	36.8		5.2			20.5	
Level of Service	D	E			D	D		A			C	
Approach Delay (s)		62.9			49.0			5.2			20.5	
Approach LOS		E			D			A			C	

Intersection Summary			
HCM 2000 Control Delay	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

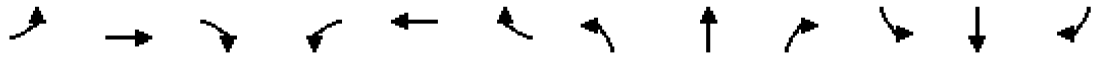
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	461	29	251	716	15	0	408	144	0	680	183
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.66	1.00	1.00	0.56		1.00	0.68		1.00	0.67
Flpb, ped/bikes	0.86	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1421	3179	978	1577	3160	806		1464	1007		1550	866
Flt Permitted	0.34	1.00	1.00	0.33	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	508	3179	978	544	3160	806		1464	1007		1550	866
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.93	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	109	485	31	264	754	16	0	429	152	0	716	193
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	109	485	31	264	754	16	0	429	152	0	716	193
Confl. Peds. (#/hr)	169		130	130		169			244			272
Confl. Bikes (#/hr)						3						5
Heavy Vehicles (%)	0%	4%	0%	1%	1%	0%	7%	1%	0%	0%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								10			0	0
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.0	39.0	39.0	53.0	53.0	53.0		67.0	67.0		67.0	67.0
Effective Green, g (s)	39.0	39.0	39.0	53.0	53.0	53.0		67.0	67.0		67.0	67.0
Actuated g/C Ratio	0.30	0.30	0.30	0.41	0.41	0.41		0.52	0.52		0.52	0.52
Clearance Time (s)	5.0	5.0	5.0	3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	152	953	293	309	1288	328		754	518		798	446
v/s Ratio Prot		0.15		c0.07	0.24			0.29			c0.46	
v/s Ratio Perm	0.21		0.03	c0.28		0.02			0.15			0.22
v/c Ratio	0.72	0.51	0.11	0.85	0.59	0.05		0.57	0.29		0.90	0.43
Uniform Delay, d1	40.6	37.6	32.9	32.3	30.0	23.3		21.6	18.0		28.4	19.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.97	1.03		0.48	0.42
Incremental Delay, d2	25.1	1.9	0.7	24.8	2.0	0.3		2.6	1.2		8.0	1.5
Delay (s)	65.7	39.5	33.6	57.1	31.9	23.5		23.6	19.8		21.8	9.8
Level of Service	E	D	C	E	C	C		C	B		C	A
Approach Delay (s)		43.8			38.2			22.6			19.2	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	31.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

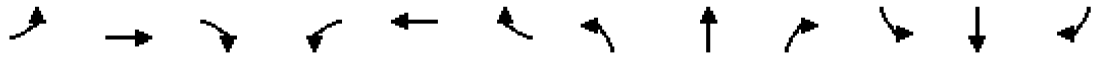
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	325	58	94	523	62	0	463	130	0	743	181
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	9	10	9	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	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	0.94		1.00	0.81		1.00	0.95
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1565	1723	1426	1499	1663	1288		1365	1189		1255	1395
Flt Permitted	0.17	1.00	1.00	0.39	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	283	1723	1426	610	1663	1288		1365	1189		1255	1395
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	126	342	61	99	551	65	0	487	137	0	782	191
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	126	342	61	99	551	65	0	487	137	0	782	191
Confl. Peds. (#/hr)	14		5	5		14			37			6
Heavy Vehicles (%)	2%	1%	0%	2%	1%	0%	0%	2%	1%	2%	4%	1%
Parking (#/hr)								20			30	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	51.0	51.0	51.0	51.0	51.0	51.0		73.0	73.0		73.0	73.0
Effective Green, g (s)	51.0	51.0	51.0	51.0	51.0	51.0		73.0	73.0		73.0	73.0
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.56	0.56		0.56	0.56
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	111	675	559	239	652	505		766	667		704	783
v/s Ratio Prot		0.20			0.33			0.36			c0.62	
v/s Ratio Perm	c0.44		0.04	0.16		0.05			0.12			0.14
v/c Ratio	1.14	0.51	0.11	0.41	0.85	0.13		0.64	0.21		1.11	0.24
Uniform Delay, d1	39.5	30.0	25.1	28.7	35.9	25.3		19.4	14.1		28.5	14.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.71	0.87
Incremental Delay, d2	126.4	0.6	0.1	1.2	9.8	0.1		4.0	0.7		62.2	0.4
Delay (s)	165.9	30.6	25.2	29.8	45.7	25.4		23.4	14.8		82.4	13.0
Level of Service	F	C	C	C	D	C		C	B		F	B
Approach Delay (s)		62.2			41.7			21.5			68.8	
Approach LOS		E			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	50.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



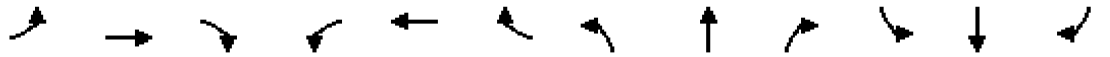
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	548	72	38	691	33	0	508	111	0	496	217
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00			1.00	0.89		1.00	0.96
Flpb, ped/bikes	0.99	1.00		0.98	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1644	3220		1619	3247			1430	1309		1550	1414
Flt Permitted	0.22	1.00		0.29	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	383	3220		487	3247			1430	1309		1550	1414
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	108	577	76	40	727	35	0	535	117	0	522	228
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	108	653	0	40	762	0	0	535	117	0	522	228
Confl. Peds. (#/hr)	16		50	50		16			121			38
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	1%	0%	1%	1%	0%
Parking (#/hr)								14			0	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	25.9	25.9		25.9	25.9			41.1	41.1		41.1	41.1
Effective Green, g (s)	25.9	25.9		25.9	25.9			41.1	41.1		41.1	41.1
Actuated g/C Ratio	0.35	0.35		0.35	0.35			0.55	0.55		0.55	0.55
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	132	1111		168	1121			783	717		849	774
v/s Ratio Prot		0.20			0.23			c0.37			0.34	
v/s Ratio Perm	c0.28			0.08					0.09			0.16
v/c Ratio	0.82	0.59		0.24	0.68			0.68	0.16		0.61	0.29
Uniform Delay, d1	22.4	20.2		17.5	21.0			12.2	8.4		11.6	9.1
Progression Factor	1.00	1.00		1.00	1.00			0.90	0.79		1.00	1.00
Incremental Delay, d2	31.0	0.8		0.7	1.7			3.7	0.4		3.3	1.0
Delay (s)	53.4	21.0		18.2	22.7			14.7	7.0		14.9	10.1
Level of Service	D	C		B	C			B	A		B	B
Approach Delay (s)		25.6			22.4			13.3			13.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.1%	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												
Volume (vph)	53	28	25	15	55	23	0	652	7	0	649	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.97			0.97			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1528			1572			1462			1407	
Flt Permitted		0.81			0.95			1.00			1.00	
Satd. Flow (perm)		1274			1503			1462			1407	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	56	29	26	16	58	24	0	686	7	0	683	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	98	0	0	693	0	0	704	0
Confl. Peds. (#/hr)	8		16	16		8			11			8
Heavy Vehicles (%)	0%	7%	0%	7%	0%	0%	0%	1%	0%	2%	2%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		14	14
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		18.0			18.0			49.0			49.0	
Effective Green, g (s)		18.0			18.0			49.0			49.0	
Actuated g/C Ratio		0.24			0.24			0.65			0.65	
Clearance Time (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		305			360			955			919	
v/s Ratio Prot								0.47			c0.50	
v/s Ratio Perm		c0.09			0.07							
v/c Ratio		0.36			0.27			0.73			0.77	
Uniform Delay, d1		23.7			23.2			8.6			9.0	
Progression Factor		1.00			1.00			1.06			1.02	
Incremental Delay, d2		3.3			1.9			3.1			5.6	
Delay (s)		27.1			25.0			12.2			14.8	
Level of Service		C			C			B			B	
Approach Delay (s)		27.1			25.0			12.2			14.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.9%	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												
Volume (vph)	156	584	92	82	676	104	0	531	50	0	498	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00			1.00	0.95		1.00	0.91
Flpb, ped/bikes	1.00	1.00		0.96	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1564	3008		1533	3042			1430	1411		1535	1191
Flt Permitted	0.18	1.00		0.26	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	304	3008		420	3042			1430	1411		1535	1191
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	164	615	97	86	712	109	0	559	53	0	524	75
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	164	712	0	86	821	0	0	559	53	0	524	75
Confl. Peds. (#/hr)	5		69	69		5			23			56
Heavy Vehicles (%)	2%	2%	1%	0%	3%	0%	10%	1%	0%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								14			0	0
Turn Type	pm+pt	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	33.0	32.0		23.0	23.0			35.0	35.0		35.0	35.0
Effective Green, g (s)	33.0	32.0		23.0	23.0			35.0	35.0		35.0	35.0
Actuated g/C Ratio	0.44	0.43		0.31	0.31			0.47	0.47		0.47	0.47
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	234	1283		128	932			667	658		716	555
v/s Ratio Prot	c0.06	0.24			c0.27			c0.39			0.34	
v/s Ratio Perm	0.25			0.20					0.04			0.06
v/c Ratio	0.70	0.55		0.67	0.88			0.84	0.08		0.73	0.14
Uniform Delay, d1	25.4	16.2		22.7	24.7			17.5	11.1		16.2	11.4
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		0.67	0.86
Incremental Delay, d2	9.1	1.7		24.7	11.7			12.0	0.2		4.6	0.3
Delay (s)	34.5	17.9		47.4	36.4			29.5	11.3		15.3	10.1
Level of Service	C	B		D	D			C	B		B	B
Approach Delay (s)		21.0			37.5			27.9			14.7	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	53	55	0	464	742	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11
Total Lost time (s)	3.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.97			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1458			1535	1489	
Flt Permitted	0.98			1.00	1.00	
Satd. Flow (perm)	1458			1535	1489	
Peak-hour factor, PHF	0.95	0.95	0.97	0.95	0.95	0.95
Adj. Flow (vph)	56	58	0	488	781	89
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	114	0	0	488	870	0
Confl. Peds. (#/hr)	18	3				
Heavy Vehicles (%)	2%	9%	21%	2%	4%	1%
Parking (#/hr)				0	0	
Turn Type	NA			NA	NA	
Protected Phases	4			2 10	6	
Permitted Phases						
Actuated Green, G (s)	16.0			88.0	80.0	
Effective Green, g (s)	16.0			88.0	80.0	
Actuated g/C Ratio	0.15			0.80	0.73	
Clearance Time (s)	3.0				3.0	
Lane Grp Cap (vph)	212			1228	1082	
v/s Ratio Prot	c0.08			c0.32	c0.58	
v/s Ratio Perm						
v/c Ratio	0.54			0.40	0.80	
Uniform Delay, d1	43.6			3.2	9.9	
Progression Factor	1.00			0.43	1.00	
Incremental Delay, d2	9.4			0.8	6.4	
Delay (s)	53.0			2.2	16.2	
Level of Service	D			A	B	
Approach Delay (s)	53.0			2.2	16.2	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	36	61	464	79	0	758
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	10	10	11	11	11	11
Total Lost time (s)	3.0		3.0			3.0
Lane Util. Factor	1.00		1.00			1.00
Frpb, ped/bikes	0.87		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	0.92		0.98			1.00
Flt Protected	0.98		1.00			1.00
Satd. Flow (prot)	1226		1507			1439
Flt Permitted	0.98		1.00			1.00
Satd. Flow (perm)	1226		1507			1439
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.99	0.95
Adj. Flow (vph)	38	64	488	83	0	798
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	102	0	571	0	0	798
Confl. Peds. (#/hr)	3	18				
Heavy Vehicles (%)	6%	7%	2%	1%	0%	4%
Parking (#/hr)			0			8
Turn Type	NA		NA			NA
Protected Phases	8		2			6 14
Permitted Phases						
Actuated Green, G (s)	16.0		80.0			88.0
Effective Green, g (s)	16.0		80.0			88.0
Actuated g/C Ratio	0.15		0.73			0.80
Clearance Time (s)	3.0		3.0			
Lane Grp Cap (vph)	178		1096			1151
v/s Ratio Prot	c0.08		0.38			c0.55
v/s Ratio Perm						
v/c Ratio	0.57		0.52			0.69
Uniform Delay, d1	43.8		6.6			4.9
Progression Factor	1.00		0.68			0.17
Incremental Delay, d2	12.7		1.2			2.1
Delay (s)	56.5		5.7			2.9
Level of Service	E		A			A
Approach Delay (s)	56.5		5.7			2.9
Approach LOS	E		A			A

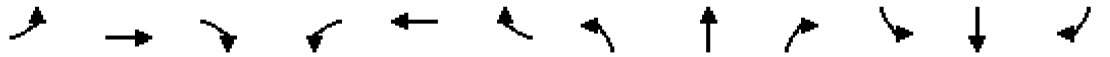
Intersection Summary			
HCM 2000 Control Delay	7.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	55.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	274	31	32	307	89	0	491	25	0	586	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	4.0
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.99			0.98			0.99			1.00	0.62
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.97			0.99			1.00	0.85
Flt Protected		0.99			1.00			1.00			1.00	1.00
Satd. Flow (prot)		1721			1686			1221			1689	819
Flt Permitted		0.92			0.96			1.00			1.00	1.00
Satd. Flow (perm)		1584			1617			1221			1689	819
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.93	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	36	288	33	34	323	94	0	517	26	0	617	32
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	357	0	0	451	0	0	543	0	0	617	32
Confl. Peds. (#/hr)	27		52	52		27			45			88
Confl. Bikes (#/hr)			2						2			
Heavy Vehicles (%)	3%	1%	0%	0%	1%	2%	0%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								36	36			0
Turn Type	Perm	NA		Perm	NA			NA			NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8								6
Actuated Green, G (s)		40.0			40.0			62.0			62.0	62.0
Effective Green, g (s)		40.0			40.0			62.0			62.0	62.0
Actuated g/C Ratio		0.36			0.36			0.56			0.56	0.56
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		576			588			688			951	461
v/s Ratio Prot								c0.44			0.37	
v/s Ratio Perm		0.23			c0.28							0.04
v/c Ratio		0.62			0.77			0.79			0.65	0.07
Uniform Delay, d1		28.8			30.9			18.9			16.5	10.9
Progression Factor		1.00			1.00			0.34			0.62	0.55
Incremental Delay, d2		5.0			9.3			8.7			2.5	0.2
Delay (s)		33.7			40.1			15.1			12.6	6.2
Level of Service		C			D			B			B	A
Approach Delay (s)		33.7			40.1			15.1			12.3	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.1%	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												
Volume (vph)	0	0	0	20	251	21	0	583	0	0	662	99
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor				1.00	0.95	1.00		0.95			0.95	
Frpb, ped/bikes				1.00	1.00	0.98		1.00			0.99	
Flpb, ped/bikes				0.99	1.00	1.00		1.00			1.00	
Frt				1.00	1.00	0.85		1.00			0.98	
Flt Protected				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)				1585	3160	1401		3079			2759	
Flt Permitted				0.95	1.00	1.00		1.00			1.00	
Satd. Flow (perm)				1585	3160	1401		3079			2759	
Peak-hour factor, PHF	0.91	0.97	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	0	0	0	21	264	22	0	614	0	0	697	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	21	264	22	0	614	0	0	801	0
Confl. Peds. (#/hr)			5	5		5			27			44
Confl. Bikes (#/hr)			2						1			1
Heavy Vehicles (%)	9%	0%	0%	0%	1%	0%	3%	2%	0%	0%	3%	0%
Parking (#/hr)								0			26	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)				31.0	31.0	31.0		71.0			71.0	
Effective Green, g (s)				31.0	31.0	31.0		71.0			71.0	
Actuated g/C Ratio				0.28	0.28	0.28		0.65			0.65	
Clearance Time (s)				4.0	4.0	4.0		4.0			4.0	
Lane Grp Cap (vph)				446	890	394		1987			1780	
v/s Ratio Prot					c0.08			0.20			c0.29	
v/s Ratio Perm				0.01		0.02						
v/c Ratio				0.05	0.30	0.06		0.31			0.45	
Uniform Delay, d1				28.7	31.0	28.8		8.6			9.7	
Progression Factor				1.00	1.00	1.00		0.24			0.93	
Incremental Delay, d2				0.2	0.9	0.3		0.4			0.7	
Delay (s)				28.9	31.8	29.1		2.5			9.8	
Level of Service				C	C	C		A			A	
Approach Delay (s)		0.0			31.4			2.5			9.8	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.0%	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												
Volume (vph)	46	338	71	0	0	0	0	570	36	0	562	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		0.95						0.95			0.95	
Frpb, ped/bikes		1.00						1.00			1.00	
Flpb, ped/bikes		1.00						1.00			1.00	
Frt		0.98						0.99			1.00	
Flt Protected		1.00						1.00			1.00	
Satd. Flow (prot)		2953						2741			2614	
Flt Permitted		1.00						1.00			1.00	
Satd. Flow (perm)		2953						2741			2614	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.96	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	48	356	75	0	0	0	0	600	38	0	592	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	479	0	0	0	0	0	638	0	0	592	0
Confl. Peds. (#/hr)			2						19			30
Confl. Bikes (#/hr)									3			3
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	2%	0%	3%	3%	0%
Parking (#/hr)								0			18	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		43.0						59.0			59.0	
Effective Green, g (s)		43.0						59.0			59.0	
Actuated g/C Ratio		0.39						0.54			0.54	
Clearance Time (s)		4.0						4.0			4.0	
Lane Grp Cap (vph)		1154						1470			1402	
v/s Ratio Prot								c0.23			0.23	
v/s Ratio Perm		0.16										
v/c Ratio		0.42						0.43			0.42	
Uniform Delay, d1		24.4						15.4			15.3	
Progression Factor		1.00						0.58			0.85	
Incremental Delay, d2		1.1						0.8			0.9	
Delay (s)		25.5						9.8			13.8	
Level of Service		C						A			B	
Approach Delay (s)		25.5			0.0			9.8			13.8	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.0%	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												
Volume (vph)	44	614	84	14	828	208	0	485	4	0	591	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		2.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.98		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.97	1.00			1.00			1.00	
Frt	1.00	0.98		1.00	0.97			1.00			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1587	2957		1548	2963			3105			3005	
Flt Permitted	0.17	1.00		0.30	1.00			1.00			1.00	
Satd. Flow (perm)	278	2957		493	2963			3105			3005	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	46	646	88	15	872	219	0	511	4	0	622	46
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	46	734	0	15	1091	0	0	515	0	0	668	0
Confl. Peds. (#/hr)	31		74	74		31			23			27
Confl. Bikes (#/hr)						3			1			2
Heavy Vehicles (%)	0%	5%	0%	0%	4%	0%	17%	1%	0%	5%	3%	2%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		custom	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			3 8								
Actuated Green, G (s)	52.0	52.0		63.0	61.0			41.0			41.0	
Effective Green, g (s)	52.0	52.0		63.0	61.0			41.0			41.0	
Actuated g/C Ratio	0.47	0.47		0.57	0.55			0.37			0.37	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	131	1397		282	1643			1157			1120	
v/s Ratio Prot		0.25			c0.37			0.17			c0.22	
v/s Ratio Perm	0.17			0.03								
v/c Ratio	0.35	0.53		0.05	0.66			0.45			0.60	
Uniform Delay, d1	18.3	20.3		10.4	17.3			25.9			27.8	
Progression Factor	1.00	1.00		1.00	1.00			0.64			0.67	
Incremental Delay, d2	7.3	1.4		0.4	2.1			1.0			2.2	
Delay (s)	25.6	21.8		10.7	19.4			17.6			20.7	
Level of Service	C	C		B	B			B			C	
Approach Delay (s)		22.0			19.3			17.6			20.7	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

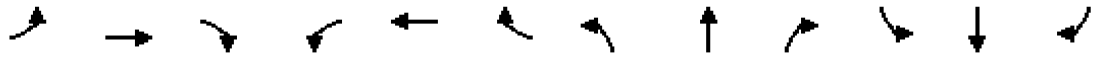
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	742	0	204	640	0	0	367	168	0	396	76
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			0.99			0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	1.00		1.00	1.00			0.95			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1708	3353		1636	3241			3076			2936	
Flt Permitted	0.36	1.00		0.29	1.00			1.00			1.00	
Satd. Flow (perm)	638	3353		495	3241			3076			2936	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	181	781	0	215	674	0	0	386	177	0	417	80
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	181	781	0	215	674	0	0	563	0	0	497	0
Confl. Peds. (#/hr)	3		7	7		3			13			22
Confl. Bikes (#/hr)			1			3			3			5
Heavy Vehicles (%)	0%	2%	0%	1%	2%	0%	0%	2%	0%	0%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	3	0
Parking (#/hr)									0		0	
Turn Type	Perm	NA		pm+pt	NA			NA			NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	57.0	57.0		71.0	70.0			32.0			32.0	
Effective Green, g (s)	57.0	57.0		71.0	70.0			32.0			32.0	
Actuated g/C Ratio	0.52	0.52		0.65	0.64			0.29			0.29	
Clearance Time (s)	4.0	4.0		3.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	330	1737		423	2062			894			854	
v/s Ratio Prot		0.23		c0.05	0.21			c0.18			0.17	
v/s Ratio Perm	c0.28			0.28								
v/c Ratio	0.55	0.45		0.51	0.33			0.63			0.58	
Uniform Delay, d1	17.8	16.6		18.0	9.2			33.9			33.3	
Progression Factor	1.00	1.00		1.00	1.00			0.73			0.33	
Incremental Delay, d2	6.4	0.8		4.3	0.4			3.2			2.4	
Delay (s)	24.3	17.5		22.3	9.6			28.1			13.5	
Level of Service	C	B		C	A			C			B	
Approach Delay (s)		18.8			12.7			28.1			13.5	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	64.4%	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												
Volume (vph)	0	50	34	52	52	20	0	540	20	0	454	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.98			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.99			1.00			1.00	
Frt		0.95			0.98			0.99			1.00	
Flt Protected		1.00			0.98			1.00			1.00	
Satd. Flow (prot)		1561			1572			2858			3019	
Flt Permitted		1.00			0.86			1.00			1.00	
Satd. Flow (perm)		1561			1378			2858			3019	
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)	0	53	36	55	55	21	0	568	21	0	478	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	89	0	0	131	0	0	589	0	0	479	0
Confl. Peds. (#/hr)	7		17	17		7			15			18
Confl. Bikes (#/hr)			1						2			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	5%	0%	2%	5%	1%	4%	0%
Parking (#/hr)								24	24		0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		38.0			38.0			64.0			64.0	
Effective Green, g (s)		38.0			38.0			64.0			64.0	
Actuated g/C Ratio		0.35			0.35			0.58			0.58	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		539			476			1662			1756	
v/s Ratio Prot		0.06						c0.21			0.16	
v/s Ratio Perm					c0.10							
v/c Ratio		0.17			0.28			0.35			0.27	
Uniform Delay, d1		25.0			26.0			12.1			11.4	
Progression Factor		1.00			1.00			0.28			0.45	
Incremental Delay, d2		0.7			1.4			0.6			0.3	
Delay (s)		25.6			27.5			4.0			5.5	
Level of Service		C			C			A			A	
Approach Delay (s)		25.6			27.5			4.0			5.5	
Approach LOS		C			C			A			A	

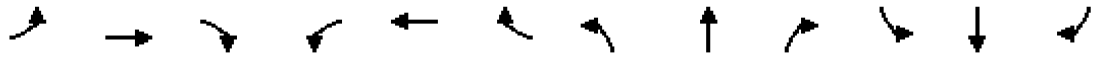
Intersection Summary			
HCM 2000 Control Delay	8.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	68	144	83	0	506	0	0	645	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)					4.0			4.0			4.0	
Lane Util. Factor					0.95			0.95			0.95	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					1.00			1.00			1.00	
Frt					0.96			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					2939			2642			2908	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					2939			2642			2908	
Peak-hour factor, PHF	0.91	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)	0	0	0	72	152	87	0	533	0	0	679	47
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	311	0	0	533	0	0	726	0
Confl. Peds. (#/hr)			8	8		32			17			33
Confl. Bikes (#/hr)						2			1			1
Heavy Vehicles (%)	6%	0%	0%	0%	1%	1%	0%	2%	0%	0%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								54			12	12
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					35.0			67.0			67.0	
Effective Green, g (s)					35.0			67.0			67.0	
Actuated g/C Ratio					0.32			0.61			0.61	
Clearance Time (s)					4.0			4.0			4.0	
Lane Grp Cap (vph)					935			1609			1771	
v/s Ratio Prot								0.20			c0.25	
v/s Ratio Perm					0.11							
v/c Ratio					0.33			0.33			0.41	
Uniform Delay, d1					28.6			10.5			11.2	
Progression Factor					1.00			0.30			0.61	
Incremental Delay, d2					1.0			0.5			0.7	
Delay (s)					29.6			3.7			7.5	
Level of Service					C			A			A	
Approach Delay (s)		0.0			29.6			3.7			7.5	
Approach LOS		A			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.0%	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												
Volume (vph)	62	228	109	0	0	0	0	638	90	0	472	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0					4.0			4.0	
Lane Util. Factor		0.95	1.00					0.95			0.95	
Frpb, ped/bikes		1.00	0.97					0.99			1.00	
Flpb, ped/bikes		1.00	1.00					1.00			1.00	
Frt		1.00	0.85					0.98			1.00	
Flt Protected		0.99	1.00					1.00			1.00	
Satd. Flow (prot)		3301	1472					3167			2889	
Flt Permitted		0.99	1.00					1.00			1.00	
Satd. Flow (perm)		3301	1472					3167			2889	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.88	0.95	0.92	0.95	0.95	0.88	0.95	0.95
Adj. Flow (vph)	65	240	115	0	0	0	0	672	95	0	497	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	305	115	0	0	0	0	767	0	0	497	0
Confl. Peds. (#/hr)	6		13			6			20			9
Heavy Vehicles (%)	0%	3%	1%	2%	0%	0%	2%	2%	1%	4%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0		20	
Turn Type	Perm	NA	Perm					NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4		4									
Actuated Green, G (s)		38.0	38.0					63.0			63.0	
Effective Green, g (s)		38.0	38.0					63.0			63.0	
Actuated g/C Ratio		0.35	0.35					0.57			0.57	
Clearance Time (s)		5.0	5.0					4.0			4.0	
Lane Grp Cap (vph)		1140	508					1813			1654	
v/s Ratio Prot								c0.24			0.17	
v/s Ratio Perm		0.09	0.08									
v/c Ratio		0.27	0.23					0.42			0.30	
Uniform Delay, d1		26.0	25.6					13.3			12.1	
Progression Factor		1.00	1.00					0.40			0.50	
Incremental Delay, d2		0.6	1.0					0.6			0.4	
Delay (s)		26.5	26.6					5.9			6.5	
Level of Service		C	C					A			A	
Approach Delay (s)		26.6			0.0			5.9			6.5	
Approach LOS		C			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.0%	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												
Volume (vph)	0	0	0	292	340	185	337	522	0	0	673	129
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	11	11	11	11	11	11	11	11	11
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
Lane Util. Factor				0.97	1.00	1.00	0.91	0.91			0.95	
Frpb, ped/bikes				1.00	1.00	0.97	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	0.85	1.00	1.00			0.98	
Flt Protected				0.95	1.00	1.00	0.95	0.99			1.00	
Satd. Flow (prot)				3144	1673	1396	1475	2930			2955	
Flt Permitted				0.95	1.00	1.00	0.95	0.87			1.00	
Satd. Flow (perm)				3144	1673	1396	1475	2565			2955	
Peak-hour factor, PHF	0.91	0.99	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	0	0	0	307	358	195	355	549	0	0	708	136
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	307	358	195	291	613	0	0	844	0
Confl. Peds. (#/hr)						8	15		9			15
Confl. Bikes (#/hr)						3			1			9
Heavy Vehicles (%)	7%	0%	0%	2%	4%	3%	2%	2%	0%	0%	3%	1%
Parking (#/hr)								0			0	
Turn Type				Split	NA	Perm	Prot	NA			NA	
Protected Phases				8	8		5	5 6			6 16	
Permitted Phases						8						
Actuated Green, G (s)				21.0	21.0	21.0	38.0	57.0			39.0	
Effective Green, g (s)				21.0	21.0	21.0	38.0	57.0			37.0	
Actuated g/C Ratio				0.19	0.19	0.19	0.35	0.52			0.34	
Clearance Time (s)				4.0	4.0	4.0	4.0					
Lane Grp Cap (vph)				600	319	266	509	1455			993	
v/s Ratio Prot				0.10	c0.21		c0.20	0.15			c0.29	
v/s Ratio Perm						0.14		0.07				
v/c Ratio				0.51	1.12	0.73	0.57	0.42			0.85	
Uniform Delay, d1				39.9	44.5	41.9	29.4	16.3			33.9	
Progression Factor				1.00	1.00	1.00	0.50	0.30			0.73	
Incremental Delay, d2				3.1	87.6	16.4	2.1	0.4			9.0	
Delay (s)				43.0	132.1	58.2	16.8	5.3			33.8	
Level of Service				D	F	E	B	A			C	
Approach Delay (s)		0.0			83.5			9.0			33.8	
Approach LOS		A			F			A			C	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.0%	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												
Volume (vph)	192	268	258	0	0	0	0	732	322	256	609	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0	4.0					4.0		4.0	4.0	
Lane Util. Factor		0.95	1.00					0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00					0.99		1.00	1.00	
Flpb, ped/bikes		1.00	1.00					1.00		1.00	1.00	
Frt		1.00	0.85					0.95		1.00	1.00	
Flt Protected		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (prot)		3290	1471					2911		1637	3031	
Flt Permitted		0.98	1.00					1.00		0.95	1.00	
Satd. Flow (perm)		3290	1471					2911		1637	3031	
Peak-hour factor, PHF	0.95	0.95	0.95	0.91	0.96	0.95	0.96	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	202	282	272	0	0	0	0	771	339	269	641	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	484	272	0	0	0	0	1110	0	269	641	0
Confl. Peds. (#/hr)									3	3		2
Heavy Vehicles (%)	3%	1%	4%	1%	0%	0%	0%	2%	1%	1%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Split	NA	Perm					NA		Prot	NA	
Protected Phases	4	4						2 12		1	1 2	
Permitted Phases			4									
Actuated Green, G (s)		26.0	26.0					44.0		28.0	56.0	
Effective Green, g (s)		26.0	26.0					42.0		28.0	56.0	
Actuated g/C Ratio		0.24	0.24					0.38		0.25	0.51	
Clearance Time (s)		4.0	4.0							4.0		
Lane Grp Cap (vph)		777	347					1111		416	1543	
v/s Ratio Prot		0.15						c0.38		c0.16	0.21	
v/s Ratio Perm			c0.18									
v/c Ratio		0.62	0.78					1.00		0.65	0.42	
Uniform Delay, d1		37.6	39.4					34.0		36.6	16.8	
Progression Factor		1.00	1.00					0.62		0.74	0.71	
Incremental Delay, d2		3.7	16.1					22.7		5.2	0.6	
Delay (s)		41.4	55.5					43.6		32.4	12.5	
Level of Service		D	E					D		C	B	
Approach Delay (s)		46.4			0.0			43.6			18.4	
Approach LOS		D			A			D			B	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.0%	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												
Volume (vph)	280	308	161	60	164	54	0	1018	84	0	689	102
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Util. Factor	0.91	0.91		1.00	0.95			0.95			0.95	
Frpb, ped/bikes	1.00	0.97		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.99	1.00		0.95	1.00			1.00			1.00	
Frt	1.00	0.95		1.00	0.96			0.99			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1488	2897		1521	2877			3041			2960	
Flt Permitted	0.50	0.92		0.44	1.00			1.00			1.00	
Satd. Flow (perm)	778	2663		705	2877			3041			2960	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	295	324	169	63	173	57	0	1072	88	0	725	107
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	248	540	0	63	230	0	0	1160	0	0	832	0
Confl. Peds. (#/hr)	29		84	84		29			36			18
Confl. Bikes (#/hr)			1			2			3			1
Heavy Vehicles (%)	0%	0%	0%	0%	7%	0%	0%	1%	2%	3%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	pm+pt	NA		Perm	NA			NA			NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	43.0	43.0		21.0	21.0			57.0			57.0	
Effective Green, g (s)	43.0	43.0		21.0	21.0			57.0			57.0	
Actuated g/C Ratio	0.39	0.39		0.19	0.19			0.52			0.52	
Clearance Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	
Lane Grp Cap (vph)	426	1081		134	549			1575			1533	
v/s Ratio Prot	c0.10	0.09			0.08			c0.38			0.28	
v/s Ratio Perm	c0.13	0.11		0.09								
v/c Ratio	0.58	0.50		0.47	0.42			0.74			0.54	
Uniform Delay, d1	24.6	25.4		39.6	39.1			20.6			17.8	
Progression Factor	1.00	1.00		1.00	1.00			0.69			1.25	
Incremental Delay, d2	5.7	1.6		11.4	2.3			2.8			1.2	
Delay (s)	30.3	27.0		50.9	41.5			17.0			23.5	
Level of Service	C	C		D	D			B			C	
Approach Delay (s)		28.0			43.5			17.0			23.5	
Approach LOS		C			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	75.9%	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												
Volume (vph)	360	0	91	0	0	4	0	825	4	0	723	19
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	12	12	12	11	11	11	11	11	11
Total Lost time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Util. Factor	0.97		1.00		1.00			0.95			0.95	
Frpb, ped/bikes	1.00		0.98		0.98			1.00			1.00	
Flpb, ped/bikes	0.99		1.00		1.00			1.00			1.00	
Frt	1.00		0.85		0.86			1.00			1.00	
Flt Protected	0.95		1.00		1.00			1.00			1.00	
Satd. Flow (prot)	3077		1400		1533			3046			3064	
Flt Permitted	0.76		1.00		1.00			1.00			1.00	
Satd. Flow (perm)	2446		1400		1533			3046			3064	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.91	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	379	0	96	0	0	4	0	868	4	0	761	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	379	0	96	0	4	0	0	872	0	0	781	0
Confl. Peds. (#/hr)	3		6	6		3			18			11
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Parking (#/hr)								0			0	
Turn Type	custom		custom	Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases	4		4	8								
Actuated Green, G (s)	37.0		37.0		37.0			64.0			64.0	
Effective Green, g (s)	37.0		37.0		37.0			64.0			64.0	
Actuated g/C Ratio	0.34		0.34		0.34			0.58			0.58	
Clearance Time (s)	5.0		5.0		5.0			4.0			4.0	
Lane Grp Cap (vph)	822		470		515			1772			1782	
v/s Ratio Prot					0.00			c0.29			0.25	
v/s Ratio Perm	c0.15		0.07									
v/c Ratio	0.46		0.20		0.01			0.49			0.44	
Uniform Delay, d1	28.7		26.0		24.3			13.5			12.9	
Progression Factor	1.00		1.00		1.00			0.39			0.44	
Incremental Delay, d2	1.9		1.0		0.0			0.7			0.7	
Delay (s)	30.5		27.0		24.3			6.0			6.3	
Level of Service	C		C		C			A			A	
Approach Delay (s)		29.8			24.3			6.0			6.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.8%	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												
Volume (vph)	220	60	99	14	16	43	0	771	11	0	785	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frpb, ped/bikes		0.94			0.94			1.00			0.99	
Flpb, ped/bikes		0.95			0.98			1.00			1.00	
Frt		0.96			0.92			1.00			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1409			1394			3044			2998	
Flt Permitted		0.78			0.92			1.00			1.00	
Satd. Flow (perm)		1136			1291			3044			2998	
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)	232	63	104	15	17	45	0	812	12	0	826	27
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	399	0	0	77	0	0	824	0	0	853	0
Confl. Peds. (#/hr)	61		136	136		61			46			41
Confl. Bikes (#/hr)			10			6			8			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	1%	2%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		58.0			58.0			44.0			44.0	
Effective Green, g (s)		58.0			58.0			44.0			44.0	
Actuated g/C Ratio		0.53			0.53			0.40			0.40	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		598			680			1217			1199	
v/s Ratio Prot								0.27			c0.28	
v/s Ratio Perm		c0.35			0.06							
v/c Ratio		0.67			0.11			0.68			0.71	
Uniform Delay, d1		19.0			13.1			27.2			27.7	
Progression Factor		1.00			1.00			0.42			0.66	
Incremental Delay, d2		5.8			0.3			2.8			3.3	
Delay (s)		24.8			13.4			14.1			21.6	
Level of Service		C			B			B			C	
Approach Delay (s)		24.8			13.4			14.1			21.6	
Approach LOS		C			B			B			C	

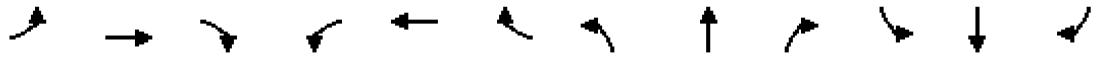
Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	104	296	79	52	163	58	0	597	144	0	585	157
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.95			0.95	
Frpb, ped/bikes	1.00	1.00	0.90	1.00	1.00	0.75		0.96			0.92	
Flpb, ped/bikes	0.83	1.00	1.00	0.96	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.97			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1318	1631	1280	1525	1615	1044		2834			2720	
Flt Permitted	0.60	1.00	1.00	0.44	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	835	1631	1280	702	1615	1044		2834			2720	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	109	312	83	55	172	61	0	628	152	0	616	165
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	109	312	83	55	172	61	0	780	0	0	781	0
Confl. Peds. (#/hr)	152		57	57		152			40			77
Confl. Bikes (#/hr)			8			3			3			2
Heavy Vehicles (%)	0%	3%	0%	0%	4%	3%	0%	3%	0%	6%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	43.0	43.0	43.0	43.0	43.0	43.0		58.0			58.0	
Effective Green, g (s)	43.0	43.0	43.0	43.0	43.0	43.0		58.0			58.0	
Actuated g/C Ratio	0.39	0.39	0.39	0.39	0.39	0.39		0.53			0.53	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		5.0			5.0	
Lane Grp Cap (vph)	326	637	500	274	631	408		1494			1434	
v/s Ratio Prot		c0.19			0.11			0.28			c0.29	
v/s Ratio Perm	0.13		0.06	0.08		0.06						
v/c Ratio	0.33	0.49	0.17	0.20	0.27	0.15		0.52			0.54	
Uniform Delay, d1	23.5	25.2	21.8	22.1	22.8	21.7		17.0			17.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.22			0.90	
Incremental Delay, d2	2.7	2.7	0.7	1.6	1.1	0.8		1.0			1.1	
Delay (s)	26.2	27.9	22.5	23.8	23.9	22.4		21.7			16.6	
Level of Service	C	C	C	C	C	C		C			B	
Approach Delay (s)		26.7			23.6			21.7			16.6	
Approach LOS		C			C			C			B	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	57.9%	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												
Volume (vph)	136	1492	288	169	797	105	0	463	106	0	642	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.91		1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.90		1.00	0.90		1.00	0.92
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1576	4354		1596	3099	1254		1550	1180		1673	1196
Flt Permitted	0.19	1.00		0.09	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	311	4354		159	3099	1254		1550	1180		1673	1196
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	143	1571	303	178	839	111	0	487	112	0	676	120
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	143	1874	0	178	839	111	0	487	112	0	676	120
Confl. Peds. (#/hr)	76		47	47		76			78			62
Confl. Bikes (#/hr)			4			3			1			6
Heavy Vehicles (%)	1%	1%	0%	0%	3%	2%	5%	1%	0%	3%	4%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			0
Turn Type	pm+pt	NA		pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	56.0	46.0		49.3	42.3	42.3		44.0	44.0		44.0	44.0
Effective Green, g (s)	56.0	46.0		49.3	42.3	42.3		44.0	44.0		44.0	44.0
Actuated g/C Ratio	0.51	0.42		0.45	0.38	0.38		0.40	0.40		0.40	0.40
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	5.0	3.0		5.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	281	1820		162	1191	482		620	472		669	478
v/s Ratio Prot	c0.05	0.43		c0.07	0.27			0.31			c0.40	
v/s Ratio Perm	0.21			c0.42		0.09			0.09			0.10
v/c Ratio	0.51	1.03		1.10	0.70	0.23		0.79	0.24		1.01	0.25
Uniform Delay, d1	17.0	32.0		25.1	28.6	22.9		28.9	21.9		33.0	22.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.72	0.82		0.76	0.61
Incremental Delay, d2	3.0	29.1		99.6	3.5	1.1		6.2	0.7		35.8	1.1
Delay (s)	20.0	61.1		124.7	32.1	24.0		27.1	18.6		60.7	14.6
Level of Service	C	E		F	C	C		C	B		E	B
Approach Delay (s)		58.2			45.9			25.5			53.8	
Approach LOS		E			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	50.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	95.0%	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												
Volume (vph)	191	0	314	5	0	2	0	550	0	0	597	9
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.92			0.96			1.00			1.00	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1556			1654			1520			1517	
Flt Permitted		0.87			0.84			1.00			1.00	
Satd. Flow (perm)		1384			1443			1520			1517	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.91	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	201	0	331	5	0	2	0	579	0	0	628	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	532	0	0	7	0	0	579	0	0	637	0
Confl. Peds. (#/hr)	7		7	7		7			28			5
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	3%	0%	6%	0%	4%	3%	0%	0%	3%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		46.1			46.1			55.9			55.9	
Effective Green, g (s)		46.1			46.1			55.9			55.9	
Actuated g/C Ratio		0.42			0.42			0.51			0.51	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		580			604			772			770	
v/s Ratio Prot								0.38			c0.42	
v/s Ratio Perm		c0.38			0.00							
v/c Ratio		0.92			0.01			0.75			0.83	
Uniform Delay, d1		30.1			18.7			21.5			23.0	
Progression Factor		1.00			1.00			0.47			0.79	
Incremental Delay, d2		20.3			0.0			6.0			4.5	
Delay (s)		50.4			18.7			16.0			22.7	
Level of Service		D			B			B			C	
Approach Delay (s)		50.4			18.7			16.0			22.7	
Approach LOS		D			B			B			C	

Intersection Summary			
HCM 2000 Control Delay	28.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.4%	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												
Volume (vph)	0	0	198	16	0	6	0	475	0	0	581	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.91			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			0.97			1.00			1.00	
Frt		0.86			0.96			1.00			0.99	
Flt Protected		1.00			0.96			1.00			1.00	
Satd. Flow (prot)		1399			1624			1372			1520	
Flt Permitted		1.00			0.80			1.00			1.00	
Satd. Flow (perm)		1399			1351			1372			1520	
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.91	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	0	0	208	17	0	6	0	500	0	0	612	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	208	0	0	23	0	0	500	0	0	643	0
Confl. Peds. (#/hr)			24	24					12			14
Confl. Bikes (#/hr)			6						5			5
Heavy Vehicles (%)	7%	0%	1%	0%	0%	0%	2%	4%	0%	4%	2%	0%
Parking (#/hr)								16			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		29.0			29.0			73.0			73.0	
Effective Green, g (s)		29.0			29.0			73.0			73.0	
Actuated g/C Ratio		0.26			0.26			0.66			0.66	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		368			356			910			1008	
v/s Ratio Prot		c0.15						0.36			c0.42	
v/s Ratio Perm					0.02							
v/c Ratio		0.57			0.06			0.55			0.64	
Uniform Delay, d1		35.0			30.3			9.8			10.8	
Progression Factor		1.00			1.00			0.80			0.66	
Incremental Delay, d2		6.2			0.3			1.9			2.0	
Delay (s)		41.2			30.7			9.8			9.0	
Level of Service		D			C			A			A	
Approach Delay (s)		41.2			30.7			9.8			9.0	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	14.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.5%	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												
Volume (vph)	102	428	160	138	390	78	0	681	125	0	522	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.83	1.00	1.00	0.59		1.00	0.76		1.00	0.67
Flpb, ped/bikes	0.86	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1380	1663	1185	1511	1647	811		1351	1097		1326	940
Flt Permitted	0.29	1.00	1.00	0.25	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	427	1663	1185	395	1647	811		1351	1097		1326	940
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	107	451	168	145	411	82	0	717	132	0	549	66
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	107	451	168	145	411	82	0	717	132	0	549	66
Confl. Peds. (#/hr)	156		59	59		156			58			79
Confl. Bikes (#/hr)			6			11						4
Heavy Vehicles (%)	0%	1%	0%	1%	2%	4%	1%	3%	2%	6%	5%	6%
Parking (#/hr)								20			20	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	39.0	39.0	39.0	39.0	39.0	39.0		60.0	60.0		60.0	60.0
Effective Green, g (s)	39.0	39.0	39.0	39.0	39.0	39.0		60.0	60.0		60.0	60.0
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35	0.35		0.55	0.55		0.55	0.55
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	151	589	420	140	583	287		736	598		723	512
v/s Ratio Prot		0.27			0.25			c0.53			0.41	
v/s Ratio Perm	0.25		0.14	c0.37		0.10			0.12			0.07
v/c Ratio	0.71	0.77	0.40	1.04	0.70	0.29		0.97	0.22		0.76	0.13
Uniform Delay, d1	30.6	31.5	26.7	35.5	30.5	25.5		24.2	12.9		19.4	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.69	0.67		0.97	0.94
Incremental Delay, d2	24.4	9.2	2.8	85.9	7.0	2.5		19.8	0.5		6.7	0.5
Delay (s)	55.0	40.6	29.5	121.4	37.6	28.0		36.4	9.1		25.5	11.9
Level of Service	E	D	C	F	D	C		D	A		C	B
Approach Delay (s)		40.2			55.4			32.2			24.1	
Approach LOS		D			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

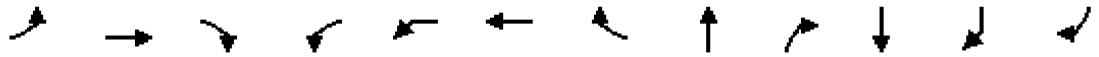
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	45	15	51	75	61	0	798	26	0	670	15
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.95			0.99			0.99	
Flpb, ped/bikes		0.97			0.97			1.00			1.00	
Frt		0.98			0.96			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1638			1568			1382			1269	
Flt Permitted		0.71			0.88			1.00			1.00	
Satd. Flow (perm)		1185			1403			1382			1269	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	48	47	16	54	79	64	0	840	27	0	705	16
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	197	0	0	867	0	0	721	0
Confl. Peds. (#/hr)	44		50	50		44			66			46
Confl. Bikes (#/hr)			2			4			6			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	6%	3%	0%	0%	6%	7%
Parking (#/hr)								14			24	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		20.0			20.0			82.0			82.0	
Effective Green, g (s)		20.0			20.0			82.0			82.0	
Actuated g/C Ratio		0.18			0.18			0.75			0.75	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		215			255			1030			945	
v/s Ratio Prot								c0.63			0.57	
v/s Ratio Perm		0.09			c0.14							
v/c Ratio		0.52			0.77			0.84			0.76	
Uniform Delay, d1		40.6			42.8			9.6			8.3	
Progression Factor		1.00			1.00			0.22			0.74	
Incremental Delay, d2		8.6			20.0			4.7			4.0	
Delay (s)		49.2			62.9			6.9			10.1	
Level of Service		D			E			A			B	
Approach Delay (s)		49.2			62.9			6.9			10.1	
Approach LOS		D			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.6%	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												
Volume (vph)	39	78	27	148	99	30	0	725	51	0	646	21
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.99			0.99			1.00	
Flpb, ped/bikes		0.99			0.99			1.00			1.00	
Frt		0.97			0.99			0.99			1.00	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1700			1670			1331			1371	
Flt Permitted		0.86			0.70			1.00			1.00	
Satd. Flow (perm)		1477			1197			1331			1371	
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)	41	82	28	156	104	32	0	763	54	0	680	22
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	151	0	0	292	0	0	817	0	0	702	0
Confl. Peds. (#/hr)	33		17	17		33			18			20
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	0%	3%	2%	2%	6%	0%
Parking (#/hr)								20			12	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		28.6			28.6			73.4			73.4	
Effective Green, g (s)		28.6			28.6			73.4			73.4	
Actuated g/C Ratio		0.26			0.26			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		384			311			888			914	
v/s Ratio Prot								c0.61			0.51	
v/s Ratio Perm		0.10			c0.24							
v/c Ratio		0.39			0.94			0.92			0.77	
Uniform Delay, d1		33.5			39.8			15.8			12.5	
Progression Factor		1.00			1.00			0.74			0.98	
Incremental Delay, d2		1.4			35.9			12.7			4.0	
Delay (s)		34.9			75.7			24.3			16.2	
Level of Service		C			E			C			B	
Approach Delay (s)		34.9			75.7			24.3			16.2	
Approach LOS		C			E			C			B	

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBT	NBR	SBT	SBR	SBR2
Lane Configurations												
Volume (vph)	81	301	87	84	172	451	45	620	97	555	104	31
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	12	11	10	11	12	11	11	11	11	11
Total Lost time (s)	4.0	4.0			3.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95			1.00	0.95		0.95		1.00	1.00	
Frpb, ped/bikes	1.00	0.99			1.00	0.98		1.00		1.00	0.86	
Flpb, ped/bikes	0.89	1.00			1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.97			1.00	0.99		0.98		1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00		1.00		1.00	1.00	
Satd. Flow (prot)	1413	3045			1451	3066		2383		1442	1069	
Flt Permitted	0.46	1.00			0.26	1.00		1.00		1.00	1.00	
Satd. Flow (perm)	682	3045			398	3066		2383		1442	1069	
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)	85	317	92	88	181	475	47	653	102	584	109	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	85	409	0	0	269	522	0	755	0	584	142	0
Confl. Peds. (#/hr)	99						99		6		53	
Confl. Bikes (#/hr)			2				6		6		1	
Heavy Vehicles (%)	0%	5%	2%	10%	10%	4%	3%	3%	8%	5%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	3	0
Parking (#/hr)								74	74	6	6	
Turn Type	Perm	NA		pm+pt	pm+pt	NA		NA		NA	Perm	
Protected Phases		4		3	3	8		2		6		
Permitted Phases	4			8	8						6	
Actuated Green, G (s)	19.9	19.9			37.4	37.4		48.5		48.5	48.5	
Effective Green, g (s)	19.9	19.9			37.4	37.4		48.5		48.5	48.5	
Actuated g/C Ratio	0.18	0.18			0.34	0.34		0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0			3.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	123	550			274	1042		1050		635	471	
v/s Ratio Prot		0.13			c0.13	0.17		0.32		c0.41		
v/s Ratio Perm	0.12				c0.20						0.13	
v/c Ratio	0.69	0.74			0.98	0.50		0.72		0.92	0.30	
Uniform Delay, d1	42.2	42.6			31.8	28.9		25.2		28.9	19.8	
Progression Factor	1.00	1.00			1.00	1.00		0.97		0.90	0.98	
Incremental Delay, d2	15.4	5.4			49.1	0.4		3.7		15.0	1.1	
Delay (s)	57.6	48.0			80.8	29.3		28.2		41.0	20.5	
Level of Service	E	D			F	C		C		D	C	
Approach Delay (s)		49.7				46.8		28.2		37.0		
Approach LOS		D				D		C		D		

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	NEL2	NEL	NER	NER2
Lane Configurations				
Volume (vph)	4	97	159	47
Ideal Flow (vphpl)	1800	1800	1800	1800
Lane Width	11	11	12	12
Total Lost time (s)		4.0	4.0	
Lane Util. Factor		1.00	0.88	
Frpb, ped/bikes		1.00	1.00	
Flpb, ped/bikes		1.00	1.00	
Frt		1.00	0.85	
Flt Protected		0.95	1.00	
Satd. Flow (prot)		1637	2507	
Flt Permitted		0.99	1.00	
Satd. Flow (perm)		1703	2507	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95
Adj. Flow (vph)	4	102	167	49
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	0	106	216	0
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Heavy Vehicles (%)	0%	1%	9%	2%
Bus Blockages (#/hr)	0	0	0	0
Parking (#/hr)				
Turn Type	Perm	NA	Prot	
Protected Phases		9	9	
Permitted Phases	9			
Actuated Green, G (s)		12.1	12.1	
Effective Green, g (s)		12.1	12.1	
Actuated g/C Ratio		0.11	0.11	
Clearance Time (s)		4.0	4.0	
Vehicle Extension (s)		3.0	3.0	
Lane Grp Cap (vph)		187	275	
v/s Ratio Prot			c0.09	
v/s Ratio Perm		0.06		
v/c Ratio		0.57	0.79	
Uniform Delay, d1		46.5	47.7	
Progression Factor		1.00	1.00	
Incremental Delay, d2		3.9	13.7	
Delay (s)		50.4	61.4	
Level of Service		D	E	
Approach Delay (s)		57.7		
Approach LOS		E		

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	0	4	0	0	1	0	799	0	0	778	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.94			0.97			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.91			0.86			1.00			1.00	
Flt Protected		0.98			1.00			1.00			1.00	
Satd. Flow (prot)		1507			1507			1657			1722	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		1532			1507			1657			1722	
Peak-hour factor, PHF	0.95	0.94	0.95	0.95	0.94	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	2	0	4	0	0	1	0	841	0	0	819	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	6	0	0	1	0	0	841	0	0	820	0
Confl. Peds. (#/hr)	1		2	2		1			1			12
Confl. Bikes (#/hr)									2			4
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	14%	5%	0%	25%	1%	0%
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		1.6			1.6			98.4			98.4	
Effective Green, g (s)		1.6			1.6			98.4			98.4	
Actuated g/C Ratio		0.01			0.01			0.89			0.89	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		22			21			1482			1540	
v/s Ratio Prot					0.00			c0.51			0.48	
v/s Ratio Perm		c0.00										
v/c Ratio		0.27			0.05			0.57			0.53	
Uniform Delay, d1		53.6			53.4			1.2			1.2	
Progression Factor		1.00			1.00			1.00			0.40	
Incremental Delay, d2		13.6			2.0			1.6			0.6	
Delay (s)		67.2			55.4			2.8			1.1	
Level of Service		E			E			A			A	
Approach Delay (s)		67.2			55.4			2.8			1.1	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM 2000 Control Delay	2.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	56.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	785	778	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)				5.0	5.0	
Lane Util. Factor				1.00	1.00	
Frpb, ped/bikes				1.00	1.00	
Flpb, ped/bikes				1.00	1.00	
Frt				1.00	1.00	
Flt Protected				1.00	1.00	
Satd. Flow (prot)				1689	1689	
Flt Permitted				1.00	1.00	
Satd. Flow (perm)				1689	1689	
Peak-hour factor, PHF	0.95	0.95	0.96	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	826	819	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	826	819	0
Confl. Peds. (#/hr)		10				16
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	0%	0%	50%	3%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	3
Turn Type		Perm		NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4				6
Actuated Green, G (s)				100.0	100.0	
Effective Green, g (s)				100.0	100.0	
Actuated g/C Ratio				1.00	1.00	
Clearance Time (s)				5.0	5.0	
Vehicle Extension (s)				3.0	3.0	
Lane Grp Cap (vph)				1689	1689	
v/s Ratio Prot				c0.49	0.48	
v/s Ratio Perm						
v/c Ratio				0.49	0.48	
Uniform Delay, d1				0.0	0.0	
Progression Factor				1.00	1.00	
Incremental Delay, d2				0.8	1.0	
Delay (s)				0.8	1.0	
Level of Service				A	A	
Approach Delay (s)	0.0			0.8	1.0	
Approach LOS	A			A	A	

Intersection Summary			
HCM 2000 Control Delay	0.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

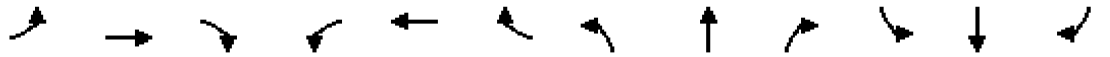
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	8	18	0	692	706	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	12	12	11	11	11	11
Total Lost time (s)	4.0	4.0		5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	0.96		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	0.95	1.00		1.00	1.00	
Satd. Flow (prot)	1710	1255		1171	1187	
Flt Permitted	0.95	1.00		1.00	1.00	
Satd. Flow (perm)	1710	1255		1171	1187	
Peak-hour factor, PHF	0.95	0.95	0.92	0.95	0.95	0.95
Adj. Flow (vph)	8	19	0	728	743	5
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	8	19	0	728	748	0
Confl. Peds. (#/hr)		2				3
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	17%	29%	4%	4%	0%
Parking (#/hr)				40	38	
Turn Type	NA	Perm		NA	NA	
Protected Phases	4			2	6	
Permitted Phases		4				
Actuated Green, G (s)	4.9	4.9		86.1	86.1	
Effective Green, g (s)	4.9	4.9		86.1	86.1	
Actuated g/C Ratio	0.05	0.05		0.86	0.86	
Clearance Time (s)	4.0	4.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	61		1008	1022	
v/s Ratio Prot	0.00			0.62	c0.63	
v/s Ratio Perm		c0.02				
v/c Ratio	0.10	0.31		0.72	0.73	
Uniform Delay, d1	45.4	45.9		2.6	2.6	
Progression Factor	1.00	1.00		1.04	1.00	
Incremental Delay, d2	0.5	2.9		3.9	4.1	
Delay (s)	45.9	48.8		6.5	6.7	
Level of Service	D	D		A	A	
Approach Delay (s)	48.0			6.5	6.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM 2000 Control Delay	7.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

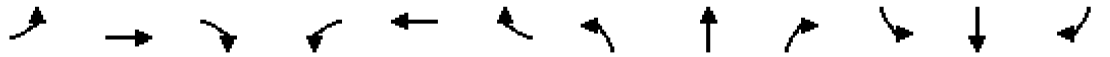
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	292	0	158	22	0	13	0	313	11	0	638	160
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0		4.0		4.0			12.0			12.0	12.0
Lane Util. Factor	1.00		1.00		1.00			1.00			1.00	1.00
Frpb, ped/bikes	1.00		1.00		0.98			1.00			1.00	0.97
Flpb, ped/bikes	1.00		1.00		1.00			1.00			1.00	1.00
Frt	1.00		0.85		0.95			1.00			1.00	0.85
Flt Protected	0.95		1.00		0.97			1.00			1.00	1.00
Satd. Flow (prot)	1605		1232		1122			1639			1689	1371
Flt Permitted	0.95		1.00		0.97			1.00			1.00	1.00
Satd. Flow (perm)	1605		1232		1122			1639			1689	1371
Peak-hour factor, PHF	0.95	0.96	0.95	0.95	0.96	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	307	0	166	23	0	14	0	329	12	0	672	168
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	307	0	166	0	37	0	0	341	0	0	672	168
Confl. Peds. (#/hr)	2					2			70			3
Confl. Bikes (#/hr)									2			2
Heavy Vehicles (%)	3%	0%	20%	45%	0%	46%	0%	4%	36%	82%	3%	5%
Turn Type	Split		Perm	Split	NA			NA		pm+pt	NA	Perm
Protected Phases	4	4		8	8			2		1	6	
Permitted Phases			4							6		6
Actuated Green, G (s)	24.0		24.0		4.8			51.2			51.2	51.2
Effective Green, g (s)	24.0		24.0		4.8			51.2			51.2	51.2
Actuated g/C Ratio	0.24		0.24		0.05			0.51			0.51	0.51
Clearance Time (s)	4.0		4.0		4.0			12.0			12.0	12.0
Vehicle Extension (s)	3.0		3.0		3.0			3.0			3.0	3.0
Lane Grp Cap (vph)	385		295		53			839			864	701
v/s Ratio Prot	c0.19				c0.03			0.21			c0.40	
v/s Ratio Perm			0.13									0.12
v/c Ratio	0.80		0.56		0.70			0.41			0.78	0.24
Uniform Delay, d1	35.7		33.4		46.9			15.0			19.8	13.6
Progression Factor	1.00		1.00		1.00			0.76			0.89	0.85
Incremental Delay, d2	15.7		7.6		33.1			1.1			5.4	0.6
Delay (s)	51.4		41.0		80.0			12.6			23.0	12.2
Level of Service	D		D		E			B			C	B
Approach Delay (s)		47.7			80.0			12.6			20.9	
Approach LOS		D			E			B			C	

Intersection Summary			
HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	22.0
Intersection Capacity Utilization	72.5%	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												
Volume (vph)	100	1049	115	178	991	47	0	301	99	0	454	99
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	10	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			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	0.99		1.00	0.99			0.97			0.98	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1651	4525		1635	4404			1406			1567	
Flt Permitted	0.18	1.00		0.11	1.00			1.00			1.00	
Satd. Flow (perm)	319	4525		183	4404			1406			1567	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	105	1104	121	187	1043	49	0	317	104	0	478	104
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	105	1225	0	187	1092	0	0	421	0	0	582	0
Confl. Peds. (#/hr)	24		69	69		24			65			25
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	0%	2%	4%	1%	3%	7%	100%	7%	3%	7%	9%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0			18
Turn Type	pm+pt	NA		pm+pt	NA			NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	41.1	34.7		47.6	38.2			42.4			42.4	
Effective Green, g (s)	41.1	34.7		47.6	38.2			42.4			42.4	
Actuated g/C Ratio	0.41	0.35		0.48	0.38			0.42			0.42	
Clearance Time (s)	3.0	5.0		3.0	5.0			5.0			5.0	
Vehicle Extension (s)	5.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	216	1570		230	1682			596			664	
v/s Ratio Prot	0.03	0.27		c0.08	0.25			0.30			c0.37	
v/s Ratio Perm	0.17			c0.31								
v/c Ratio	0.49	0.78		0.81	0.65			0.71			0.88	
Uniform Delay, d1	19.1	29.2		19.8	25.4			23.7			26.4	
Progression Factor	1.00	1.00		1.00	1.00			0.89			0.66	
Incremental Delay, d2	3.6	2.6		19.3	2.0			6.7			11.1	
Delay (s)	22.6	31.8		39.1	27.4			27.8			28.6	
Level of Service	C	C		D	C			C			C	
Approach Delay (s)		31.1			29.1			27.8			28.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.0%	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												
Volume (vph)	0	0	0	116	63	8	166	343	27	0	476	81
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	14	12	12	11	12	11	11	11	11	11	11
Total Lost time (s)					4.0	4.0	2.0	4.0			4.0	
Lane Util. Factor					1.00	1.00	1.00	1.00			1.00	
Frpb, ped/bikes					1.00	0.96	1.00	0.99			0.99	
Flpb, ped/bikes					0.98	1.00	1.00	1.00			1.00	
Frt					1.00	0.85	1.00	0.99			0.98	
Flt Protected					0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)					1630	1472	1496	1608			1571	
Flt Permitted					0.97	1.00	0.35	1.00			1.00	
Satd. Flow (perm)					1630	1472	559	1608			1571	
Peak-hour factor, PHF	0.95	0.91	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	122	66	8	175	361	28	0	501	85
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	188	8	175	389	0	0	586	0
Confl. Peds. (#/hr)	6		10	10		6	22		14			22
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	10%	7%	0%	3%	8%	5%
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					
Actuated Green, G (s)					16.3	16.3	77.7	75.7			63.7	
Effective Green, g (s)					16.3	16.3	77.7	75.7			63.7	
Actuated g/C Ratio					0.16	0.16	0.78	0.76			0.64	
Clearance Time (s)					4.0	4.0	2.0	4.0			4.0	
Vehicle Extension (s)					3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)					265	239	528	1217			1000	
v/s Ratio Prot							c0.03	0.24			c0.37	
v/s Ratio Perm					0.12	0.01	0.22					
v/c Ratio					0.71	0.03	0.33	0.32			0.59	
Uniform Delay, d1					39.6	35.2	8.6	3.9			10.5	
Progression Factor					1.00	1.00	0.43	0.43			0.54	
Incremental Delay, d2					8.4	0.1	0.3	0.6			1.3	
Delay (s)					48.0	35.3	4.0	2.3			7.0	
Level of Service					D	D	A	A			A	
Approach Delay (s)		0.0			47.5			2.8			7.0	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	68.6%	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												
Volume (vph)	16	41	44	0	0	39	0	462	10	0	488	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	
Frpb, ped/bikes	1.00	0.99			0.97			1.00			1.00	
Flpb, ped/bikes	0.99	1.00			1.00			1.00			1.00	
Frt	1.00	0.92			0.86			1.00			1.00	
Flt Protected	0.95	1.00			1.00			1.00			1.00	
Satd. Flow (prot)	1694	1606			1396			1064			1431	
Flt Permitted	0.73	1.00			1.00			1.00			1.00	
Satd. Flow (perm)	1302	1606			1396			1064			1431	
Peak-hour factor, PHF	0.95	0.95	0.95	0.92	0.92	0.95	0.92	0.95	0.95	0.93	0.95	0.95
Adj. Flow (vph)	17	43	46	0	0	41	0	486	11	0	514	1
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	17	89	0	0	41	0	0	497	0	0	515	0
Confl. Peds. (#/hr)	4		2			4			5			7
Confl. Bikes (#/hr)						1						2
Heavy Vehicles (%)	0%	0%	4%	2%	2%	8%	2%	6%	0%	14%	7%	0%
Parking (#/hr)								50			4	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)	20.0	20.0			20.0			72.0			72.0	
Effective Green, g (s)	20.0	20.0			20.0			72.0			72.0	
Actuated g/C Ratio	0.20	0.20			0.20			0.72			0.72	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)	260	321			279			766			1030	
v/s Ratio Prot		c0.06			0.03			c0.47			0.36	
v/s Ratio Perm	0.01											
v/c Ratio	0.07	0.28			0.15			0.65			0.50	
Uniform Delay, d1	32.4	33.9			33.0			7.4			6.1	
Progression Factor	1.00	1.00			1.00			0.85			0.63	
Incremental Delay, d2	0.5	2.1			1.1			3.3			1.4	
Delay (s)	32.9	36.0			34.1			9.6			5.3	
Level of Service	C	D			C			A			A	
Approach Delay (s)		35.5			34.1			9.6			5.3	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	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												
Volume (vph)	60	320	93	74	310	108	0	538	36	0	443	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.94		1.00	0.92
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1532	1570	1238	1515	1538	1220		1192	959		1193	984
Flt Permitted	0.33	1.00	1.00	0.35	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	526	1570	1238	560	1538	1220		1192	959		1193	984
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	63	337	98	78	326	114	0	566	38	0	466	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	63	337	98	78	337	103	0	566	38	0	466	38
Confl. Peds. (#/hr)	11		12	12		11			12			17
Confl. Bikes (#/hr)						2			1			
Heavy Vehicles (%)	3%	7%	10%	4%	3%	6%	14%	8%	6%	17%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)								32	32		36	36
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	30.0	30.0	30.0	30.0	30.0	30.0		61.0	61.0		61.0	61.0
Effective Green, g (s)	30.0	30.0	30.0	30.0	30.0	30.0		61.0	61.0		61.0	61.0
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30		0.61	0.61		0.61	0.61
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	157	471	371	168	461	366		727	584		727	600
v/s Ratio Prot		0.21			c0.22			c0.47			0.39	
v/s Ratio Perm	0.12		0.08	0.14		0.08			0.04			0.04
v/c Ratio	0.40	0.72	0.26	0.46	0.73	0.28		0.78	0.07		0.64	0.06
Uniform Delay, d1	27.9	31.2	26.6	28.5	31.4	26.8		14.5	7.9		12.5	7.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.67	0.88		0.71	0.69
Incremental Delay, d2	7.5	9.0	1.7	9.0	9.8	1.9		7.3	0.2		3.9	0.2
Delay (s)	35.3	40.2	28.3	37.4	41.2	28.7		17.0	7.2		12.7	5.6
Level of Service	D	D	C	D	D	C		B	A		B	A
Approach Delay (s)		37.2			38.1			16.4			12.2	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
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												
Volume (vph)	24	4	15	12	16	19	0	554	16	0	476	9
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.95			0.95			1.00			1.00	
Flt Protected		0.97			0.99			1.00			1.00	
Satd. Flow (prot)		1650			1583			1461			1488	
Flt Permitted		0.87			0.92			1.00			1.00	
Satd. Flow (perm)		1478			1469			1461			1488	
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)	25	4	16	13	17	20	0	583	17	0	501	9
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	45	0	0	50	0	0	600	0	0	510	0
Confl. Peds. (#/hr)	4					4						1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	5%	7%	0%	19%	5%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		8.9			8.9			82.1			82.1	
Effective Green, g (s)		8.9			8.9			82.1			82.1	
Actuated g/C Ratio		0.09			0.09			0.82			0.82	
Clearance Time (s)		4.0			4.0			5.0			5.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		131			130			1199			1221	
v/s Ratio Prot								c0.41			0.34	
v/s Ratio Perm		0.03			c0.03							
v/c Ratio		0.34			0.38			0.50			0.42	
Uniform Delay, d1		42.8			43.0			2.7			2.4	
Progression Factor		1.00			1.00			0.78			0.76	
Incremental Delay, d2		3.3			3.9			1.4			0.9	
Delay (s)		46.1			46.9			3.6			2.7	
Level of Service		D			D			A			A	
Approach Delay (s)		46.1			46.9			3.6			2.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.6%	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												
Volume (vph)	15	217	146	166	501	123	0	432	45	0	494	31
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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		1.00	0.98		1.00	0.98
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1653	3033	1394	1585	3119	1321		1398	1143		1374	1291
Flt Permitted	0.43	1.00	1.00	0.48	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	747	3033	1394	805	3119	1321		1398	1143		1374	1291
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	16	228	154	175	527	129	0	455	47	0	520	33
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	16	228	154	175	527	129	0	455	47	0	520	33
Confl. Peds. (#/hr)			3	3					4			4
Heavy Vehicles (%)	0%	9%	3%	4%	6%	12%	1%	12%	13%	16%	14%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	25.7	23.3	23.3	36.8	31.4	31.4		57.2	57.2		57.2	57.2
Effective Green, g (s)	25.7	23.3	23.3	36.8	31.4	31.4		57.2	57.2		57.2	57.2
Actuated g/C Ratio	0.26	0.23	0.23	0.37	0.31	0.31		0.57	0.57		0.57	0.57
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	213	706	324	378	979	414		799	653		785	738
v/s Ratio Prot	0.00	0.08		c0.05	c0.17			0.33			c0.38	
v/s Ratio Perm	0.02		0.11	0.12		0.10			0.04			0.03
v/c Ratio	0.08	0.32	0.48	0.46	0.54	0.31		0.57	0.07		0.66	0.04
Uniform Delay, d1	27.9	31.8	33.1	22.6	28.3	26.1		13.6	9.6		14.7	9.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.77	0.67
Incremental Delay, d2	0.2	1.2	4.9	0.9	2.1	2.0		2.9	0.2		2.0	0.0
Delay (s)	28.0	33.0	38.0	23.5	30.4	28.0		16.5	9.8		13.3	6.4
Level of Service	C	C	D	C	C	C		B	A		B	A
Approach Delay (s)		34.7			28.6			15.9			12.9	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	37	20	0	378	606	53
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width	11	12	11	11	11	11
Total Lost time (s)	5.0			3.0	3.0	
Lane Util. Factor	1.00			1.00	1.00	
Frpb, ped/bikes	0.99			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.95			1.00	0.99	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1565			1187	1644	
Flt Permitted	0.97			1.00	1.00	
Satd. Flow (perm)	1565			1187	1644	
Peak-hour factor, PHF	0.95	0.95	0.96	0.95	0.95	0.95
Adj. Flow (vph)	39	21	0	398	638	56
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	60	0	0	398	694	0
Confl. Peds. (#/hr)	4	1				6
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	0%	5%	0%	7%	4%	9%
Parking (#/hr)				34		
Turn Type	NA			NA	NA	
Protected Phases	4			2 9	6	
Permitted Phases						
Actuated Green, G (s)	11.2			68.8	61.8	
Effective Green, g (s)	11.2			68.8	61.8	
Actuated g/C Ratio	0.12			0.76	0.69	
Clearance Time (s)	5.0				3.0	
Vehicle Extension (s)	8.0				3.0	
Lane Grp Cap (vph)	194			907	1128	
v/s Ratio Prot	c0.04			c0.34	c0.42	
v/s Ratio Perm						
v/c Ratio	0.31			0.44	0.62	
Uniform Delay, d1	35.9			3.8	7.6	
Progression Factor	1.00			0.30	1.00	
Incremental Delay, d2	3.9			0.3	2.5	
Delay (s)	39.7			1.5	10.2	
Level of Service	D			A	B	
Approach Delay (s)	39.7			1.5	10.2	
Approach LOS	D			A	B	

Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	48.1%	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												
Volume (vph)	0	0	22	0	0	5	0	361	1	0	380	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	8	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			3.0			3.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.86			0.86			1.00			1.00	
Flt Protected		1.00			1.00			1.00			1.00	
Satd. Flow (prot)		1557			1038			1491			1491	
Flt Permitted		1.00			1.00			1.00			1.00	
Satd. Flow (perm)		1557			1038			1491			1491	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.92	0.95	0.92	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	0	0	23	0	0	5	0	380	1	0	400	2
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	23	0	0	5	0	0	381	0	0	402	0
Confl. Peds. (#/hr)												4
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	2%	2%	0%	0%	2%	50%	2%	5%	0%	67%	5%	0%
Parking (#/hr)								0			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6 13	
Permitted Phases	4			8								
Actuated Green, G (s)		11.2			11.2			61.8			68.8	
Effective Green, g (s)		11.2			11.2			61.8			68.8	
Actuated g/C Ratio		0.12			0.12			0.69			0.76	
Clearance Time (s)		5.0			5.0			3.0				
Vehicle Extension (s)		8.0			8.0			3.0				
Lane Grp Cap (vph)		193			129			1023			1139	
v/s Ratio Prot		c0.01			0.00			c0.26			c0.27	
v/s Ratio Perm												
v/c Ratio		0.12			0.04			0.37			0.35	
Uniform Delay, d1		35.0			34.7			5.9			3.4	
Progression Factor		1.00			1.00			0.52			0.09	
Incremental Delay, d2		1.2			0.5			1.0			0.2	
Delay (s)		36.2			35.2			4.1			0.5	
Level of Service		D			D			A			A	
Approach Delay (s)		36.2			35.2			4.1			0.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	3.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	32.1%	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												
Volume (vph)	78	190	86	48	320	182	0	259	16	0	392	64
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.98		1.00	1.00	0.97		1.00	0.97		1.00	0.95
Flpb, ped/bikes	1.00	1.00		0.98	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	0.95		1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1590	1515		1510	1600	1252		1259	1014		1221	979
Flt Permitted	0.41	1.00		0.47	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	690	1515		746	1600	1252		1259	1014		1221	979
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	82	200	91	51	337	192	0	273	17	0	413	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	82	291	0	51	337	192	0	273	17	0	413	67
Confl. Peds. (#/hr)	4		15	15		4			4			12
Confl. Bikes (#/hr)			2						2			2
Heavy Vehicles (%)	0%	5%	2%	4%	5%	11%	3%	5%	6%	22%	4%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								28	28		34	34
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)	32.0	32.0		32.0	32.0	32.0		49.0	49.0		49.0	49.0
Effective Green, g (s)	32.0	32.0		32.0	32.0	32.0		49.0	49.0		49.0	49.0
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36		0.54	0.54		0.54	0.54
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	245	538		265	568	445		685	552		664	533
v/s Ratio Prot		0.19			c0.21			0.22			c0.34	
v/s Ratio Perm	0.12			0.07		0.15			0.02			0.07
v/c Ratio	0.33	0.54		0.19	0.59	0.43		0.40	0.03		0.62	0.13
Uniform Delay, d1	21.2	23.1		20.1	23.7	22.1		11.9	9.5		14.1	10.0
Progression Factor	1.00	1.00		1.00	1.00	1.00		0.86	1.01		0.62	0.43
Incremental Delay, d2	3.7	3.9		1.6	4.5	3.0		1.7	0.1		4.2	0.5
Delay (s)	24.9	27.0		21.7	28.2	25.1		12.0	9.7		13.0	4.8
Level of Service	C	C		C	C	C		B	A		B	A
Approach Delay (s)		26.5			26.6			11.9			11.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.8%	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												
Volume (vph)	12	7	22	28	34	20	0	279	28	0	411	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.98			0.99			1.00			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.93			0.97			0.99			0.99	
Flt Protected		0.99			0.98			1.00			1.00	
Satd. Flow (prot)		1601			1621			1337			1131	
Flt Permitted		0.92			0.87			1.00			1.00	
Satd. Flow (perm)		1491			1435			1337			1131	
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)	13	7	23	29	36	21	0	294	29	0	433	42
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	43	0	0	86	0	0	323	0	0	475	0
Confl. Peds. (#/hr)	7		3	3		7			11			23
Confl. Bikes (#/hr)			1						1			
Heavy Vehicles (%)	0%	0%	0%	7%	0%	6%	14%	5%	4%	10%	4%	5%
Parking (#/hr)								16			42	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		9.8			9.8			71.2			71.2	
Effective Green, g (s)		9.8			9.8			71.2			71.2	
Actuated g/C Ratio		0.11			0.11			0.79			0.79	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Vehicle Extension (s)		5.0			5.0			3.0			3.0	
Lane Grp Cap (vph)		162			156			1057			894	
v/s Ratio Prot								0.24			c0.42	
v/s Ratio Perm		0.03			c0.06							
v/c Ratio		0.27			0.55			0.31			0.53	
Uniform Delay, d1		36.8			38.0			2.6			3.4	
Progression Factor		1.00			1.00			0.80			0.87	
Incremental Delay, d2		1.8			7.0			0.7			1.9	
Delay (s)		38.6			45.0			2.8			4.8	
Level of Service		D			D			A			A	
Approach Delay (s)		38.6			45.0			2.8			4.8	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.0%	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												
Volume (vph)	28	30	9	18	8	36	0	265	19	0	413	34
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			1.00			1.00	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.92			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1711			1586			1148			1167	
Flt Permitted		0.88			0.92			1.00			1.00	
Satd. Flow (perm)		1539			1483			1148			1167	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	29	32	9	19	8	38	0	279	20	0	435	36
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	70	0	0	65	0	0	299	0	0	471	0
Confl. Peds. (#/hr)	11		9	9		11			12			6
Confl. Bikes (#/hr)						1			2			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	5%	0%	0%	3%	3%
Parking (#/hr)								40			40	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		23.0			23.0			58.0			58.0	
Effective Green, g (s)		23.0			23.0			58.0			58.0	
Actuated g/C Ratio		0.26			0.26			0.64			0.64	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		393			378			739			752	
v/s Ratio Prot								0.26			c0.40	
v/s Ratio Perm		c0.05			0.04							
v/c Ratio		0.18			0.17			0.40			0.63	
Uniform Delay, d1		26.1			26.1			7.7			9.5	
Progression Factor		1.00			1.00			0.62			0.45	
Incremental Delay, d2		1.0			1.0			1.6			3.5	
Delay (s)		27.1			27.1			6.3			7.7	
Level of Service		C			C			A			A	
Approach Delay (s)		27.1			27.1			6.3			7.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.8%	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												
Volume (vph)	36	78	49	12	33	51	0	234	45	0	379	50
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.99			0.95			0.97			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.96			0.93			0.98			0.98	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1648			1552			1129			1087	
Flt Permitted		0.92			0.96			1.00			1.00	
Satd. Flow (perm)		1533			1498			1129			1087	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	38	82	52	13	35	54	0	246	47	0	399	53
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	172	0	0	102	0	0	293	0	0	452	0
Confl. Peds. (#/hr)	37		9	9		37			39			14
Confl. Bikes (#/hr)									2			
Heavy Vehicles (%)	0%	0%	3%	0%	0%	2%	0%	5%	0%	2%	3%	4%
Parking (#/hr)								38			48	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		21.0			21.0			61.0			61.0	
Effective Green, g (s)		21.0			21.0			61.0			61.0	
Actuated g/C Ratio		0.23			0.23			0.68			0.68	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		357			349			765			736	
v/s Ratio Prot								0.26			c0.42	
v/s Ratio Perm		c0.11			0.07							
v/c Ratio		0.48			0.29			0.38			0.61	
Uniform Delay, d1		29.8			28.4			6.3			8.0	
Progression Factor		1.00			1.00			0.63			0.25	
Incremental Delay, d2		4.6			2.1			1.3			3.1	
Delay (s)		34.4			30.5			5.3			5.1	
Level of Service		C			C			A			A	
Approach Delay (s)		34.4			30.5			5.3			5.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL2	EBT	EBR	WBL	WBT	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations												
Volume (vph)	72	279	28	138	405	91	6	230	13	51	325	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	10	11	11	11	11	11
Total Lost time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	0.97			1.00	0.79		1.00	0.95
Flpb, ped/bikes	1.00	1.00		0.97	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.99		1.00	0.97			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1478	2856		1540	2778			1041	1157		1506	1191
Flt Permitted	0.40	1.00		0.50	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	627	2856		802	2778			1041	1157		1506	1191
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)	76	294	29	145	426	96	6	242	14	54	342	58
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	76	323	0	145	528	0	0	242	68	0	342	58
Confl. Peds. (#/hr)			53	53		74			75			25
Confl. Bikes (#/hr)						4			2			
Heavy Vehicles (%)	8%	9%	11%	1%	9%	6%	0%	7%	0%	2%	4%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								52			0	0
Turn Type	pm+pt	NA		pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)	34.4	29.6		38.8	31.8			41.4	41.4		41.4	41.4
Effective Green, g (s)	34.4	29.6		38.8	31.8			41.4	41.4		41.4	41.4
Actuated g/C Ratio	0.38	0.33		0.43	0.35			0.46	0.46		0.46	0.46
Clearance Time (s)	3.0	5.0		3.0	5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	285	939		403	981			478	532		692	547
v/s Ratio Prot	0.01	0.11		c0.03	c0.19			c0.23			0.23	
v/s Ratio Perm	0.09			0.13					0.06			0.05
v/c Ratio	0.27	0.34		0.36	0.54			0.51	0.13		0.49	0.11
Uniform Delay, d1	18.2	22.9		16.2	23.2			17.1	13.9		17.0	13.8
Progression Factor	1.00	1.00		1.00	1.00			0.59	0.68		0.64	0.59
Incremental Delay, d2	0.5	1.0		0.6	2.1			3.5	0.5		2.0	0.3
Delay (s)	18.7	23.9		16.7	25.4			13.6	10.0		13.0	8.4
Level of Service	B	C		B	C			B	B		B	A
Approach Delay (s)		22.9			23.5			12.8			12.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SWR2
Lane Configurations	
Volume (vph)	25
Ideal Flow (vphpl)	1800
Lane Width	12
Total Lost time (s)	5.0
Lane Util. Factor	1.00
Frpb, ped/bikes	1.00
Flpb, ped/bikes	1.00
Frt	0.86
Flt Protected	1.00
Satd. Flow (prot)	1557
Flt Permitted	1.00
Satd. Flow (perm)	1557
Peak-hour factor, PHF	0.95
Adj. Flow (vph)	26
RTOR Reduction (vph)	0
Lane Group Flow (vph)	26
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Heavy Vehicles (%)	0%
Bus Blockages (#/hr)	0
Parking (#/hr)	
Turn Type	custom
Protected Phases	
Permitted Phases	8
Actuated Green, G (s)	31.8
Effective Green, g (s)	31.8
Actuated g/C Ratio	0.35
Clearance Time (s)	5.0
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	550
v/s Ratio Prot	
v/s Ratio Perm	0.02
v/c Ratio	0.05
Uniform Delay, d1	19.1
Progression Factor	1.00
Incremental Delay, d2	0.2
Delay (s)	19.3
Level of Service	B
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	22	44	18	0	322	0	0	617	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			0.99	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.97			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1642			1205			1073	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1642			1205			1073	
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.95	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	23	46	19	0	339	0	0	649	62
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	88	0	0	339	0	0	711	0
Confl. Peds. (#/hr)			20	20		21			10			27
Heavy Vehicles (%)	0%	0%	0%	0%	5%	0%	9%	4%	0%	0%	3%	5%
Parking (#/hr)								36			50	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			58.0			58.0	
Effective Green, g (s)					23.0			58.0			58.0	
Actuated g/C Ratio					0.26			0.64			0.64	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					419			776			691	
v/s Ratio Prot								0.28			c0.66	
v/s Ratio Perm					0.05							
v/c Ratio					0.21			0.44			1.03	
Uniform Delay, d1					26.4			7.9			16.0	
Progression Factor					1.00			1.08			0.74	
Incremental Delay, d2					1.1			1.7			41.2	
Delay (s)					27.5			10.2			53.1	
Level of Service					C			B			D	
Approach Delay (s)		0.0			27.5			10.2			53.1	
Approach LOS		A			C			B			D	

Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.9%	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												
Volume (vph)	44	74	24	12	29	24	0	232	34	0	411	23
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			0.98			0.99			0.99	
Flpb, ped/bikes		0.99			1.00			1.00			1.00	
Frt		0.98			0.95			0.98			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1706			1641			1108			1086	
Flt Permitted		0.89			0.94			1.00			1.00	
Satd. Flow (perm)		1549			1562			1108			1086	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	46	78	25	13	31	25	0	244	36	0	433	24
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	149	0	0	69	0	0	280	0	0	457	0
Confl. Peds. (#/hr)	17					17			18			26
Confl. Bikes (#/hr)									1			2
Heavy Vehicles (%)	0%	0%	4%	0%	0%	4%	0%	4%	3%	0%	3%	0%
Parking (#/hr)								44			50	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			57.0			57.0	
Effective Green, g (s)		24.0			24.0			57.0			57.0	
Actuated g/C Ratio		0.27			0.27			0.63			0.63	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		413			416			701			687	
v/s Ratio Prot								0.25			c0.42	
v/s Ratio Perm		c0.10			0.04							
v/c Ratio		0.36			0.17			0.40			0.67	
Uniform Delay, d1		26.8			25.3			8.1			10.5	
Progression Factor		1.00			1.00			0.76			0.10	
Incremental Delay, d2		2.4			0.9			1.6			0.5	
Delay (s)		29.2			26.2			7.8			1.5	
Level of Service		C			C			A			A	
Approach Delay (s)		29.2			26.2			7.8			1.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.9%	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												
Volume (vph)	20	18	16	14	10	37	0	240	20	0	401	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		0.97			0.97			0.99			0.99	
Flpb, ped/bikes		0.99			0.98			1.00			1.00	
Frt		0.96			0.92			0.99			0.99	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1633			1565			1112			1473	
Flt Permitted		0.91			0.94			1.00			1.00	
Satd. Flow (perm)		1505			1496			1112			1473	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	21	19	17	15	11	39	0	253	21	0	422	43
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	57	0	0	65	0	0	274	0	0	465	0
Confl. Peds. (#/hr)	13		40	40		13			25			42
Confl. Bikes (#/hr)			1						2			2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	4%	0%
Parking (#/hr)								44			0	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		25.0			25.0			56.0			56.0	
Effective Green, g (s)		25.0			25.0			56.0			56.0	
Actuated g/C Ratio		0.28			0.28			0.62			0.62	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		418			415			691			916	
v/s Ratio Prot								0.25			c0.32	
v/s Ratio Perm		0.04			c0.04							
v/c Ratio		0.14			0.16			0.40			0.51	
Uniform Delay, d1		24.4			24.5			8.5			9.4	
Progression Factor		1.00			1.00			1.73			0.36	
Incremental Delay, d2		0.7			0.8			1.6			1.6	
Delay (s)		25.1			25.3			16.3			4.9	
Level of Service		C			C			B			A	
Approach Delay (s)		25.1			25.3			16.3			4.9	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

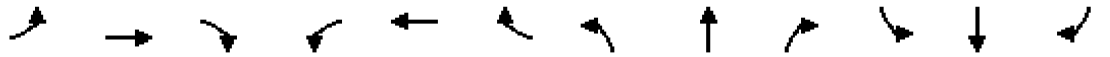
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	219	46	54	298	44	0	244	19	0	347	54
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	1.00	0.90		1.00	0.92		1.00	0.94
Flpb, ped/bikes	0.96	1.00	1.00	0.96	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1473	1631	1314	1476	1541	1259		1143	888		1088	879
Flt Permitted	0.43	1.00	1.00	0.54	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	670	1631	1314	842	1541	1259		1143	888		1088	879
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)	97	231	48	57	314	46	0	257	20	0	365	57
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	97	231	48	57	314	46	0	257	20	0	365	57
Confl. Peds. (#/hr)	29		21	21		29			20			13
Confl. Bikes (#/hr)			2			1						1
Heavy Vehicles (%)	4%	3%	0%	4%	9%	2%	3%	5%	5%	8%	4%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								42	42		50	50
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	31.0	31.0	31.0	31.0	31.0	31.0		50.0	50.0		50.0	50.0
Effective Green, g (s)	31.0	31.0	31.0	31.0	31.0	31.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.56	0.56		0.56	0.56
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	230	561	452	290	530	433		635	493		604	488
v/s Ratio Prot		0.14			c0.20			0.22			c0.34	
v/s Ratio Perm	0.14		0.04	0.07		0.04			0.02			0.06
v/c Ratio	0.42	0.41	0.11	0.20	0.59	0.11		0.40	0.04		0.60	0.12
Uniform Delay, d1	22.6	22.5	20.1	20.7	24.3	20.1		11.5	9.1		13.4	9.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.33	0.41		0.34	0.44
Incremental Delay, d2	5.6	2.2	0.5	1.5	4.8	0.5		1.8	0.1		4.0	0.4
Delay (s)	28.2	24.8	20.5	22.3	29.1	20.6		5.6	3.9		8.6	4.6
Level of Service	C	C	C	C	C	C		A	A		A	A
Approach Delay (s)		25.1			27.2			5.5			8.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM 2000 Control Delay	17.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	52.9%	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												
Volume (vph)	0	0	0	16	10	13	0	282	3	0	421	19
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	11	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.99			1.00			1.00	
Flpb, ped/bikes					0.97			1.00			1.00	
Frt					0.95			1.00			0.99	
Flt Protected					0.98			1.00			1.00	
Satd. Flow (prot)					1607			1202			1106	
Flt Permitted					0.98			1.00			1.00	
Satd. Flow (perm)					1607			1202			1106	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	0	0	0	17	11	14	0	297	3	0	443	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	42	0	0	300	0	0	463	0
Confl. Peds. (#/hr)			41	41		12			30			4
Confl. Bikes (#/hr)			4						3			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	0%	20%	3%	5%
Parking (#/hr)								36			48	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					23.0			58.0			58.0	
Effective Green, g (s)					23.0			58.0			58.0	
Actuated g/C Ratio					0.26			0.64			0.64	
Clearance Time (s)					5.0			4.0			4.0	
Lane Grp Cap (vph)					410			774			712	
v/s Ratio Prot								0.25			c0.42	
v/s Ratio Perm					0.03							
v/c Ratio					0.10			0.39			0.65	
Uniform Delay, d1					25.6			7.6			9.8	
Progression Factor					1.00			0.59			1.03	
Incremental Delay, d2					0.5			1.4			4.0	
Delay (s)					26.1			5.8			14.1	
Level of Service					C			A			B	
Approach Delay (s)		0.0			26.1			5.8			14.1	
Approach LOS		A			C			A			B	

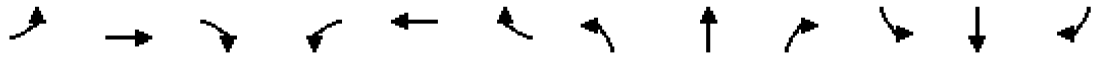
Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	156	864	63	0	253	0	0	340	88
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	9	10	10	11	11	11	11	11	11
Total Lost time (s)				5.0	5.0	5.0		3.0			3.0	3.0
Lane Util. Factor				1.00	0.95	1.00		1.00			1.00	1.00
Frpb, ped/bikes				1.00	1.00	0.92		1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00	1.00		1.00			1.00	1.00
Frt				1.00	1.00	0.85		1.00			1.00	0.85
Flt Protected				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)				1494	3129	1288		1464			1188	1006
Flt Permitted				0.95	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)				1494	3129	1288		1464			1188	1006
Peak-hour factor, PHF	0.91	0.91	0.95	0.95	0.95	0.95	0.91	0.95	0.95	0.91	0.95	0.95
Adj. Flow (vph)	0	0	0	164	909	66	0	266	0	0	358	93
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	164	909	66	0	266	0	0	358	93
Confl. Peds. (#/hr)						41			29			19
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	3%	2%	2%	4%	7%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	3
Parking (#/hr)								0			38	38
Turn Type				Perm	NA	Perm		NA			NA	Perm
Protected Phases					8			2 5			6	
Permitted Phases				8		8						6
Actuated Green, G (s)				31.0	31.0	31.0		36.0			42.0	42.0
Effective Green, g (s)				31.0	31.0	31.0		36.0			42.0	42.0
Actuated g/C Ratio				0.34	0.34	0.34		0.40			0.47	0.47
Clearance Time (s)				5.0	5.0	5.0					3.0	3.0
Lane Grp Cap (vph)				514	1077	443		585			554	469
v/s Ratio Prot					c0.29			c0.18			c0.30	
v/s Ratio Perm				0.11		0.05						0.09
v/c Ratio				0.32	0.84	0.15		0.45			0.65	0.20
Uniform Delay, d1				21.7	27.3	20.4		19.8			18.3	14.1
Progression Factor				1.00	1.00	1.00		0.54			0.65	0.61
Incremental Delay, d2				1.6	8.1	0.7		2.2			4.8	0.8
Delay (s)				23.4	35.4	21.1		12.9			16.7	9.4
Level of Service				C	D	C		B			B	A
Approach Delay (s)		0.0			32.8			12.9			15.2	
Approach LOS		A			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.0%	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												
Volume (vph)	69	709	115	0	0	0	0	256	124	0	468	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0					3.0	3.0		5.0	
Lane Util. Factor	1.00	0.95	1.00					1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00	0.93					1.00	0.98		1.00	
Flpb, ped/bikes	1.00	1.00	1.00					1.00	1.00		1.00	
Frt	1.00	1.00	0.85					1.00	0.85		1.00	
Flt Protected	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (prot)	1494	3099	1283					1259	1102		1506	
Flt Permitted	0.95	1.00	1.00					1.00	1.00		1.00	
Satd. Flow (perm)	1494	3099	1283					1259	1102		1506	
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	73	746	121	0	0	0	0	269	131	0	493	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	73	746	121	0	0	0	0	269	131	0	493	0
Confl. Peds. (#/hr)			31						8			23
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	3%	3%	4%	0%	0%	0%	0%	5%	0%	4%	4%	0%
Parking (#/hr)								28	28		0	
Turn Type	Perm	NA	Perm					NA	Perm		NA	
Protected Phases		4						2			1 6	
Permitted Phases	4		4						2			
Actuated Green, G (s)	31.0	31.0	31.0					32.0	32.0		49.0	
Effective Green, g (s)	31.0	31.0	31.0					32.0	32.0		49.0	
Actuated g/C Ratio	0.34	0.34	0.34					0.36	0.36		0.54	
Clearance Time (s)	5.0	5.0	5.0					3.0	3.0			
Lane Grp Cap (vph)	514	1067	441					447	391		819	
v/s Ratio Prot		c0.24						0.21			c0.33	
v/s Ratio Perm	0.05		0.09						0.12			
v/c Ratio	0.14	0.70	0.27					0.60	0.34		0.60	
Uniform Delay, d1	20.3	25.5	21.4					23.8	21.2		13.9	
Progression Factor	1.00	1.00	1.00					0.72	0.73		0.78	
Incremental Delay, d2	0.6	3.8	1.5					5.5	2.1		2.8	
Delay (s)	20.9	29.3	22.9					22.6	17.5		13.6	
Level of Service	C	C	C					C	B		B	
Approach Delay (s)		27.8			0.0			20.9			13.6	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	105.0%	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												
Volume (vph)	16	18	47	0	0	0	0	328	15	0	447	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.97						1.00			1.00	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.92						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1569						1172			1104	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1569						1172			1104	
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)	17	19	49	0	0	0	0	345	16	0	471	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	85	0	0	0	0	0	361	0	0	471	0
Confl. Peds. (#/hr)	42		16			42			22			29
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Parking (#/hr)								40			48	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						58.0			58.0	
Effective Green, g (s)		23.0						58.0			58.0	
Actuated g/C Ratio		0.26						0.64			0.64	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		400						755			711	
v/s Ratio Prot								0.31			c0.43	
v/s Ratio Perm		0.05										
v/c Ratio		0.21						0.48			0.66	
Uniform Delay, d1		26.4						8.2			9.9	
Progression Factor		1.00						0.98			0.62	
Incremental Delay, d2		1.2						2.0			4.1	
Delay (s)		27.6						10.0			10.3	
Level of Service		C						B			B	
Approach Delay (s)		27.6			0.0			10.0			10.3	
Approach LOS		C			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

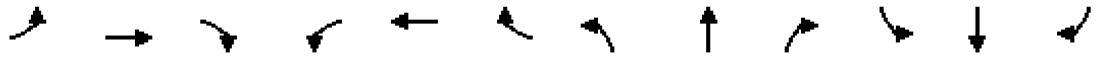
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	242	62	111	404	36	0	292	40	0	516	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.65	1.00	1.00	0.97		1.00	1.00		1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	0.91	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1594	1556	883	1457	1600	1340		1288	1125		1506	1220
Flt Permitted	0.33	1.00	1.00	0.48	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	553	1556	883	743	1600	1340		1288	1125		1506	1220
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	84	255	65	117	425	38	0	307	42	0	543	37
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	84	255	65	117	425	38	0	307	42	0	543	37
Confl. Peds. (#/hr)	5		120	120		5						19
Heavy Vehicles (%)	0%	8%	5%	0%	5%	3%	2%	4%	0%	7%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	35.0	31.0	31.0	38.2	32.6	32.6		41.4	41.4		41.4	41.4
Effective Green, g (s)	35.0	31.0	31.0	38.2	32.6	32.6		41.4	41.4		41.4	41.4
Actuated g/C Ratio	0.39	0.34	0.34	0.42	0.36	0.36		0.46	0.46		0.46	0.46
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	261	535	304	359	579	485		592	517		692	561
v/s Ratio Prot	0.01	0.16		c0.02	c0.27			0.24			c0.36	
v/s Ratio Perm	0.11		0.07	0.12		0.03			0.04			0.03
v/c Ratio	0.32	0.48	0.21	0.33	0.73	0.08		0.52	0.08		0.78	0.07
Uniform Delay, d1	18.5	23.1	20.9	16.5	24.9	18.8		17.2	13.6		20.5	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.89	0.80		0.83	1.13
Incremental Delay, d2	0.7	3.0	1.6	0.5	8.0	0.3		3.0	0.3		7.5	0.2
Delay (s)	19.2	26.2	22.5	17.0	33.0	19.2		18.3	11.2		24.5	15.5
Level of Service	B	C	C	B	C	B		B	B		C	B
Approach Delay (s)		24.1			28.8			17.5			23.9	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.6%	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												
Volume (vph)	31	24	50	0	0	0	0	309	28	0	553	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	16	16	16	16	16	16	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.99						1.00			1.00	
Frt		0.94						0.99			1.00	
Flt Protected		0.99						1.00			1.00	
Satd. Flow (prot)		1808						1235			1064	
Flt Permitted		0.99						1.00			1.00	
Satd. Flow (perm)		1808						1235			1064	
Peak-hour factor, PHF	0.95	0.95	0.95	0.99	0.99	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	33	25	53	0	0	0	0	325	29	0	582	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	111	0	0	0	0	0	354	0	0	582	0
Confl. Peds. (#/hr)	10		16			10			38			28
Confl. Bikes (#/hr)									1			3
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	2%	0%	14%	3%	0%
Parking (#/hr)								32			54	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		23.0						58.0			58.0	
Effective Green, g (s)		23.0						58.0			58.0	
Actuated g/C Ratio		0.26						0.64			0.64	
Clearance Time (s)		5.0						4.0			4.0	
Lane Grp Cap (vph)		462						795			685	
v/s Ratio Prot								0.29			c0.55	
v/s Ratio Perm		0.06										
v/c Ratio		0.24						0.45			0.85	
Uniform Delay, d1		26.6						8.0			12.6	
Progression Factor		1.00						1.00			0.62	
Incremental Delay, d2		1.2						1.8			9.8	
Delay (s)		27.8						9.8			17.6	
Level of Service		C						A			B	
Approach Delay (s)		27.8			0.0			9.8			17.6	
Approach LOS		C			A			A			B	

Intersection Summary			
HCM 2000 Control Delay	16.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	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												
Volume (vph)	55	400	90	112	481	48	0	317	44	0	615	78
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	10	10	10	10	12	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
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	0.87	1.00	0.99			1.00	0.62		1.00	0.64
Flpb, ped/bikes	0.96	1.00	1.00	0.95	1.00			1.00	1.00		1.00	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			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1503	1615	1236	1517	1591			1673	782		1673	924
Flt Permitted	0.25	1.00	1.00	0.38	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	391	1615	1236	601	1591			1673	782		1673	924
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.92	0.95	0.95
Adj. Flow (vph)	58	421	95	118	506	51	0	334	46	0	647	82
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	58	421	95	118	557	0	0	334	46	0	647	82
Confl. Peds. (#/hr)	86		72	72		86			129			122
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	9%	4%	1%	0%	3%	0%	5%	4%	5%	2%	4%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	0
Parking (#/hr)									0			
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	39.0	39.0	39.0	39.0	39.0			44.0	44.0		44.0	44.0
Effective Green, g (s)	39.0	39.0	39.0	39.0	39.0			44.0	44.0		44.0	44.0
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43			0.49	0.49		0.49	0.49
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			2.0	2.0		2.0	2.0
Lane Grp Cap (vph)	169	699	535	260	689			817	382		817	451
v/s Ratio Prot		0.26			c0.35			0.20			c0.39	
v/s Ratio Perm	0.15		0.08	0.20					0.06			0.09
v/c Ratio	0.34	0.60	0.18	0.45	0.81			0.41	0.12		0.79	0.18
Uniform Delay, d1	17.0	19.6	15.7	18.0	22.2			14.7	12.5		19.2	12.9
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.77	0.93		0.60	0.54
Incremental Delay, d2	5.5	3.8	0.7	5.6	9.9			1.5	0.6		6.0	0.7
Delay (s)	22.4	23.4	16.4	23.6	32.1			12.8	12.2		17.4	7.6
Level of Service	C	C	B	C	C			B	B		B	A
Approach Delay (s)		22.1			30.6			12.7			16.3	
Approach LOS		C			C			B			B	

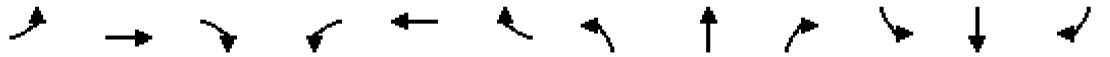
Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	12	22	27	0	352	0	0	494	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	16	16	16	11	11	11	11	11	11
Total Lost time (s)					5.0			4.0			4.0	
Lane Util. Factor					1.00			1.00			1.00	
Frpb, ped/bikes					0.98			1.00			0.99	
Flpb, ped/bikes					0.99			1.00			1.00	
Frt					0.94			1.00			0.99	
Flt Protected					0.99			1.00			1.00	
Satd. Flow (prot)					1847			1436			1201	
Flt Permitted					0.99			1.00			1.00	
Satd. Flow (perm)					1847			1436			1201	
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)	0	0	0	13	23	28	0	371	0	0	520	25
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	64	0	0	371	0	0	545	0
Confl. Peds. (#/hr)			6	6		5			41			42
Confl. Bikes (#/hr)			1									3
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%
Parking (#/hr)								10			36	
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Actuated Green, G (s)					7.8			73.2			73.2	
Effective Green, g (s)					7.8			73.2			73.2	
Actuated g/C Ratio					0.09			0.81			0.81	
Clearance Time (s)					5.0			4.0			4.0	
Vehicle Extension (s)					5.0			3.0			3.0	
Lane Grp Cap (vph)					160			1167			976	
v/s Ratio Prot								0.26			c0.45	
v/s Ratio Perm					0.03							
v/c Ratio					0.40			0.32			0.56	
Uniform Delay, d1					38.9			2.1			2.9	
Progression Factor					1.00			0.20			1.00	
Incremental Delay, d2					3.4			0.6			1.7	
Delay (s)					42.3			1.0			4.6	
Level of Service					D			A			A	
Approach Delay (s)		0.0			42.3			1.0			4.6	
Approach LOS		A			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	5.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

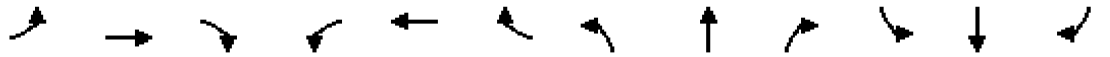


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	340	92	112	387	30	0	345	30	0	462	32
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	10	9	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	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	
Frpb, ped/bikes	1.00	1.00	0.95	1.00	1.00	0.95		0.99			0.99	
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1531	1647	1300	1531	1680	1351		1180			1129	
Flt Permitted	0.35	1.00	1.00	0.35	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	567	1647	1300	557	1680	1351		1180			1129	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.98	0.95	0.95	0.98	0.95	0.95
Adj. Flow (vph)	51	358	97	118	407	32	0	363	32	0	486	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	51	358	97	118	407	32	0	395	0	0	520	0
Confl. Peds. (#/hr)	21		22	22		21			32			32
Confl. Bikes (#/hr)						2						
Heavy Vehicles (%)	0%	2%	4%	0%	0%	0%	0%	3%	0%	10%	3%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		44	44
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	33.2	30.2	30.2	37.2	32.2	32.2		41.8			41.8	
Effective Green, g (s)	33.2	30.2	30.2	37.2	32.2	32.2		41.8			41.8	
Actuated g/C Ratio	0.37	0.34	0.34	0.41	0.36	0.36		0.46			0.46	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		5.0			5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	241	552	436	284	601	483		548			524	
v/s Ratio Prot	0.01	0.22		c0.02	c0.24			0.33			c0.46	
v/s Ratio Perm	0.07		0.07	0.15		0.02						
v/c Ratio	0.21	0.65	0.22	0.42	0.68	0.07		0.72			0.99	
Uniform Delay, d1	19.1	25.4	21.5	17.7	24.5	19.0		19.4			23.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.95			0.57	
Incremental Delay, d2	0.4	5.8	1.2	1.0	6.0	0.3		7.5			34.9	
Delay (s)	19.6	31.2	22.6	18.7	30.5	19.3		25.9			48.6	
Level of Service	B	C	C	B	C	B		C			D	
Approach Delay (s)		28.4			27.4			25.9			48.6	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	32.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	70.3%	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												
Volume (vph)	42	291	52	64	292	34	0	278	58	0	492	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	11	11	11	11	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		0.95			1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.99			1.00	0.81		1.00	0.91		1.00	0.84
Flpb, ped/bikes		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Frt		0.98			1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99			0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		3037			1642	1164		1149	1342		1037	1229
Flt Permitted		0.81			0.85	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		2461			1414	1164		1149	1342		1037	1229
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)	44	306	55	67	307	36	0	293	61	0	518	75
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	405	0	0	374	36	0	293	61	0	518	75
Confl. Peds. (#/hr)	91		48	48		91			52			54
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	0%	3%	10%	0%	5%	3%	6%	3%	0%	4%	4%	1%
Parking (#/hr)								44			56	
Turn Type	Perm	NA		Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8			2			6
Actuated Green, G (s)		29.0			29.0	29.0		52.0	52.0		52.0	52.0
Effective Green, g (s)		29.0			29.0	29.0		52.0	52.0		52.0	52.0
Actuated g/C Ratio		0.32			0.32	0.32		0.58	0.58		0.58	0.58
Clearance Time (s)		5.0			5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		792			455	375		663	775		599	710
v/s Ratio Prot								0.26			c0.50	
v/s Ratio Perm		0.16			c0.26	0.03			0.05			0.06
v/c Ratio		0.51			0.82	0.10		0.44	0.08		0.86	0.11
Uniform Delay, d1		24.8			28.1	21.3		10.8	8.4		16.0	8.5
Progression Factor		1.00			1.00	1.00		1.21	1.08		0.67	0.52
Incremental Delay, d2		2.4			15.3	0.5		2.0	0.2		11.4	0.2
Delay (s)		27.1			43.5	21.8		15.0	9.3		22.2	4.6
Level of Service		C			D	C		B	A		C	A
Approach Delay (s)		27.1			41.6			14.0			20.0	
Approach LOS		C			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	79.0%	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												
Volume (vph)	61	337	78	107	368	84	0	319	15	0	537	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	
Frpb, ped/bikes	1.00	1.00	0.93	1.00	1.00	0.92		1.00			0.99	
Flpb, ped/bikes	0.99	1.00	1.00	0.99	1.00	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.99			0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			1.00	
Satd. Flow (prot)	1537	1647	1324	1551	1663	1294		1424			1494	
Flt Permitted	0.31	1.00	1.00	0.36	1.00	1.00		1.00			1.00	
Satd. Flow (perm)	506	1647	1324	580	1663	1294		1424			1494	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	64	355	82	113	387	88	0	336	16	0	565	55
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	64	355	82	113	387	88	0	352	0	0	620	0
Confl. Peds. (#/hr)	38		31	31		38			20			29
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	3%	2%	0%	2%	1%	1%	8%	3%	0%	7%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								10	10		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA			NA	
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8						
Actuated Green, G (s)	32.6	28.6	28.6	32.6	28.6	28.6		45.4			45.4	
Effective Green, g (s)	32.6	28.6	28.6	32.6	28.6	28.6		45.4			45.4	
Actuated g/C Ratio	0.36	0.32	0.32	0.36	0.32	0.32		0.50			0.50	
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0	5.0		4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	229	523	420	253	528	411		718			753	
v/s Ratio Prot	0.01	0.22		c0.02	c0.23			0.25			c0.42	
v/s Ratio Perm	0.09		0.06	0.14		0.07						
v/c Ratio	0.28	0.68	0.20	0.45	0.73	0.21		0.49			0.82	
Uniform Delay, d1	19.9	26.7	22.3	21.2	27.3	22.5		14.7			18.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00			0.60	
Incremental Delay, d2	0.7	6.9	1.0	1.3	8.7	1.2		2.4			5.6	
Delay (s)	20.6	33.6	23.4	22.5	36.0	23.7		17.1			17.0	
Level of Service	C	C	C	C	D	C		B			B	
Approach Delay (s)		30.3			31.6			17.1			17.0	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.2%	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												
Volume (vph)	41	157	60	49	339	88	0	260	21	0	557	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	11	11	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Util. Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes		1.00	0.91		1.00	0.96		1.00	0.94		1.00	0.88
Flpb, ped/bikes		1.00	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Frt		1.00	0.85		1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected		0.99	1.00		0.99	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)		1617	1265		1603	1373		1520	1385		1520	1204
Flt Permitted		0.83	1.00		0.94	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)		1352	1265		1509	1373		1520	1385		1520	1204
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.97	0.95	0.95	0.97	0.95	0.95
Adj. Flow (vph)	43	165	63	52	357	93	0	274	22	0	586	38
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	208	63	0	409	93	0	274	22	0	586	38
Confl. Peds. (#/hr)	12		44	44		12			19			44
Heavy Vehicles (%)	0%	8%	3%	0%	4%	0%	9%	3%	0%	5%	3%	8%
Parking (#/hr)								0			0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		28.0	28.0		28.0	28.0		38.0	38.0		38.0	38.0
Effective Green, g (s)		28.0	28.0		28.0	28.0		38.0	38.0		38.0	38.0
Actuated g/C Ratio		0.37	0.37		0.37	0.37		0.51	0.51		0.51	0.51
Clearance Time (s)		5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		504	472		563	512		770	701		770	610
v/s Ratio Prot								0.18			c0.39	
v/s Ratio Perm		0.15	0.05		c0.27	0.07			0.02			0.03
v/c Ratio		0.41	0.13		0.73	0.18		0.36	0.03		0.76	0.06
Uniform Delay, d1		17.4	15.5		20.2	15.8		11.1	9.3		14.9	9.4
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.04		1.00	1.00
Incremental Delay, d2		2.5	0.6		8.0	0.8		1.2	0.1		7.0	0.2
Delay (s)		19.9	16.1		28.2	16.6		12.3	9.8		21.8	9.6
Level of Service		B	B		C	B		B	A		C	A
Approach Delay (s)		19.0			26.0			12.1			21.1	
Approach LOS		B			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	20.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	84.3%	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												
Volume (vph)	64	290	37	88	313	82	0	210	35	0	505	32
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0			4.0	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.97			0.98			0.99	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		3044			3014			1251			1177	
Flt Permitted		0.78			0.77			1.00			1.00	
Satd. Flow (perm)		2394			2342			1251			1177	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	67	305	39	93	329	86	0	221	37	0	532	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	411	0	0	508	0	0	258	0	0	566	0
Confl. Peds. (#/hr)	6		20	20		6			5			8
Confl. Bikes (#/hr)												3
Heavy Vehicles (%)	3%	2%	0%	0%	2%	1%	0%	4%	0%	7%	4%	3%
Parking (#/hr)								28			38	
Turn Type	Perm	NA		Perm	NA			NA			NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8								
Actuated Green, G (s)		24.0			24.0			42.0			42.0	
Effective Green, g (s)		24.0			24.0			42.0			42.0	
Actuated g/C Ratio		0.32			0.32			0.56			0.56	
Clearance Time (s)		5.0			5.0			4.0			4.0	
Lane Grp Cap (vph)		766			749			700			659	
v/s Ratio Prot								0.21			c0.48	
v/s Ratio Perm		0.17			c0.22							
v/c Ratio		0.54			0.68			0.37			0.86	
Uniform Delay, d1		20.9			22.1			9.1			14.0	
Progression Factor		1.00			1.00			1.00			0.42	
Incremental Delay, d2		2.7			4.9			1.5			10.7	
Delay (s)		23.6			27.0			10.6			16.6	
Level of Service		C			C			B			B	
Approach Delay (s)		23.6			27.0			10.6			16.6	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM 2000 Control Delay	20.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

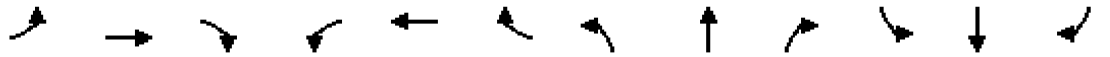
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	451	30	64	479	73	0	189	28	0	553	64
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	9	10	9	9	10	9	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0	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	1.00
Frpb, ped/bikes	1.00	1.00	0.81	1.00	1.00	0.89		1.00	0.80		1.00	0.91
Flpb, ped/bikes	0.97	1.00	1.00	0.94	1.00	1.00		1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1493	1585	1118	1447	1600	1210		1188	834		1166	900
Flt Permitted	0.19	1.00	1.00	0.22	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	295	1585	1118	338	1600	1210		1188	834		1166	900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	101	475	32	67	504	77	0	199	29	0	582	67
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	101	475	32	67	504	77	0	199	29	0	582	67
Confl. Peds. (#/hr)	54		99	99		54			68			27
Confl. Bikes (#/hr)			1			1			1			
Heavy Vehicles (%)	0%	6%	0%	0%	5%	1%	7%	4%	0%	10%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								38	38		42	42
Turn Type	Perm	NA	Perm	Perm	NA	Perm		NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	34.0	34.0	34.0	34.0	34.0	34.0		50.0	50.0		50.0	50.0
Effective Green, g (s)	34.0	34.0	34.0	34.0	34.0	34.0		50.0	50.0		50.0	50.0
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34		0.50	0.50		0.50	0.50
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Grp Cap (vph)	100	538	380	114	544	411		594	417		583	450
v/s Ratio Prot		0.30			0.32			0.17			c0.50	
v/s Ratio Perm	c0.34		0.03	0.20		0.06			0.03			0.07
v/c Ratio	1.01	0.88	0.08	0.59	0.93	0.19		0.34	0.07		1.00	0.15
Uniform Delay, d1	33.0	31.1	22.4	27.2	31.8	23.3		15.0	13.0		25.0	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.51	1.54		1.00	1.00
Incremental Delay, d2	92.7	18.6	0.4	20.3	24.1	1.0		1.4	0.3		36.9	0.7
Delay (s)	125.7	49.8	22.9	47.5	55.9	24.3		24.1	20.2		61.8	14.2
Level of Service	F	D	C	D	E	C		C	C		E	B
Approach Delay (s)		61.0			51.3			23.6			56.9	
Approach LOS		E			D			C			E	

Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	75.4%	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												
Volume (vph)	0	0	0	48	72	50	0	331	0	0	622	119
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	10	10	10	11	11	11	11	11	11
Total Lost time (s)					5.0	5.0		4.0			4.0	
Lane Util. Factor					1.00	1.00		1.00			1.00	
Frpb, ped/bikes					1.00	0.93		1.00			0.97	
Flpb, ped/bikes					0.97	1.00		1.00			1.00	
Frt					1.00	0.85		1.00			0.98	
Flt Protected					0.98	1.00		1.00			1.00	
Satd. Flow (prot)					1602	1297		1160			1007	
Flt Permitted					0.98	1.00		1.00			1.00	
Satd. Flow (perm)					1602	1297		1160			1007	
Peak-hour factor, PHF	0.94	0.94	0.95	0.95	0.95	0.95	0.94	0.95	0.95	0.94	0.95	0.95
Adj. Flow (vph)	0	0	0	51	76	53	0	348	0	0	655	125
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	127	53	0	348	0	0	780	0
Confl. Peds. (#/hr)			31	31		25			62			51
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	3%	2%	0%	0%	3%	2%
Parking (#/hr)								44			54	
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8		8						
Actuated Green, G (s)					23.0	23.0		68.0			68.0	
Effective Green, g (s)					23.0	23.0		68.0			68.0	
Actuated g/C Ratio					0.23	0.23		0.68			0.68	
Clearance Time (s)					5.0	5.0		4.0			4.0	
Lane Grp Cap (vph)					368	298		788			684	
v/s Ratio Prot								0.30			c0.77	
v/s Ratio Perm					0.08	0.04						
v/c Ratio					0.35	0.18		0.44			1.14	
Uniform Delay, d1					32.2	30.9		7.3			16.0	
Progression Factor					1.00	1.00		0.62			0.45	
Incremental Delay, d2					2.6	1.3		1.7			73.7	
Delay (s)					34.8	32.2		6.2			80.9	
Level of Service					C	C		A			F	
Approach Delay (s)		0.0			34.0			6.2			80.9	
Approach LOS		A			C			A			F	

Intersection Summary			
HCM 2000 Control Delay	54.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.5%	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												
Volume (vph)	75	359	105	95	355	66	0	318	52	0	627	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.89	1.00	0.99			1.00	0.80		1.00	0.92
Flpb, ped/bikes	0.98	1.00	1.00	0.96	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1520	1631	1248	1534	3087			1327	904		1081	862
Flt Permitted	0.39	1.00	1.00	0.25	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	620	1631	1248	405	3087			1327	904		1081	862
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.99	0.95	0.95	0.99	0.95	0.95
Adj. Flow (vph)	79	378	111	100	374	69	0	335	55	0	660	43
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	79	378	111	100	443	0	0	335	55	0	660	43
Confl. Peds. (#/hr)	14		47	47		14			65			59
Heavy Vehicles (%)	3%	3%	2%	0%	0%	0%	2%	1%	0%	0%	3%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								26	26		52	52
Turn Type	Perm	NA	Perm	Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	27.0	27.0	27.0	27.0	27.0			64.0	64.0		64.0	64.0
Effective Green, g (s)	27.0	27.0	27.0	27.0	27.0			64.0	64.0		64.0	64.0
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27			0.64	0.64		0.64	0.64
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0			4.0	4.0		4.0	4.0
Lane Grp Cap (vph)	167	440	336	109	833			849	578		691	551
v/s Ratio Prot		0.23			0.14			0.25			c0.61	
v/s Ratio Perm	0.13		0.09	c0.25					0.06			0.05
v/c Ratio	0.47	0.86	0.33	0.92	0.53			0.39	0.10		0.96	0.08
Uniform Delay, d1	30.5	34.7	29.3	35.4	31.1			8.7	6.9		16.7	6.8
Progression Factor	1.00	1.00	1.00	1.00	1.00			0.75	0.73		0.47	0.68
Incremental Delay, d2	9.3	19.2	2.6	66.1	2.4			1.3	0.3		4.1	0.0
Delay (s)	39.9	53.8	31.9	101.5	33.5			7.8	5.4		12.0	4.6
Level of Service	D	D	C	F	C			A	A		B	A
Approach Delay (s)		47.6			46.0			7.5			11.5	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	28.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	73.7%	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												
Volume (vph)	38	26	38	0	0	0	0	314	45	0	721	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	12	12	12	12	12	12	11	11	11	11	11	11
Total Lost time (s)		5.0						4.0			4.0	
Lane Util. Factor		1.00						1.00			1.00	
Frpb, ped/bikes		0.98						0.99			1.00	
Flpb, ped/bikes		0.98						1.00			1.00	
Frt		0.95						0.98			1.00	
Flt Protected		0.98						1.00			1.00	
Satd. Flow (prot)		1616						1147			1149	
Flt Permitted		0.98						1.00			1.00	
Satd. Flow (perm)		1616						1147			1149	
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.95	0.90	0.95	0.95	0.90	0.95	0.95
Adj. Flow (vph)	40	27	40	0	0	0	0	331	47	0	759	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	107	0	0	0	0	0	378	0	0	759	0
Confl. Peds. (#/hr)	11		5			11			19			16
Confl. Bikes (#/hr)									1			1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	3%	0%
Parking (#/hr)								42			44	
Turn Type	Perm	NA						NA			NA	
Protected Phases		4						2			6	
Permitted Phases	4											
Actuated Green, G (s)		10.0						81.0			81.0	
Effective Green, g (s)		10.0						81.0			81.0	
Actuated g/C Ratio		0.10						0.81			0.81	
Clearance Time (s)		5.0						4.0			4.0	
Vehicle Extension (s)		6.0						3.0			3.0	
Lane Grp Cap (vph)		161						929			930	
v/s Ratio Prot								0.33			c0.66	
v/s Ratio Perm		0.07										
v/c Ratio		0.66						0.41			0.82	
Uniform Delay, d1		43.4						2.7			5.3	
Progression Factor		1.00						0.99			0.63	
Incremental Delay, d2		15.1						1.2			4.1	
Delay (s)		58.5						3.9			7.5	
Level of Service		E						A			A	
Approach Delay (s)		58.5			0.0			3.9			7.5	
Approach LOS		E			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	60.5%	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												
Volume (vph)	94	838	174	126	1092	157	0	297	38	0	542	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	10	10	11	10	11	11	11	11	11	11
Total Lost time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.87	1.00	1.00	0.90		1.00	0.90		1.00	0.96
Flpb, ped/bikes	1.00	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	0.85		1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (prot)	1596	3179	1207	1562	3210	1253		1262	973		1092	883
Flt Permitted	0.12	1.00	1.00	0.13	1.00	1.00		1.00	1.00		1.00	1.00
Satd. Flow (perm)	207	3179	1207	214	3210	1253		1262	973		1092	883
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	99	882	183	133	1149	165	0	313	40	0	571	89
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	99	882	183	133	1149	165	0	313	40	0	571	89
Confl. Peds. (#/hr)	39		56	56		39			78			22
Heavy Vehicles (%)	0%	4%	3%	2%	3%	3%	3%	2%	0%	3%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								32	32		52	52
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)	37.2	32.4	32.4	41.4	34.6	34.6		48.6	48.6		48.6	48.6
Effective Green, g (s)	37.2	32.4	32.4	41.4	34.6	34.6		48.6	48.6		48.6	48.6
Actuated g/C Ratio	0.37	0.32	0.32	0.41	0.35	0.35		0.49	0.49		0.49	0.49
Clearance Time (s)	2.0	5.0	5.0	2.0	5.0	5.0		5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	143	1029	391	182	1110	433		613	472		530	429
v/s Ratio Prot	0.03	0.28		c0.05	c0.36			0.25			c0.52	
v/s Ratio Perm	0.22		0.15	0.25		0.13			0.04			0.10
v/c Ratio	0.69	0.86	0.47	0.73	1.04	0.38		0.51	0.08		1.08	0.21
Uniform Delay, d1	24.7	31.6	26.9	21.6	32.7	24.6		17.6	13.8		25.7	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		0.86	0.91		0.80	0.69
Incremental Delay, d2	13.5	9.2	4.0	14.0	36.5	2.5		2.9	0.3		52.5	0.6
Delay (s)	38.3	40.8	30.9	35.6	69.2	27.2		18.0	12.8		73.1	10.8
Level of Service	D	D	C	D	E	C		B	B		E	B
Approach Delay (s)		39.0			61.3			17.4			64.7	
Approach LOS		D			E			B			E	

Intersection Summary			
HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.05		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.1%	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		↕			↕			↑	↱		↑	↱
Volume (vph)	15	30	34	35	6	27	0	356	20	0	663	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	10	10	10	10	10	11	11	11	11	11	11
Total Lost time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Lane Util. Factor		1.00			1.00			1.00	1.00		1.00	1.00
Frpb, ped/bikes		0.97			0.97			1.00	0.91		1.00	0.96
Flpb, ped/bikes		0.99			0.98			1.00	1.00		1.00	1.00
Frt		0.94			0.95			1.00	0.85		1.00	0.85
Flt Protected		0.99			0.97			1.00	1.00		1.00	1.00
Satd. Flow (prot)		1515			1486			1054	1349		1166	1416
Flt Permitted		0.93			0.79			1.00	1.00		1.00	1.00
Satd. Flow (perm)		1427			1206			1054	1349		1166	1416
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)	16	32	36	37	6	28	0	375	21	0	698	8
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	84	0	0	71	0	0	375	21	0	698	8
Confl. Peds. (#/hr)	11		9	9		11			18			6
Confl. Bikes (#/hr)			2			1						
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	10%	4%	0%	11%	3%	0%
Parking (#/hr)								54			42	
Turn Type	Perm	NA		Perm	NA			NA	Perm		NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		12.0			12.0			79.0	79.0		79.0	79.0
Effective Green, g (s)		12.0			12.0			79.0	79.0		79.0	79.0
Actuated g/C Ratio		0.12			0.12			0.79	0.79		0.79	0.79
Clearance Time (s)		5.0			5.0			4.0	4.0		4.0	4.0
Vehicle Extension (s)		8.0			8.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)		171			144			832	1065		921	1118
v/s Ratio Prot								0.36			c0.60	
v/s Ratio Perm		0.06			c0.06				0.02			0.01
v/c Ratio		0.49			0.49			0.45	0.02		0.76	0.01
Uniform Delay, d1		41.1			41.2			3.4	2.2		5.5	2.2
Progression Factor		1.00			1.00			1.00	1.00		0.59	0.70
Incremental Delay, d2		9.2			10.9			1.8	0.0		3.5	0.0
Delay (s)		50.3			52.1			5.2	2.3		6.8	1.6
Level of Service		D			D			A	A		A	A
Approach Delay (s)		50.3			52.1			5.0			6.7	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.8%	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												
Volume (vph)	157	668	68	22	820	156	0	317	19	0	429	113
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width	10	11	11	10	11	11	11	11	11	11	11	11
Total Lost time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.92	1.00	0.99			1.00	0.94		1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	0.99	1.00			1.00	1.00		1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00			1.00	1.00		1.00	1.00
Satd. Flow (prot)	1549	3149	1330	1584	3119			1520	1237		1520	1241
Flt Permitted	0.13	1.00	1.00	0.36	1.00			1.00	1.00		1.00	1.00
Satd. Flow (perm)	204	3149	1330	608	3119			1520	1237		1520	1241
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.96	0.95	0.95	0.96	0.95	0.95
Adj. Flow (vph)	165	703	72	23	863	164	0	334	20	0	452	119
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	165	703	72	23	1027	0	0	334	20	0	452	119
Confl. Peds. (#/hr)	30		39	39		30			52			18
Heavy Vehicles (%)	3%	5%	2%	0%	2%	4%	2%	3%	0%	4%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	3	0	0	3
Parking (#/hr)								0	0		0	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA			NA	Perm		NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	52.7	47.7	47.7	42.8	40.8			39.0	39.0		39.0	39.0
Effective Green, g (s)	52.7	47.7	47.7	42.8	40.8			39.0	39.0		39.0	39.0
Actuated g/C Ratio	0.52	0.47	0.47	0.42	0.40			0.38	0.38		0.38	0.38
Clearance Time (s)	3.0	5.0	5.0	3.0	5.0			5.0	5.0		5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	223	1476	623	275	1251			582	474		582	475
v/s Ratio Prot	c0.06	0.22		0.00	c0.33			0.22			c0.30	
v/s Ratio Perm	0.32		0.05	0.03					0.02			0.10
v/c Ratio	0.74	0.48	0.12	0.08	0.82			0.57	0.04		0.78	0.25
Uniform Delay, d1	17.7	18.5	15.2	17.3	27.2			24.8	19.6		27.5	21.4
Progression Factor	1.00	1.00	1.00	1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	12.1	1.1	0.4	0.1	6.1			4.1	0.2		9.8	1.3
Delay (s)	29.8	19.6	15.5	17.5	33.3			28.9	19.8		37.3	22.6
Level of Service	C	B	B	B	C			C	B		D	C
Approach Delay (s)		21.1			33.0			28.3			34.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	28.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	101.7	Sum of lost time (s)	13.0
Intersection Capacity Utilization	78.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group