Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	550	15	135	420	250	10	65	365	390	25	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	1.00	0.97	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	3539	1518	3273	3438	1484	1770	1863	1533	1770	1596	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1719	3539	1518	3273	3438	1484	1770	1863	1533	1770	1596	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	100	611	17	150	467	278	12	76	429	433	28	78
RTOR Reduction (vph)	0	0	8	0	0	113	0	0	156	0	39	0
Lane Group Flow (vph)	100	611	9	150	467	165	12	76	273	433	67	0
Confl. Peds. (#/hr)			13			12			10			20
Confl. Bikes (#/hr)			3			2			1		1	
Heavy Vehicles (%)	5%	2%	2%	7%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.0	23.3	23.3	15.1	30.4	30.4	0.8	26.2	26.2	29.4	54.8	
Effective Green, g (s)	8.0	23.3	23.3	15.1	30.4	30.4	0.8	26.2	26.2	29.4	54.8	
Actuated g/C Ratio	0.07	0.21	0.21	0.14	0.28	0.28	0.01	0.24	0.24	0.27	0.50	
Clearance Time (s)	4.0	4.0	4.0	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	3.0	3.0	3.0	
Lane Grp Cap (vph)	125	750	322	449	950	410	13	444	365	473	795	
v/s Ratio Prot	0.06	c0.17		0.05	c0.14		0.01	0.04		c0.24	0.04	
v/s Ratio Perm			0.01			0.11			c0.18			
v/c Ratio	0.80	0.81	0.03	0.33	0.49	0.40	0.92	0.17	0.75	0.92	0.08	
Uniform Delay, d1	50.2	41.3	34.4	42.9	33.3	32.4	54.6	33.3	38.8	39.1	14.5	
Progression Factor	1.00	1.00	1.00	0.75	0.67	0.77	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	29.5	6.8	0.0	0.4	1.7	2.8	207.3	0.8	13.1	22.3	0.2	
Delay (s)	79.7	48.1	34.4	32.7	24.1	27.8	261.9	34.1	51.9	61.3	14.7	
Level of Service	E	D	C	C	C	C	F	C	D	E	B	
Approach Delay (s)		52.1			26.7			54.2			52.2	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	44.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

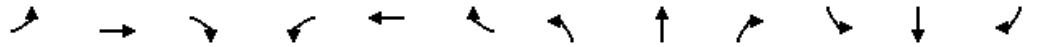
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	110	1195	770	270	155	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1497	1770	1547
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1497	1770	1547
Peak-hour factor, PHF	0.93	0.93	0.90	0.90	0.86	0.86
Adj. Flow (vph)	118	1285	856	300	180	47
RTOR Reduction (vph)	0	0	0	45	0	40
Lane Group Flow (vph)	118	1285	856	255	180	7
Confl. Peds. (#/hr)				8		4
Confl. Bikes (#/hr)				13		2
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.6	85.5	68.9	68.9	16.5	16.5
Effective Green, g (s)	12.6	85.5	68.9	68.9	16.5	16.5
Actuated g/C Ratio	0.11	0.78	0.63	0.63	0.15	0.15
Clearance Time (s)	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
Lane Grp Cap (vph)	203	2751	2217	938	266	232
v/s Ratio Prot	c0.07	c0.36	0.24		c0.10	
v/s Ratio Perm				0.17		0.00
v/c Ratio	0.58	0.47	0.39	0.27	0.68	0.03
Uniform Delay, d1	46.2	4.3	10.1	9.3	44.2	39.9
Progression Factor	1.07	0.38	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.7	0.4	0.5	0.7	6.7	0.1
Delay (s)	52.3	2.0	10.6	10.0	50.9	40.0
Level of Service	D	A	B	A	D	D
Approach Delay (s)		6.2	10.5		48.6	
Approach LOS		A	B		D	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.9%	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)	115	955	360	35	875	70	145	45	25	100	90	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.97	1.00	1.00	0.95	1.00	1.00	0.97	1.00	1.00	0.90
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1529	1770	3539	1482	1770	1863	1533	1719	1863	1428
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1529	1770	3539	1482	1770	1863	1533	1719	1863	1428
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.80	0.80	0.80
Adj. Flow (vph)	128	1061	400	38	951	76	161	50	28	125	112	219
RTOR Reduction (vph)	0	0	44	0	0	9	0	0	22	0	0	135
Lane Group Flow (vph)	128	1061	356	38	951	67	161	50	6	125	112	84
Confl. Peds. (#/hr)			4			9			4			16
Confl. Bikes (#/hr)		1	5		1	2		2	12		11	44
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	2%	2%	2%	5%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.5	40.6	40.6	3.1	32.2	32.2	13.1	16.9	16.9	9.4	13.2	13.2
Effective Green, g (s)	11.5	40.6	40.6	3.1	32.2	32.2	13.1	16.9	16.9	9.4	13.2	13.2
Actuated g/C Ratio	0.13	0.47	0.47	0.04	0.37	0.37	0.15	0.20	0.20	0.11	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	237	1671	722	64	1325	555	270	366	301	188	286	219
v/s Ratio Prot	c0.07	c0.30		0.02	c0.27		c0.09	c0.03		0.07	c0.06	
v/s Ratio Perm			0.23			0.04			0.00			0.06
v/c Ratio	0.54	0.63	0.49	0.59	0.72	0.12	0.60	0.14	0.02	0.66	0.39	0.38
Uniform Delay, d1	34.8	17.1	15.6	40.8	23.0	17.6	34.0	28.5	27.9	36.8	32.8	32.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.8	0.5	13.9	1.9	0.1	3.5	0.2	0.0	8.6	0.9	1.1
Delay (s)	37.3	17.9	16.2	54.7	24.9	17.7	37.5	28.7	27.9	45.3	33.7	33.8
Level of Service	D	B	B	D	C	B	D	C	C	D	C	C
Approach Delay (s)		19.0			25.5			34.5			37.0	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	24.0
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)	30	810	185	145	690	35	170	130	50	50	205	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	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	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	3539	1519	1770	3539	1417	1703	1759	1461	1770	3343	1530
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	3539	1519	1770	3539	1417	1703	1759	1461	1770	3343	1530
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	33	900	206	161	767	39	191	146	56	56	228	67
RTOR Reduction (vph)	0	0	27	0	0	17	0	0	33	0	0	37
Lane Group Flow (vph)	33	900	179	161	767	22	191	146	23	56	228	30
Confl. Peds. (#/hr)			3			4			4			13
Confl. Bikes (#/hr)		2	8		3	5		2	73		71	1
Heavy Vehicles (%)	7%	2%	4%	2%	2%	10%	6%	8%	2%	2%	8%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.2	29.8	29.8	12.2	38.8	38.8	14.1	23.4	23.4	4.2	13.5	13.5
Effective Green, g (s)	3.2	29.8	29.8	12.2	38.8	38.8	14.1	23.4	23.4	4.2	13.5	13.5
Actuated g/C Ratio	0.04	0.35	0.35	0.14	0.45	0.45	0.16	0.27	0.27	0.05	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	63	1232	529	252	1604	642	281	481	399	87	527	241
v/s Ratio Prot	0.02	c0.25		c0.09	0.22		c0.11	0.08		0.03	c0.07	
v/s Ratio Perm			0.12			0.02			0.02			0.02
v/c Ratio	0.52	0.73	0.34	0.64	0.48	0.03	0.68	0.30	0.06	0.64	0.43	0.12
Uniform Delay, d1	40.5	24.4	20.6	34.6	16.3	13.0	33.6	24.6	23.0	40.0	32.6	31.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.6	2.3	0.4	5.2	0.2	0.0	6.4	0.4	0.1	15.2	0.6	0.2
Delay (s)	48.1	26.7	21.0	39.9	16.6	13.0	40.0	25.0	23.0	55.1	33.2	31.2
Level of Service	D	C	C	D	B	B	D	C	C	E	C	C
Approach Delay (s)		26.3			20.3			32.0			36.3	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	85.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	790	215	230	645	150	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.95	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1497	1770	3539	1770	1562
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1497	1770	3539	1770	1562
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	878	239	256	717	167	217
RTOR Reduction (vph)	0	35	0	0	0	182
Lane Group Flow (vph)	878	204	256	717	167	35
Confl. Peds. (#/hr)		8				
Confl. Bikes (#/hr)		14				1
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	24.1	24.1	15.0	43.1	12.1	12.1
Effective Green, g (s)	24.1	24.1	15.0	43.1	12.1	12.1
Actuated g/C Ratio	0.32	0.32	0.20	0.57	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	1136	480	354	2031	285	252
v/s Ratio Prot	c0.25		c0.14	0.20	c0.09	
v/s Ratio Perm		0.14				0.02
v/c Ratio	0.77	0.42	0.72	0.35	0.59	0.14
Uniform Delay, d1	23.0	20.0	28.1	8.5	29.2	27.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.3	0.6	7.1	0.1	3.1	0.3
Delay (s)	26.4	20.7	35.2	8.7	32.2	27.3
Level of Service	C	C	D	A	C	C
Approach Delay (s)	25.1			15.7	29.4	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	22.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	75.1	Sum of lost time (s)	23.9
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	940	790	175	210	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1461	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1461	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	1044	878	194	233	94
RTOR Reduction (vph)	0	0	0	18	0	71
Lane Group Flow (vph)	50	1044	878	176	233	23
Confl. Peds. (#/hr)				11		
Confl. Bikes (#/hr)			15			
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.9	33.7	25.8	25.8	15.6	15.6
Effective Green, g (s)	3.9	33.7	25.8	25.8	15.6	15.6
Actuated g/C Ratio	0.06	0.53	0.41	0.41	0.25	0.25
Clearance Time (s)	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
Lane Grp Cap (vph)	109	1890	1447	597	438	391
v/s Ratio Prot	0.03	c0.29	c0.25		c0.13	
v/s Ratio Perm				0.12		0.01
v/c Ratio	0.46	0.55	0.61	0.29	0.53	0.06
Uniform Delay, d1	28.6	9.7	14.7	12.5	20.6	18.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.4	0.7	0.3	1.2	0.1
Delay (s)	31.6	10.1	15.4	12.8	21.8	18.2
Level of Service	C	B	B	B	C	B
Approach Delay (s)		11.1	14.9		20.8	
Approach LOS		B	B		C	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	63.1	Sum of lost time (s)	17.8
Intersection Capacity Utilization	46.8%	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)	30	990	130	360	825	90	60	75	180	285	190	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.96	1.00	1.00	0.97	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1538	3400	3539	1519	1752	1863	1519	1770	1863	1436
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1538	3400	3539	1519	1752	1863	1519	1770	1863	1436
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	33	1100	144	400	917	100	71	88	212	317	211	89
RTOR Reduction (vph)	0	0	19	0	0	8	0	0	172	0	0	25
Lane Group Flow (vph)	33	1100	125	400	917	92	71	88	40	317	211	64
Confl. Peds. (#/hr)			2			6			10			20
Confl. Bikes (#/hr)			2		3	2						9
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	3%	2%	3%	2%	2%	6%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.3	39.4	39.4	15.4	51.5	51.5	7.1	11.6	11.6	22.5	27.0	27.0
Effective Green, g (s)	3.3	39.4	39.4	15.4	51.5	51.5	7.1	11.6	11.6	22.5	27.0	27.0
Actuated g/C Ratio	0.03	0.38	0.38	0.15	0.49	0.49	0.07	0.11	0.11	0.21	0.26	0.26
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	56	1329	578	499	1737	746	119	206	168	380	480	370
v/s Ratio Prot	0.02	c0.31		c0.12	0.26		0.04	0.05		c0.18	c0.11	
v/s Ratio Perm			0.08			0.06			0.03			0.04
v/c Ratio	0.59	0.83	0.22	0.80	0.53	0.12	0.60	0.43	0.24	0.83	0.44	0.17
Uniform Delay, d1	50.1	29.7	22.3	43.3	18.3	14.5	47.5	43.5	42.6	39.4	32.6	30.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.9	4.4	0.2	9.0	0.3	0.1	7.8	1.4	0.7	14.5	0.6	0.2
Delay (s)	65.0	34.1	22.4	52.3	18.6	14.5	55.3	45.0	43.4	53.9	33.3	30.5
Level of Service	E	C	C	D	B	B	E	D	D	D	C	C
Approach Delay (s)		33.5			27.8			46.0			43.5	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	34.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	104.9	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)	0	1375	80	65	1205	0	70	0	95	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		0.95	1.00	1.00	0.95			1.00	1.00			
Frpb, ped/bikes		1.00	0.89	1.00	1.00			1.00	0.99			
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00	1.00			
Frt		1.00	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		3539	1370	1656	3539			1770	1563			
Flt Permitted		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (perm)		3539	1370	1656	3539			1770	1563			
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.80	0.80
Adj. Flow (vph)	0	1528	89	72	1339	0	82	0	112	0	0	0
RTOR Reduction (vph)	0	0	7	0	0	0	0	0	100	0	0	0
Lane Group Flow (vph)	0	1528	82	72	1339	0	0	82	12	0	0	0
Confl. Peds. (#/hr)			47			1			1			
Confl. Bikes (#/hr)			5			1						3
Heavy Vehicles (%)	2%	2%	5%	9%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)		38.2	38.2	3.5	45.7			6.4	6.4			
Effective Green, g (s)		38.2	38.2	3.5	45.7			6.4	6.4			
Actuated g/C Ratio		0.64	0.64	0.06	0.76			0.11	0.11			
Clearance Time (s)		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			
Lane Grp Cap (vph)		2249	871	96	2691			188	166			
v/s Ratio Prot		c0.43		c0.04	0.38			c0.05				
v/s Ratio Perm			0.06						0.01			
v/c Ratio		0.68	0.09	0.75	0.50			0.44	0.07			
Uniform Delay, d1		7.0	4.2	27.9	2.8			25.2	24.2			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		0.8	0.0	27.6	0.1			1.6	0.2			
Delay (s)		7.9	4.3	55.4	2.9			26.8	24.4			
Level of Service		A	A	E	A			C	C			
Approach Delay (s)		7.7			5.6			25.4			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	7.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	60.1	Sum of lost time (s)	12.0
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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	65	315	90	55	120	135	20	90	45	120	110	50
Peak Hour Factor	0.85	0.85	0.85	0.73	0.73	0.73	0.64	0.64	0.64	0.87	0.87	0.87
Hourly flow rate (vph)	76	371	106	75	164	185	31	141	70	138	126	57

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	76	476	75	349	172	70	264	57
Volume Left (vph)	76	0	75	0	31	0	138	0
Volume Right (vph)	0	106	0	185	0	70	0	57
Hadj (s)	0.53	-0.12	0.53	-0.32	0.17	-0.67	0.30	-0.67
Departure Headway (s)	7.9	7.2	8.1	7.3	8.4	7.5	8.3	7.3
Degree Utilization, x	0.17	0.95	0.17	0.71	0.40	0.15	0.61	0.12
Capacity (veh/h)	442	476	428	477	406	455	425	474
Control Delay (s)	11.2	55.4	11.6	24.7	15.7	10.6	22.0	10.1
Approach Delay (s)	49.3		22.3		14.2		19.9	
Approach LOS	E		C		B		C	

Intersection Summary				
Delay	30.2			
HCM Level of Service	D			
Intersection Capacity Utilization	54.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	215	230	135	360	215	55
Peak Hour Factor	0.80	0.80	0.79	0.79	0.57	0.57
Hourly flow rate (vph)	269	288	171	456	377	96

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total (vph)	269	288	171	456	474
Volume Left (vph)	0	0	171	0	377
Volume Right (vph)	0	288	0	0	96
Hadj (s)	0.03	-0.67	0.53	0.03	0.07
Departure Headway (s)	7.6	6.8	7.9	7.4	6.8
Degree Utilization, x	0.57	0.55	0.37	0.93	0.89
Capacity (veh/h)	454	502	447	477	517
Control Delay (s)	18.8	16.6	14.4	51.9	43.0
Approach Delay (s)	17.7		41.7		43.0
Approach LOS	C		E		E

Intersection Summary			
Delay	34.0		
HCM Level of Service	D		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	195	105	115	120	260	450
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.94	1.00	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1487	1770	1792	1863	1475
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1487	1770	1792	1863	1475
Peak-hour factor, PHF	0.80	0.80	0.83	0.83	0.78	0.78
Adj. Flow (vph)	244	131	139	145	333	577
RTOR Reduction (vph)	0	102	0	0	0	345
Lane Group Flow (vph)	244	29	139	145	333	232
Confl. Peds. (#/hr)	66					15
Confl. Bikes (#/hr)		24		17	2	31
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	9.6	9.6	4.8	26.5	17.7	17.7
Effective Green, g (s)	9.6	9.6	4.8	26.5	17.7	17.7
Actuated g/C Ratio	0.22	0.22	0.11	0.60	0.40	0.40
Clearance Time (s)	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
Lane Grp Cap (vph)	385	324	193	1077	748	592
v/s Ratio Prot	c0.14		c0.08	0.08	c0.18	
v/s Ratio Perm		0.02				0.16
v/c Ratio	0.63	0.09	0.72	0.13	0.45	0.39
Uniform Delay, d1	15.7	13.8	19.0	3.8	9.6	9.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.1	12.4	0.1	0.4	0.4
Delay (s)	19.0	13.9	31.4	3.9	10.0	9.8
Level of Service	B	B	C	A	B	A
Approach Delay (s)	17.2			17.4	9.9	
Approach LOS	B			B	A	

Intersection Summary			
HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	44.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	45	30	105	50	25	100
Peak Hour Factor	0.65	0.65	0.89	0.89	0.74	0.74
Hourly flow rate (vph)	69	46	118	56	34	135

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	115	118	56	34	135
Volume Left (vph)	69	0	0	34	0
Volume Right (vph)	46	0	56	0	0
Hadj (s)	-0.09	0.03	-0.67	0.53	0.14
Departure Headway (s)	4.6	5.0	4.3	5.5	5.1
Degree Utilization, x	0.15	0.16	0.07	0.05	0.19
Capacity (veh/h)	728	700	810	633	687
Control Delay (s)	8.4	7.7	6.4	7.6	8.1
Approach Delay (s)	8.4	7.3		8.0	
Approach LOS	A	A		A	

Intersection Summary			
Delay	7.8		
HCM Level of Service	A		
Intersection Capacity Utilization	19.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	335	15	40	345	40	15	40	25	60	85	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.92		1.00	0.98		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		0.99	1.00		0.99	1.00		0.98	1.00
Satd. Flow (prot)		1856	1287		1853	1422		1692	1547		1803	1366
Flt Permitted		0.94	1.00		0.84	1.00		0.91	1.00		0.86	1.00
Satd. Flow (perm)		1751	1287		1566	1422		1557	1547		1579	1366
Peak-hour factor, PHF	0.69	0.69	0.69	0.73	0.73	0.73	0.71	0.71	0.71	0.63	0.63	0.63
Adj. Flow (vph)	36	486	22	55	473	55	21	56	35	95	135	40
RTOR Reduction (vph)	0	0	13	0	0	33	0	0	21	0	0	24
Lane Group Flow (vph)	0	522	9	0	528	22	0	77	14	0	230	16
Confl. Peds. (#/hr)	12		3	3		12	9		1	1		9
Confl. Bikes (#/hr)		1	56		4	45		2	2		1	88
Heavy Vehicles (%)	2%	2%	16%	2%	2%	5%	20%	7%	2%	2%	4%	5%
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		700	515		626	569		623	619		632	546
v/s Ratio Prot												
v/s Ratio Perm		0.30	0.01		c0.34	0.02		0.05	0.01		c0.15	0.01
v/c Ratio		0.75	0.02		0.84	0.04		0.12	0.02		0.36	0.03
Uniform Delay, d1		10.3	7.2		10.9	7.3		7.6	7.3		8.4	7.3
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		7.1	0.1		13.1	0.1		0.4	0.1		1.6	0.1
Delay (s)		17.4	7.3		23.9	7.4		8.0	7.3		10.0	7.4
Level of Service		B	A		C	A		A	A		B	A
Approach Delay (s)		17.0			22.4			7.8			9.7	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	265	85	65	400	30	70	120	35	35	175	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.95	1.00	0.99			0.99			1.00	0.93
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frt		1.00	0.85	1.00	0.99			0.98			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00			0.98			0.99	1.00
Satd. Flow (prot)		1857	1505	1749	1827			1563			1845	1438
Flt Permitted		0.96	1.00	0.42	1.00			0.81			0.91	1.00
Satd. Flow (perm)		1796	1505	771	1827			1292			1691	1438
Peak-hour factor, PHF	0.68	0.68	0.68	0.80	0.80	0.80	0.76	0.76	0.76	0.65	0.65	0.65
Adj. Flow (vph)	22	390	125	81	500	38	92	158	46	54	269	31
RTOR Reduction (vph)	0	0	70	0	6	0	0	13	0	0	0	15
Lane Group Flow (vph)	0	412	55	81	532	0	0	283	0	0	323	16
Confl. Peds. (#/hr)	6		2	2		6	10		9	9		10
Confl. Bikes (#/hr)		2	29		2	110		3	10		8	33
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	14%	2%	2%	5%
Parking (#/hr)								1				
Turn Type	Perm		Perm	Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)		22.0	22.0	22.0	22.0			20.0			20.0	20.0
Effective Green, g (s)		22.0	22.0	22.0	22.0			20.0			20.0	20.0
Actuated g/C Ratio		0.44	0.44	0.44	0.44			0.40			0.40	0.40
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		790	662	339	804			517			676	575
v/s Ratio Prot					c0.29							
v/s Ratio Perm		0.23	0.04	0.11				c0.22			0.19	0.01
v/c Ratio		0.52	0.08	0.24	0.66			0.55			0.48	0.03
Uniform Delay, d1		10.2	8.1	8.8	11.1			11.5			11.1	9.1
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2		2.5	0.2	1.7	4.3			4.1			2.4	0.1
Delay (s)		12.6	8.4	10.4	15.3			15.6			13.5	9.2
Level of Service		B	A	B	B			B			B	A
Approach Delay (s)		11.6			14.7			15.6			13.2	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.7%	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)	15	325	225	40	505	85	20	150	55	165	240	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.97			0.97		1.00	1.00	0.94	1.00	1.00	0.91
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1701			1763		1597	1776	1401	1770	1863	1435
Flt Permitted		0.97			0.92		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1654			1619		1597	1776	1401	1770	1863	1435
Peak-hour factor, PHF	0.68	0.68	0.68	0.76	0.76	0.76	0.84	0.84	0.84	0.78	0.78	0.78
Adj. Flow (vph)	22	478	331	53	664	112	24	179	65	212	308	58
RTOR Reduction (vph)	0	24	0	0	5	0	0	0	26	0	0	13
Lane Group Flow (vph)	0	807	0	0	824	0	24	179	39	212	308	45
Confl. Peds. (#/hr)	6		7	7		6			13			9
Confl. Bikes (#/hr)			37		14	237			2		2	39
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	13%	7%	8%	2%	2%	2%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		53.7			53.7		2.1	16.1	16.1	15.0	29.0	29.0
Effective Green, g (s)		53.7			53.7		2.1	16.1	16.1	15.0	29.0	29.0
Actuated g/C Ratio		0.55			0.55		0.02	0.17	0.17	0.15	0.30	0.30
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)		918			898		35	295	233	274	558	430
v/s Ratio Prot							0.02	0.10		c0.12	c0.17	
v/s Ratio Perm		0.49			c0.51				0.03			0.03
v/c Ratio		0.88			0.92		0.69	0.61	0.17	0.77	0.55	0.11
Uniform Delay, d1		18.7			19.5		47.0	37.4	34.6	39.3	28.4	24.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		9.6			13.9		43.6	3.5	0.3	12.7	1.2	0.1
Delay (s)		28.4			33.4		90.6	40.9	34.9	52.0	29.6	24.6
Level of Service		C			C		F	D	C	D	C	C
Approach Delay (s)		28.4			33.4			43.9			37.3	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	96.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.9%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	95	405	80	75	545	15	60	25	10	55	35	120
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72	0.80	0.80	0.80
Hourly flow rate (vph)	106	450	89	83	606	17	83	35	14	69	44	150

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	106	539	706	118	14	113	150
Volume Left (vph)	106	0	83	83	0	69	0
Volume Right (vph)	0	89	17	0	14	0	150
Hadj (s)	0.53	-0.08	0.07	0.18	-0.36	0.36	-0.63
Departure Headway (s)	7.5	6.9	7.2	8.9	3.2	8.6	7.6
Degree Utilization, x	0.22	1.03	1.41	0.29	0.01	0.27	0.32
Capacity (veh/h)	471	527	515	392	1121	412	466
Control Delay (s)	11.4	72.5	214.8	15.6	6.2	13.5	12.8
Approach Delay (s)	62.5		214.8	14.6		13.1	
Approach LOS	F		F	B		B	

Intersection Summary				
Delay	113.0			
HCM Level of Service	F			
Intersection Capacity Utilization	81.9%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	445	35	65	635	60	15	75	15	60	200	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		1.00	1.00	
Frt		0.99			0.99		1.00	0.98		1.00	0.96	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3319			3444		1667	1550		1763	1561	
Flt Permitted		1.00			1.00		0.34	1.00		0.68	1.00	
Satd. Flow (perm)		3319			3444		591	1550		1268	1561	
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	26	571	45	83	814	77	19	96	19	77	256	90
RTOR Reduction (vph)	0	8	0	0	8	0	0	9	0	0	17	0
Lane Group Flow (vph)	0	634	0	0	966	0	19	106	0	77	329	0
Confl. Peds. (#/hr)	3		9	9		3	19		3	3		19
Confl. Bikes (#/hr)		1	1			8			2		1	24
Heavy Vehicles (%)	18%	7%	2%	2%	3%	2%	7%	5%	8%	2%	2%	2%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		17.0			24.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		17.0			24.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio		0.23			0.32		0.29	0.29		0.29	0.29	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		752			1102		173	455		372	458	
v/s Ratio Prot		c0.19			c0.28			0.07			c0.21	
v/s Ratio Perm							0.03			0.06		
v/c Ratio		0.84			0.88		0.11	0.23		0.21	0.72	
Uniform Delay, d1		27.7			24.1		19.4	20.1		19.9	23.7	
Progression Factor		1.00			0.88		1.00	1.00		1.00	1.00	
Incremental Delay, d2		11.1			6.9		1.3	1.2		1.3	9.3	
Delay (s)		38.9			28.1		20.6	21.3		21.2	33.1	
Level of Service		D			C		C	C		C	C	
Approach Delay (s)		38.9			28.1			21.2			30.9	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	335	135	35	730	25	20	30	45	30	30	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.99			1.00		1.00	0.97		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.97	1.00	
Frt		0.96			1.00		1.00	0.91		1.00	0.95	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3220			3503		1589	1402		1690	1358	
Flt Permitted		1.00			1.00		0.71	1.00		0.70	1.00	
Satd. Flow (perm)		3220			3503		1190	1402		1252	1358	
Peak-hour factor, PHF	0.78	0.78	0.78	0.79	0.79	0.79	0.91	0.91	0.91	0.64	0.64	0.64
Adj. Flow (vph)	19	429	173	44	924	32	22	33	49	47	47	23
RTOR Reduction (vph)	0	54	0	0	3	0	0	38	0	0	18	0
Lane Group Flow (vph)	0	567	0	0	997	0	22	44	0	47	52	0
Confl. Peds. (#/hr)	4		7	7		4	4		21	21		4
Confl. Bikes (#/hr)			2		2	9			2		2	10
Heavy Vehicles (%)	18%	6%	5%	2%	2%	9%	13%	7%	6%	4%	14%	22%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		18.0			28.0		17.0	17.0		17.0	17.0	
Effective Green, g (s)		18.0			28.0		17.0	17.0		17.0	17.0	
Actuated g/C Ratio		0.24			0.37		0.23	0.23		0.23	0.23	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		773			1308		270	318		284	308	
v/s Ratio Prot		c0.18			c0.28			0.03			c0.04	
v/s Ratio Perm							0.02			0.04		
v/c Ratio		0.73			0.76		0.08	0.14		0.17	0.17	
Uniform Delay, d1		26.3			20.6		22.8	23.2		23.3	23.3	
Progression Factor		0.28			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.9			4.2		0.6	0.9		1.3	1.2	
Delay (s)		11.3			24.8		23.4	24.1		24.6	24.5	
Level of Service		B			C		C	C		C	C	
Approach Delay (s)		11.3			24.8			23.9			24.5	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.6%	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 (veh/h)	630	730	110	185	1070	130	35	265	50	80	50	165
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	700	811	122	206	1189	144	39	294	56	89	56	183
Pedestrians								78				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								4.0				
Percent Blockage								7				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		932			1318							
pX, platoon unblocked	0.80						0.80	0.80		0.80	0.80	0.80
vC, conflicting volume	1333			889			3506	4034	484	3625	3961	667
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	918			889			3632	4291	484	3781	4201	85
tC, single (s)	4.1			4.1			7.6	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	0			71			0	0	89	0	0	76
cM capacity (veh/h)	592			708			0	0	495	0	0	766

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	700	406	406	122	206	793	541	333	56	144	183	
Volume Left	700	0	0	0	206	0	0	39	0	89	0	
Volume Right	0	0	0	122	0	0	144	0	56	0	183	
cSH	592	1700	1700	1700	708	1700	1700	0	495	0	766	
Volume to Capacity	1.18	0.24	0.24	0.07	0.29	0.47	0.32	Err	0.11	Err	0.24	
Queue Length 95th (ft)	609	0	0	0	30	0	0	Err	9	Err	23	
Control Delay (s)	122.6	0.0	0.0	0.0	12.1	0.0	0.0	Err	13.2	Err	11.2	
Lane LOS	F				B			F	B	F	B	
Approach Delay (s)	52.6				1.6			Err		Err		
Approach LOS								F		F		

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	104.9%	ICU Level of Service	G	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	825	35	60	1325	60	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.81	0.81
Hourly flow rate (vph)	917	39	67	1472	74	6
Pedestrians	73			73	73	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	6			6	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				724		
pX, platoon unblocked					0.74	
vC, conflicting volume			1029		1952	624
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1029		1576	624
tC, single (s)			4.1		6.9	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		0	98
cM capacity (veh/h)			630		58	378

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	611	344	67	736	736	80
Volume Left	0	0	67	0	0	74
Volume Right	0	39	0	0	0	6
cSH	1700	1700	630	1700	1700	62
Volume to Capacity	0.36	0.20	0.11	0.43	0.43	1.30
Queue Length 95th (ft)	0	0	9	0	0	169
Control Delay (s)	0.0	0.0	11.4	0.0	0.0	327.1
Lane LOS			B			F
Approach Delay (s)	0.0		0.5			327.1
Approach LOS						F

Intersection Summary			
Average Delay	10.5		
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	430	125	80	900	255	155	205	70	170	315	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.66	1.00	1.00	0.98	1.00	1.00	0.93	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	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1024	1736	3539	1558	1752	1712	1476	1752	1827	1547
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1024	1736	3539	1558	1752	1712	1476	1752	1827	1547
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	306	478	139	89	1000	283	172	228	78	189	350	367
RTOR Reduction (vph)	0	0	82	0	0	63	0	0	25	0	0	249
Lane Group Flow (vph)	306	478	57	89	1000	220	172	228	53	189	350	118
Confl. Peds. (#/hr)			116			1			38			1
Confl. Bikes (#/hr)			2			3						9
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%	3%	11%	2%	3%	4%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	16.8	37.1	37.1	7.6	27.9	27.9	10.0	18.2	18.2	11.0	19.2	19.2
Effective Green, g (s)	16.8	37.1	37.1	7.6	27.9	27.9	10.0	18.2	18.2	11.0	19.2	19.2
Actuated g/C Ratio	0.19	0.41	0.41	0.08	0.31	0.31	0.11	0.20	0.20	0.12	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	331	1460	423	147	1098	484	195	347	299	214	390	330
v/s Ratio Prot	c0.17	0.14		0.05	c0.28		0.10	0.13		c0.11	c0.19	
v/s Ratio Perm			0.06			0.14			0.04			0.08
v/c Ratio	0.92	0.33	0.14	0.61	0.91	0.45	0.88	0.66	0.18	0.88	0.90	0.36
Uniform Delay, d1	35.9	17.9	16.4	39.7	29.8	24.9	39.4	33.0	29.7	38.8	34.4	30.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	30.6	0.1	0.1	6.9	11.2	0.7	34.0	4.4	0.3	32.0	22.4	0.7
Delay (s)	66.5	18.1	16.6	46.6	41.0	25.6	73.4	37.4	29.9	70.8	56.8	30.8
Level of Service	E	B	B	D	D	C	E	D	C	E	E	C
Approach Delay (s)		33.9			38.2			49.1			49.2	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	41.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	620	50	55	1160	75	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.93	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	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1468	1770	3539	1770	1558
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1468	1770	3539	1770	1558
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.47	0.47
Adj. Flow (vph)	729	59	61	1289	160	106
RTOR Reduction (vph)	0	27	0	0	0	68
Lane Group Flow (vph)	729	32	61	1289	160	38
Confl. Peds. (#/hr)		19				
Confl. Bikes (#/hr)		4				3
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	31.7	31.7	7.0	42.7	13.2	13.2
Effective Green, g (s)	31.7	31.7	7.0	42.7	13.2	13.2
Actuated g/C Ratio	0.38	0.38	0.08	0.51	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	1320	553	147	1795	277	244
v/s Ratio Prot	0.21		0.03	c0.36	c0.09	
v/s Ratio Perm		0.02				0.02
v/c Ratio	0.55	0.06	0.41	0.72	0.58	0.15
Uniform Delay, d1	20.7	16.7	36.7	16.1	32.9	30.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.0	1.9	1.4	2.9	0.3
Delay (s)	21.2	16.8	38.6	17.5	35.8	31.0
Level of Service	C	B	D	B	D	C
Approach Delay (s)	20.8			18.4	33.9	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	84.2	Sum of lost time (s)	28.3
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	70	695	945	95	155	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1719	3539	3505	1521	1770	1537
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1719	3539	3505	1521	1770	1537
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	772	1050	106	172	194
RTOR Reduction (vph)	0	0	0	19	0	110
Lane Group Flow (vph)	78	772	1050	87	172	84
Confl. Peds. (#/hr)				4		13
Confl. Bikes (#/hr)				2		1
Heavy Vehicles (%)	5%	2%	3%	3%	2%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	6.7	40.1	29.4	29.4	13.4	13.4
Effective Green, g (s)	6.7	40.1	29.4	29.4	13.4	13.4
Actuated g/C Ratio	0.10	0.59	0.44	0.44	0.20	0.20
Clearance Time (s)	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
Lane Grp Cap (vph)	171	2106	1529	663	352	306
v/s Ratio Prot	c0.05	0.22	c0.30		c0.10	
v/s Ratio Perm				0.06		0.05
v/c Ratio	0.46	0.37	0.69	0.13	0.49	0.28
Uniform Delay, d1	28.6	7.1	15.3	11.4	24.0	22.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	0.1	1.3	0.1	1.1	0.5
Delay (s)	30.6	7.2	16.6	11.5	25.0	23.4
Level of Service	C	A	B	B	C	C
Approach Delay (s)		9.3	16.1		24.2	
Approach LOS		A	B		C	

Intersection Summary			
HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	67.4	Sum of lost time (s)	17.9
Intersection Capacity Utilization	50.3%	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 (veh/h)	5	805	35	35	965	5	70	5	50	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.90	0.90	0.90	0.25	0.25	0.25
Hourly flow rate (vph)	5	856	37	39	1072	6	78	6	56	20	20	20
Pedestrians								12				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								4.0				
Percent Blockage								1				
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		903										
pX, platoon unblocked				0.93			0.93	0.93	0.93	0.93	0.93	
vC, conflicting volume	1078			906			1542	2053	459	1650	2069	539
vC1, stage 1 conf vol							898	898		1153	1153	
vC2, stage 2 conf vol							644	1156		497	916	
vCu, unblocked vol	1078			738			1425	1977	255	1542	1994	539
tC, single (s)	4.1			4.3			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			69	97	92	89	90	96
cM capacity (veh/h)	643			745			251	209	676	186	205	487

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	5	571	323	575	542	139	60
Volume Left	5	0	0	39	0	78	20
Volume Right	0	0	37	0	6	56	20
cSH	643	1700	1700	745	1700	332	244
Volume to Capacity	0.01	0.34	0.19	0.05	0.32	0.42	0.25
Queue Length 95th (ft)	1	0	0	4	0	50	24
Control Delay (s)	10.6	0.0	0.0	1.4	0.0	23.4	24.5
Lane LOS	B			A		C	C
Approach Delay (s)	0.1			0.7		23.4	24.5
Approach LOS						C	C

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	71.1%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	600	230	20	830	165	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.96	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1527	1444	1845	1770	1562
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1527	1444	1845	1770	1562
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.68	0.68
Adj. Flow (vph)	667	256	22	922	243	51
RTOR Reduction (vph)	0	55	0	0	0	12
Lane Group Flow (vph)	667	201	22	922	243	39
Confl. Peds. (#/hr)		7				1
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	2%	2%	25%	3%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	40.8	40.8	1.9	46.7	15.6	15.6
Effective Green, g (s)	40.8	40.8	1.9	46.7	15.6	15.6
Actuated g/C Ratio	0.58	0.58	0.03	0.66	0.22	0.22
Clearance Time (s)	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
Lane Grp Cap (vph)	2054	886	39	1226	393	347
v/s Ratio Prot	0.19		0.02	c0.50	c0.14	
v/s Ratio Perm		0.13				0.02
v/c Ratio	0.32	0.23	0.56	0.75	0.62	0.11
Uniform Delay, d1	7.6	7.1	33.8	7.9	24.7	21.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1	17.3	2.7	2.9	0.1
Delay (s)	7.7	7.3	51.1	10.6	27.6	22.0
Level of Service	A	A	D	B	C	C
Approach Delay (s)	7.6			11.5	26.6	
Approach LOS	A			B	C	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	590	45	60	650	200	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1549	1770	1827	1719	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1549	1770	1827	1719	1583
Peak-hour factor, PHF	0.92	0.92	0.90	0.90	0.90	0.90
Adj. Flow (vph)	641	49	67	722	222	217
RTOR Reduction (vph)	0	28	0	0	0	162
Lane Group Flow (vph)	641	21	67	722	222	55
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	2%	2%	2%	4%	5%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	21.2	21.2	4.6	29.8	12.8	12.8
Effective Green, g (s)	21.2	21.2	4.6	29.8	12.8	12.8
Actuated g/C Ratio	0.42	0.42	0.09	0.59	0.25	0.25
Clearance Time (s)	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
Lane Grp Cap (vph)	1483	649	161	1076	435	400
v/s Ratio Prot	0.18		0.04	c0.40	c0.13	
v/s Ratio Perm		0.01				0.03
v/c Ratio	0.43	0.03	0.42	0.67	0.51	0.14
Uniform Delay, d1	10.4	8.7	21.7	7.1	16.2	14.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	1.7	1.7	1.0	0.2
Delay (s)	10.6	8.7	23.5	8.7	17.2	14.8
Level of Service	B	A	C	A	B	B
Approach Delay (s)	10.5			10.0	16.0	
Approach LOS	B			A	B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	50.6	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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	25	365	380	750	900	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	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
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1703	1845	3539	1481
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1703	1845	3539	1481
Peak-hour factor, PHF	0.93	0.93	0.90	0.90	0.90	0.90
Adj. Flow (vph)	27	392	422	833	1000	67
RTOR Reduction (vph)	0	345	0	0	0	41
Lane Group Flow (vph)	27	47	422	833	1000	26
Confl. Peds. (#/hr)						8
Confl. Bikes (#/hr)					5	
Heavy Vehicles (%)	2%	2%	6%	3%	2%	5%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	8.5	8.5	22.7	53.8	27.1	27.1
Effective Green, g (s)	8.5	8.5	22.7	53.8	27.1	27.1
Actuated g/C Ratio	0.12	0.12	0.32	0.77	0.39	0.39
Clearance Time (s)	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
Lane Grp Cap (vph)	214	191	550	1412	1364	571
v/s Ratio Prot	0.02		c0.25	0.45	c0.28	
v/s Ratio Perm		c0.03				0.02
v/c Ratio	0.13	0.25	0.77	0.59	0.73	0.05
Uniform Delay, d1	27.6	28.0	21.4	3.5	18.5	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.7	6.3	0.6	2.1	0.0
Delay (s)	27.9	28.7	27.8	4.2	20.6	13.5
Level of Service	C	C	C	A	C	B
Approach Delay (s)	28.6			12.1	20.1	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	12.0
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)	45	25	250	15	25	20	565	1195	20	65	1155	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.99		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		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1667	1511	1530	1668		1752	3458		1770	3539	1466
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1667	1511	1530	1668		1752	3458		1770	3539	1466
Peak-hour factor, PHF	0.84	0.84	0.84	0.82	0.82	0.82	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	54	30	298	18	30	24	628	1328	22	72	1283	72
RTOR Reduction (vph)	0	0	262	0	22	0	0	1	0	0	0	47
Lane Group Flow (vph)	54	30	36	18	32	0	628	1349	0	72	1283	25
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			3		7	6						8
Heavy Vehicles (%)	2%	14%	5%	18%	5%	5%	3%	4%	13%	2%	2%	7%
Turn Type	Prot		Perm	Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	3.6	10.0	10.0	1.5	7.9		26.2	50.6		4.7	29.1	29.1
Effective Green, g (s)	3.6	10.0	10.0	1.5	7.9		26.2	50.6		4.7	29.1	29.1
Actuated g/C Ratio	0.04	0.12	0.12	0.02	0.10		0.32	0.61		0.06	0.35	0.35
Clearance Time (s)	4.0	4.0	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	3.0	3.0
Lane Grp Cap (vph)	77	201	182	28	159		554	2113		100	1244	515
v/s Ratio Prot	c0.03	0.02		0.01	0.02		c0.36	0.39		0.04	c0.36	
v/s Ratio Perm			c0.02									0.02
v/c Ratio	0.70	0.15	0.20	0.64	0.20		1.13	0.64		0.72	1.03	0.05
Uniform Delay, d1	39.1	32.6	32.8	40.4	34.5		28.3	10.3		38.4	26.8	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	25.0	0.3	0.5	40.9	0.6		80.7	0.6		21.9	33.9	0.0
Delay (s)	64.1	32.9	33.3	81.3	35.2		109.0	10.9		60.3	60.8	17.8
Level of Service	E	C	C	F	D		F	B		E	E	B
Approach Delay (s)		37.6			46.7			42.0			58.6	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	47.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.4%	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)	505	150	105	20	55	355	15	1060	75	165	290	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3438	1488	1770	1863	1556	1770	3471	1560	1736	3438	1533
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3438	1488	1770	1863	1556	1770	3471	1560	1736	3438	1533
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	532	158	111	22	61	394	17	1178	83	183	322	472
RTOR Reduction (vph)	0	0	81	0	0	123	0	0	11	0	0	287
Lane Group Flow (vph)	532	158	30	22	61	272	17	1178	72	183	322	185
Confl. Peds. (#/hr)			2						1			
Confl. Bikes (#/hr)					1	3			2		2	1
Heavy Vehicles (%)	2%	5%	7%	2%	2%	2%	2%	4%	2%	4%	5%	4%
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	21.8	21.8	21.8	10.0	10.0	10.0	0.8	26.2	26.2	6.0	31.4	31.4
Effective Green, g (s)	21.8	21.8	21.8	10.0	10.0	10.0	0.8	26.2	26.2	6.0	31.4	31.4
Actuated g/C Ratio	0.27	0.27	0.27	0.12	0.12	0.12	0.01	0.33	0.33	0.08	0.39	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	482	937	405	221	233	195	18	1137	511	130	1349	602
v/s Ratio Prot	c0.30	0.05		0.01	0.03		0.01	c0.34		c0.11	0.09	
v/s Ratio Perm			0.02			c0.17			0.05			0.12
v/c Ratio	1.10	0.17	0.07	0.10	0.26	1.39	0.94	1.04	0.14	1.41	0.24	0.31
Uniform Delay, d1	29.1	22.2	21.6	31.0	31.7	35.0	39.6	26.9	19.0	37.0	16.3	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	72.3	0.4	0.4	0.2	0.6	204.8	183.9	36.5	0.1	222.8	0.1	0.3
Delay (s)	101.4	22.6	22.0	31.2	32.3	239.8	223.5	63.4	19.1	259.8	16.4	17.1
Level of Service	F	C	C	C	C	F	F	E	B	F	B	B
Approach Delay (s)		74.9			203.6			62.6			62.3	
Approach LOS		E			F			E			E	

Intersection Summary			
HCM Average Control Delay	84.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	80	30	550	35	10	695
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.93	0.93
Hourly flow rate (vph)	87	33	598	38	11	747
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		7				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1367	598			636	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1367	598			636	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	46	94			99	
cM capacity (veh/h)	160	502			948	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	120	598	38	11	747
Volume Left	87	0	0	11	0
Volume Right	33	0	38	0	0
cSH	220	1700	1700	948	1700
Volume to Capacity	0.54	0.35	0.02	0.01	0.44
Queue Length 95th (ft)	72	0	0	1	0
Control Delay (s)	40.8	0.0	0.0	8.8	0.0
Lane LOS	E			A	
Approach Delay (s)	40.8	0.0		0.1	
Approach LOS	E				

Intersection Summary				
Average Delay	3.3			
Intersection Capacity Utilization	47.7%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	5	30	90	0	40	120	515	100	30	695	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	6	35	98	0	43	130	560	109	33	755	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								623				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	1668	1777	783	1734	1750	614	810			668		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1683	1801	783	1754	1771	539	810			598		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	34	90	91	0	100	91	84			96		
cM capacity (veh/h)	54	60	394	44	62	500	816			902		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	35	41	98	43	130	668	33	810
Volume Left	35	0	98	0	130	0	33	0
Volume Right	0	35	0	43	0	109	0	54
cSH	54	218	44	500	816	1700	902	1700
Volume to Capacity	0.66	0.19	2.21	0.09	0.16	0.39	0.04	0.48
Queue Length 95th (ft)	67	17	257	7	14	0	3	0
Control Delay (s)	155.3	25.3	752.4	12.9	10.2	0.0	9.1	0.0
Lane LOS	F	D	F	B	B		A	
Approach Delay (s)	85.3		524.9		1.7		0.4	
Approach LOS	F		F					

Intersection Summary				
Average Delay	44.3			
Intersection Capacity Utilization	67.9%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	5	10	190	5	150	20	470	90	70	505	120
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	33	6	11	211	6	167	22	522	100	78	561	133
Pedestrians					12							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1519	1462	628	1359	1479	584	694			634		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1519	1462	628	1359	1479	584	694			634		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	42	95	98	0	95	67	98			92		
cM capacity (veh/h)	57	114	483	107	111	506	901			930		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	33	17	211	172	22	622	78	694
Volume Left	33	0	211	0	22	0	78	0
Volume Right	0	11	0	167	0	100	0	133
cSH	57	232	107	454	901	1700	930	1700
Volume to Capacity	0.58	0.07	1.98	0.38	0.02	0.37	0.08	0.41
Queue Length 95th (ft)	59	6	439	44	2	0	7	0
Control Delay (s)	132.8	21.7	537.9	17.7	9.1	0.0	9.2	0.0
Lane LOS	F	C	F	C	A		A	
Approach Delay (s)	95.8		304.2		0.3		0.9	
Approach LOS	F		F					

Intersection Summary				
Average Delay	66.1			
Intersection Capacity Utilization	64.4%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	20	65	55	450	410	50
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.79	0.79	0.74	0.74	0.70	0.70
Hourly flow rate (vph)	25	82	74	608	586	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)					656	
pX, platoon unblocked	0.82	0.82	0.82			
vC, conflicting volume	1378	621	657			
vC1, stage 1 conf vol	621					
vC2, stage 2 conf vol	757					
vCu, unblocked vol	1352	431	475			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	84	92			
cM capacity (veh/h)	346	510	890			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	108	74	608	657
Volume Left	25	74	0	0
Volume Right	82	0	0	71
cSH	459	890	1700	1700
Volume to Capacity	0.23	0.08	0.36	0.39
Queue Length 95th (ft)	23	7	0	0
Control Delay (s)	15.2	9.4	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	15.2	1.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	170	110	335	25	75	380
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.91	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1448	1821		1719	1845
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1448	1821		1719	1845
Peak-hour factor, PHF	0.70	0.70	0.83	0.83	0.90	0.90
Adj. Flow (vph)	243	157	404	30	83	422
RTOR Reduction (vph)	0	119	3	0	0	0
Lane Group Flow (vph)	243	38	431	0	83	422
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)		43		18		8
Heavy Vehicles (%)	2%	2%	3%	4%	5%	3%
Turn Type		Perm			Prot	
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	12.9	12.9	17.4		4.5	25.9
Effective Green, g (s)	12.9	12.9	17.4		4.5	25.9
Actuated g/C Ratio	0.24	0.24	0.33		0.09	0.49
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	432	353	599		146	903
v/s Ratio Prot	c0.14		c0.24		0.05	c0.23
v/s Ratio Perm		0.03				
v/c Ratio	0.56	0.11	0.72		0.57	0.47
Uniform Delay, d1	17.5	15.5	15.6		23.3	8.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.7	0.1	4.1		5.0	0.4
Delay (s)	19.2	15.7	19.7		28.3	9.3
Level of Service	B	B	B		C	A
Approach Delay (s)	17.8		19.7			12.4
Approach LOS	B		B			B

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	52.9	Sum of lost time (s)	18.1
Intersection Capacity Utilization	42.7%	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)	50	45	115	45	200	50	105	235	60	10	395	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	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	0.95		1.00	0.91	1.00	1.00	0.97	1.00	1.00	0.95
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	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1759	1502		1844	1420	1770	1863	1443	1770	1863	1492
Flt Permitted		0.56	1.00		0.92	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1003	1502		1710	1420	1770	1863	1443	1770	1863	1492
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.82	0.82	0.82	0.93	0.93	0.93
Adj. Flow (vph)	54	49	125	51	227	57	128	287	73	11	425	194
RTOR Reduction (vph)	0	0	100	0	0	41	0	0	34	0	0	110
Lane Group Flow (vph)	0	103	25	0	278	16	128	287	39	11	425	84
Confl. Peds. (#/hr)	2		5	5		2			5			9
Confl. Bikes (#/hr)			13			34		3	11		11	18
Heavy Vehicles (%)	8%	2%	2%	2%	2%	4%	2%	2%	8%	2%	2%	3%
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		9.7	9.7		9.7	9.7	5.9	26.2	26.2	0.6	20.9	20.9
Effective Green, g (s)		9.7	9.7		9.7	9.7	5.9	26.2	26.2	0.6	20.9	20.9
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.12	0.54	0.54	0.01	0.43	0.43
Clearance Time (s)		4.0	4.0		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	3.0	3.0
Lane Grp Cap (vph)		201	300		342	284	215	1006	780	22	803	643
v/s Ratio Prot							c0.07	0.15		0.01	c0.23	
v/s Ratio Perm		0.10	0.02		c0.16	0.01			0.03			0.06
v/c Ratio		0.51	0.08		0.81	0.06	0.60	0.29	0.05	0.50	0.53	0.13
Uniform Delay, d1		17.3	15.8		18.5	15.7	20.2	6.1	5.3	23.8	10.2	8.3
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.2	0.1		13.7	0.1	4.4	0.2	0.0	16.8	0.6	0.1
Delay (s)		19.5	15.9		32.2	15.8	24.5	6.2	5.3	40.6	10.8	8.4
Level of Service		B	B		C	B	C	A	A	D	B	A
Approach Delay (s)		17.5			29.4			10.9			10.6	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	48.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.4%	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)	50	235	135	110	320	65	265	270	140	135	325	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.87	1.00	1.00	0.94	1.00	1.00	0.96	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	3505	1327	1719	3471	1470	1770	1863	1525	1770	1863	1456
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	3505	1327	1719	3471	1470	1770	1863	1525	1770	1863	1456
Peak-hour factor, PHF	0.82	0.82	0.82	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89
Adj. Flow (vph)	61	287	165	128	372	76	331	338	175	152	365	185
RTOR Reduction (vph)	0	0	81	0	0	24	0	0	34	0	0	33
Lane Group Flow (vph)	61	287	84	128	372	52	331	338	141	152	365	152
Confl. Peds. (#/hr)			41			11			16			21
Confl. Bikes (#/hr)			3		1	8			1		1	25
Heavy Vehicles (%)	7%	3%	6%	5%	4%	3%	2%	2%	2%	2%	2%	4%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.1	13.7	13.7	8.6	16.2	16.2	21.1	31.2	31.2	12.7	22.8	22.8
Effective Green, g (s)	6.1	13.7	13.7	8.6	16.2	16.2	21.1	31.2	31.2	12.7	22.8	22.8
Actuated g/C Ratio	0.07	0.17	0.17	0.10	0.20	0.20	0.26	0.38	0.38	0.15	0.28	0.28
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	125	584	221	180	684	290	454	707	579	273	517	404
v/s Ratio Prot	0.04	0.08		c0.07	c0.11		c0.19	0.18		0.09	c0.20	
v/s Ratio Perm			0.06			0.04			0.09			0.10
v/c Ratio	0.49	0.49	0.38	0.71	0.54	0.18	0.73	0.48	0.24	0.56	0.71	0.38
Uniform Delay, d1	36.5	31.1	30.5	35.6	29.7	27.5	27.9	19.3	17.4	32.1	26.7	24.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.7	1.1	12.4	0.9	0.3	5.8	0.5	0.2	2.5	4.4	0.6
Delay (s)	39.5	31.7	31.6	48.0	30.6	27.8	33.7	19.8	17.7	34.6	31.1	24.6
Level of Service	D	C	C	D	C	C	C	B	B	C	C	C
Approach Delay (s)		32.6			34.1			24.8			30.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	82.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.8%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	45	50	15	25	60	20	20	120	95	10	200	35
Peak Hour Factor	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83	0.65	0.65	0.65
Hourly flow rate (vph)	60	67	20	36	87	29	24	145	114	15	308	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	147	152	283	377
Volume Left (vph)	60	36	24	15
Volume Right (vph)	20	29	114	54
Hadj (s)	0.03	-0.03	-0.19	-0.04
Departure Headway (s)	6.0	5.9	5.2	5.2
Degree Utilization, x	0.24	0.25	0.41	0.55
Capacity (veh/h)	517	534	638	657
Control Delay (s)	10.9	10.9	11.8	14.3
Approach Delay (s)	10.9	10.9	11.8	14.3
Approach LOS	B	B	B	B

Intersection Summary			
Delay	12.5		
HCM Level of Service	B		
Intersection Capacity Utilization	38.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	220	90	40	455	15	65	60	45	35	140	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	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		1.00	1.00	0.95	1.00	0.98	
Flpb, ped/bikes	0.99	1.00		1.00	1.00		1.00	1.00	1.00	0.99	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1755	1742		1762	1848		1761	1863	1504	1752	1766	
Flt Permitted	0.28	1.00		0.49	1.00		0.51	1.00	1.00	0.71	1.00	
Satd. Flow (perm)	521	1742		913	1848		946	1863	1504	1317	1766	
Peak-hour factor, PHF	0.83	0.83	0.83	0.75	0.75	0.75	0.91	0.91	0.91	0.67	0.67	0.67
Adj. Flow (vph)	12	265	108	53	607	20	71	66	49	52	209	67
RTOR Reduction (vph)	0	29	0	0	2	0	0	0	33	0	23	0
Lane Group Flow (vph)	12	344	0	53	625	0	71	66	16	52	253	0
Confl. Peds. (#/hr)	18		5	5		18	5		7	7		5
Confl. Bikes (#/hr)		7	70		2	82		12	17		10	33
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	26.0	26.0		26.0	26.0		16.0	16.0	16.0	16.0	16.0	
Effective Green, g (s)	26.0	26.0		26.0	26.0		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32	0.32	0.32	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	271	906		475	961		303	596	481	421	565	
v/s Ratio Prot		0.20			c0.34			0.04			c0.14	
v/s Ratio Perm	0.02			0.06			0.08		0.01	0.04		
v/c Ratio	0.04	0.38		0.11	0.65		0.23	0.11	0.03	0.12	0.45	
Uniform Delay, d1	5.9	7.2		6.1	8.7		12.5	12.0	11.7	12.0	13.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	1.2		0.5	3.4		1.8	0.4	0.1	0.6	2.6	
Delay (s)	6.2	8.4		6.6	12.1		14.3	12.4	11.8	12.6	16.0	
Level of Service	A	A		A	B		B	B	B	B	B	
Approach Delay (s)		8.3			11.7			13.0			15.5	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.5%	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)	45	325	60	50	655	45	55	70	40	55	140	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95	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	0.95	1.00	1.00	0.97	1.00	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	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1719		1641	3539	1505	1770	1863	1369	1770	1863	1453
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1719		1641	3539	1505	1770	1863	1369	1770	1863	1453
Peak-hour factor, PHF	0.78	0.78	0.78	0.75	0.75	0.75	0.65	0.65	0.65	0.78	0.78	0.78
Adj. Flow (vph)	58	417	77	67	873	60	85	108	62	71	179	192
RTOR Reduction (vph)	0	8	0	0	0	27	0	0	49	0	0	154
Lane Group Flow (vph)	58	486	0	67	873	33	85	108	13	71	179	38
Confl. Peds. (#/hr)			16			9			3			13
Confl. Bikes (#/hr)					3	13			17		17	50
Heavy Vehicles (%)	2%	8%	2%	10%	2%	2%	2%	2%	14%	2%	2%	2%
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	3.3	26.1		4.2	27.0	27.0	6.4	13.5	13.5	6.0	13.1	13.1
Effective Green, g (s)	3.3	26.1		4.2	27.0	27.0	6.4	13.5	13.5	6.0	13.1	13.1
Actuated g/C Ratio	0.05	0.40		0.06	0.41	0.41	0.10	0.21	0.21	0.09	0.20	0.20
Clearance Time (s)	4.0	4.0		4.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	89	682		105	1452	618	172	382	281	161	371	289
v/s Ratio Prot	0.03	c0.28		c0.04	0.25		c0.05	0.06		0.04	c0.10	
v/s Ratio Perm						0.02			0.01			0.03
v/c Ratio	0.65	0.71		0.64	0.60	0.05	0.49	0.28	0.05	0.44	0.48	0.13
Uniform Delay, d1	30.7	16.7		30.1	15.2	11.7	28.2	22.1	21.0	28.3	23.3	21.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.8	3.5		12.0	0.7	0.0	2.2	0.4	0.1	1.9	1.0	0.2
Delay (s)	46.5	20.2		42.1	15.9	11.7	30.4	22.5	21.0	30.2	24.3	21.9
Level of Service	D	C		D	B	B	C	C	C	C	C	C
Approach Delay (s)		23.0			17.4			24.8			24.2	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	65.8	Sum of lost time (s)	16.0
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)	95	560	10	305	630	350	15	25	265	275	70	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.96	1.00	1.00	0.97	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3505	1532	3433	3539	1524	1671	1863	1537	1770	1636	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3505	1532	3433	3539	1524	1671	1863	1537	1770	1636	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	106	622	11	339	700	389	17	28	298	306	78	111
RTOR Reduction (vph)	0	0	5	0	0	101	0	0	242	0	45	0
Lane Group Flow (vph)	106	622	6	339	700	288	17	28	56	306	144	0
Confl. Peds. (#/hr)			8			4			8			17
Confl. Bikes (#/hr)		2	5			4		2	2			
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	8%	2%	2%	2%	2%	4%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.1	26.3	26.3	23.9	40.1	40.1	2.0	20.7	20.7	23.1	41.8	
Effective Green, g (s)	10.1	26.3	26.3	23.9	40.1	40.1	2.0	20.7	20.7	23.1	41.8	
Actuated g/C Ratio	0.09	0.24	0.24	0.22	0.36	0.36	0.02	0.19	0.19	0.21	0.38	
Clearance Time (s)	4.0	4.0	4.0	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	3.0	3.0	3.0	
Lane Grp Cap (vph)	163	838	366	746	1290	556	30	351	289	372	622	
v/s Ratio Prot	0.06	c0.18		0.10	c0.20		0.01	0.02		c0.17	c0.09	
v/s Ratio Perm			0.00			0.19			0.04			
v/c Ratio	0.65	0.74	0.02	0.45	0.54	0.52	0.57	0.08	0.19	0.82	0.23	
Uniform Delay, d1	48.2	38.7	32.0	37.4	27.7	27.4	53.6	36.8	37.6	41.5	23.2	
Progression Factor	1.00	1.00	1.00	0.75	0.66	0.61	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.9	3.6	0.0	0.4	1.4	2.9	22.3	0.4	1.5	13.6	0.9	
Delay (s)	57.2	42.3	32.0	28.4	19.8	19.6	75.8	37.2	39.1	55.1	24.0	
Level of Service	E	D	C	C	B	B	E	D	D	E	C	
Approach Delay (s)		44.3			21.8			40.8			43.3	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	33.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	1055	1220	185	245	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.75	0.75
Adj. Flow (vph)	44	1172	1284	195	327	80
RTOR Reduction (vph)	0	0	0	23	0	62
Lane Group Flow (vph)	44	1172	1284	172	327	18
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	5.6	76.6	67.0	67.0	25.4	25.4
Effective Green, g (s)	5.6	76.6	67.0	67.0	25.4	25.4
Actuated g/C Ratio	0.05	0.70	0.61	0.61	0.23	0.23
Clearance Time (s)	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
Lane Grp Cap (vph)	90	2464	2156	964	409	366
v/s Ratio Prot	0.02	c0.33	c0.36		c0.18	
v/s Ratio Perm				0.11		0.01
v/c Ratio	0.49	0.48	0.60	0.18	0.80	0.05
Uniform Delay, d1	50.8	7.6	13.2	9.4	39.9	32.9
Progression Factor	1.06	0.51	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.3	0.5	1.2	0.4	10.5	0.1
Delay (s)	57.1	4.4	14.4	9.8	50.4	33.0
Level of Service	E	A	B	A	D	C
Approach Delay (s)		6.3	13.8		47.0	
Approach LOS		A	B		D	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.0%	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)	160	1060	140	35	1075	95	220	120	45	145	95	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.95	1.00	1.00	0.91	1.00	1.00	0.90	1.00	1.00	0.89
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1507	1770	3539	1435	1770	1863	1427	1770	1863	1393
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1507	1770	3539	1435	1770	1863	1427	1770	1863	1393
Peak-hour factor, PHF	0.91	0.91	0.91	0.79	0.79	0.79	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	176	1165	154	44	1361	120	244	133	50	163	107	208
RTOR Reduction (vph)	0	0	15	0	0	11	0	0	15	0	0	130
Lane Group Flow (vph)	176	1165	139	44	1361	109	244	133	35	163	107	78
Confl. Peds. (#/hr)			8			21			12			39
Confl. Bikes (#/hr)		1	3			7		2	49		48	16
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.6	54.5	54.5	4.0	45.9	45.9	17.4	17.4	17.4	13.8	13.8	13.8
Effective Green, g (s)	12.6	54.5	54.5	4.0	45.9	45.9	17.4	17.4	17.4	13.8	13.8	13.8
Actuated g/C Ratio	0.12	0.52	0.52	0.04	0.43	0.43	0.16	0.16	0.16	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	211	1825	777	67	1537	623	291	307	235	231	243	182
v/s Ratio Prot	c0.10	0.33		0.02	c0.38		c0.14	0.07		c0.09	0.06	
v/s Ratio Perm			0.09			0.08			0.02			0.06
v/c Ratio	0.83	0.64	0.18	0.66	0.89	0.18	0.84	0.43	0.15	0.71	0.44	0.43
Uniform Delay, d1	45.5	18.5	13.7	50.2	27.5	18.3	42.8	39.7	37.8	44.0	42.4	42.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.7	0.7	0.1	20.8	6.5	0.1	18.6	1.0	0.3	9.4	1.3	1.6
Delay (s)	69.2	19.2	13.8	71.0	34.0	18.4	61.4	40.7	38.1	53.4	43.7	44.0
Level of Service	E	B	B	E	C	B	E	D	D	D	D	D
Approach Delay (s)		24.6			33.8			52.2			47.1	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	33.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	105.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.4%	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)	90	980	130	110	750	95	245	205	135	95	165	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.90	1.00	1.00	0.87	1.00	1.00	0.91
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3539	1514	1770	3539	1427	1752	1827	1378	1770	3406	1433
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	3539	1514	1770	3539	1427	1752	1827	1378	1770	3406	1433
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.91	0.91	0.91	0.74	0.74	0.74
Adj. Flow (vph)	95	1032	137	122	833	106	269	225	148	128	223	95
RTOR Reduction (vph)	0	0	16	0	0	43	0	0	59	0	0	54
Lane Group Flow (vph)	95	1032	121	122	833	63	269	225	89	128	223	41
Confl. Peds. (#/hr)			18			24			29			26
Confl. Bikes (#/hr)		1	5		1	16		1	73		71	27
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	3%	4%	2%	2%	6%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	32.3	32.3	10.0	34.3	34.3	17.7	18.6	18.6	11.2	12.1	12.1
Effective Green, g (s)	8.0	32.3	32.3	10.0	34.3	34.3	17.7	18.6	18.6	11.2	12.1	12.1
Actuated g/C Ratio	0.09	0.37	0.37	0.11	0.39	0.39	0.20	0.21	0.21	0.13	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	158	1297	555	201	1378	556	352	386	291	225	468	197
v/s Ratio Prot	0.05	c0.29		c0.07	0.24		c0.15	c0.12		0.07	0.07	
v/s Ratio Perm			0.08			0.04			0.06			0.03
v/c Ratio	0.60	0.80	0.22	0.61	0.60	0.11	0.76	0.58	0.31	0.57	0.48	0.21
Uniform Delay, d1	38.5	24.9	19.2	37.2	21.5	17.2	33.2	31.3	29.3	36.2	35.1	33.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.3	3.5	0.2	5.1	0.8	0.1	9.5	2.2	0.6	3.3	0.8	0.5
Delay (s)	44.8	28.4	19.4	42.3	22.2	17.3	42.7	33.5	29.9	39.5	35.8	34.3
Level of Service	D	C	B	D	C	B	D	C	C	D	D	C
Approach Delay (s)		28.7			24.0			36.5			36.5	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	29.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	88.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1135	135	290	645	235	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.95	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	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1501	1770	3539	1770	1551
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1501	1770	3539	1770	1551
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.90	0.90
Adj. Flow (vph)	1261	150	309	686	261	261
RTOR Reduction (vph)	0	15	0	0	0	217
Lane Group Flow (vph)	1261	135	309	686	261	44
Confl. Peds. (#/hr)		8			14	5
Confl. Bikes (#/hr)	1	14				
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	30.3	30.3	15.2	49.5	13.1	13.1
Effective Green, g (s)	30.3	30.3	15.2	49.5	13.1	13.1
Actuated g/C Ratio	0.39	0.39	0.20	0.64	0.17	0.17
Clearance Time (s)	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
Lane Grp Cap (vph)	1389	589	348	2269	300	263
v/s Ratio Prot	c0.36		c0.17	0.19	c0.15	
v/s Ratio Perm		0.09				0.03
v/c Ratio	0.91	0.23	0.89	0.30	0.87	0.17
Uniform Delay, d1	22.1	15.7	30.2	6.2	31.2	27.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	8.8	0.2	22.8	0.1	22.5	0.3
Delay (s)	31.0	15.9	53.0	6.2	53.7	27.7
Level of Service	C	B	D	A	D	C
Approach Delay (s)	29.4			20.8	40.7	
Approach LOS	C			C	D	

Intersection Summary			
HCM Average Control Delay	28.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	18.6
Intersection Capacity Utilization	70.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	80	1290	830	290	165	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1502	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1502	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.90	0.90
Adj. Flow (vph)	89	1433	856	299	183	117
RTOR Reduction (vph)	0	0	0	27	0	93
Lane Group Flow (vph)	89	1433	856	272	183	24
Confl. Peds. (#/hr)				15		
Confl. Bikes (#/hr)			11			
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.7	40.0	28.3	28.3	13.9	13.9
Effective Green, g (s)	7.7	40.0	28.3	28.3	13.9	13.9
Actuated g/C Ratio	0.11	0.59	0.42	0.42	0.21	0.21
Clearance Time (s)	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
Lane Grp Cap (vph)	201	2091	1479	628	363	325
v/s Ratio Prot	0.05	c0.40	0.24		c0.10	
v/s Ratio Perm				0.18		0.02
v/c Ratio	0.44	0.69	0.58	0.43	0.50	0.07
Uniform Delay, d1	28.0	9.5	15.1	14.0	23.8	21.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	0.9	0.6	0.5	1.1	0.1
Delay (s)	29.6	10.5	15.7	14.5	24.9	21.8
Level of Service	C	B	B	B	C	C
Approach Delay (s)		11.6	15.4		23.7	
Approach LOS		B	B		C	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	67.7	Sum of lost time (s)	13.8
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)	70	1205	180	250	885	280	185	165	285	120	150	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.94	1.00	1.00	0.96	1.00	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	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1496	3433	3539	1496	1770	1863	1517	1770	1863	1519
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1496	3433	3539	1496	1770	1863	1517	1770	1863	1519
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	78	1339	200	263	932	295	218	194	335	141	176	59
RTOR Reduction (vph)	0	0	23	0	0	25	0	0	130	0	0	20
Lane Group Flow (vph)	78	1339	177	263	932	270	218	194	205	141	176	39
Confl. Peds. (#/hr)			10			9			14			10
Confl. Bikes (#/hr)		1	5		1	9		1	3		2	7
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.2	44.6	44.6	10.7	48.1	48.1	15.7	19.5	19.5	11.3	15.1	15.1
Effective Green, g (s)	7.2	44.6	44.6	10.7	48.1	48.1	15.7	19.5	19.5	11.3	15.1	15.1
Actuated g/C Ratio	0.07	0.44	0.44	0.10	0.47	0.47	0.15	0.19	0.19	0.11	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	125	1546	653	360	1667	705	272	356	290	196	276	225
v/s Ratio Prot	0.04	c0.38		c0.08	c0.26		c0.12	0.10		0.08	0.09	
v/s Ratio Perm			0.12			0.18			c0.13			0.03
v/c Ratio	0.62	0.87	0.27	0.73	0.56	0.38	0.80	0.54	0.71	0.72	0.64	0.17
Uniform Delay, d1	46.1	26.0	18.4	44.3	19.4	17.4	41.7	37.3	38.6	43.9	40.9	38.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.3	5.4	0.2	7.4	0.4	0.3	15.5	1.7	7.6	11.9	4.8	0.4
Delay (s)	55.5	31.4	18.6	51.7	19.8	17.8	57.2	39.0	46.2	55.8	45.7	38.4
Level of Service	E	C	B	D	B	B	E	D	D	E	D	D
Approach Delay (s)		31.0			25.0			47.5			48.3	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.5%	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	1475	135	75	1295	0	120	0	120	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0	4.0			
Lane Util. Factor		0.95	1.00	1.00	0.95			1.00	1.00			
Frpb, ped/bikes		1.00	0.93	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	0.85	1.00	1.00			1.00	0.85			
Flt Protected		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (prot)		3539	1465	1770	3539			1770	1583			
Flt Permitted		1.00	1.00	0.95	1.00			0.95	1.00			
Satd. Flow (perm)		3539	1465	1770	3539			1770	1583			
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1639	150	82	1423	0	133	0	133	0	0	0
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	70	0	0	0
Lane Group Flow (vph)	0	1639	139	82	1423	0	0	133	63	0	0	0
Confl. Peds. (#/hr)			26									
Confl. Bikes (#/hr)								1			1	
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)		41.9	41.9	5.0	50.9			9.7	9.7			
Effective Green, g (s)		41.9	41.9	5.0	50.9			9.7	9.7			
Actuated g/C Ratio		0.61	0.61	0.07	0.74			0.14	0.14			
Clearance Time (s)		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			
Lane Grp Cap (vph)		2162	895	129	2626			250	224			
v/s Ratio Prot		c0.46		0.05	c0.40			c0.08				
v/s Ratio Perm			0.09						0.04			
v/c Ratio		0.76	0.15	0.64	0.54			0.53	0.28			
Uniform Delay, d1		9.7	5.7	30.9	3.8			27.3	26.3			
Progression Factor		1.00	1.00	1.00	1.00			1.00	1.00			
Incremental Delay, d2		1.6	0.1	9.8	0.2			2.2	0.7			
Delay (s)		11.2	5.8	40.7	4.0			29.5	27.0			
Level of Service		B	A	D	A			C	C			
Approach Delay (s)		10.8			6.0			28.3			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	12.0
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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	265	20	15	210	170	55	205	20	180	160	40
Peak Hour Factor	0.76	0.76	0.76	0.88	0.88	0.88	0.72	0.72	0.72	0.83	0.83	0.83
Hourly flow rate (vph)	39	349	26	17	239	193	76	285	28	217	193	48

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	39	375	17	432	361	28	410	48
Volume Left (vph)	39	0	17	0	76	0	217	0
Volume Right (vph)	0	26	0	193	0	28	0	48
Hadj (s)	0.58	-0.02	0.53	-0.28	0.17	-0.67	0.31	-0.67
Departure Headway (s)	9.7	9.2	9.5	8.7	9.4	8.6	9.3	8.3
Degree Utilization, x	0.11	0.95	0.04	1.04	0.94	0.07	1.05	0.11
Capacity (veh/h)	364	388	374	418	378	413	389	426
Control Delay (s)	12.7	64.2	11.7	84.9	62.0	11.0	90.4	11.2
Approach Delay (s)	59.3		82.1		58.4		82.0	
Approach LOS	F		F		F		F	

Intersection Summary				
Delay	71.2			
HCM Level of Service	F			
Intersection Capacity Utilization	67.1%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	270	275	50	185	265	90
Peak Hour Factor	0.92	0.92	0.86	0.86	0.82	0.82
Hourly flow rate (vph)	293	299	58	215	323	110

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total (vph)	293	299	58	215	433
Volume Left (vph)	0	0	58	0	323
Volume Right (vph)	0	299	0	0	110
Hadj (s)	0.03	-0.67	0.53	0.03	0.03
Departure Headway (s)	6.5	5.8	7.4	6.9	6.0
Degree Utilization, x	0.53	0.48	0.12	0.41	0.72
Capacity (veh/h)	536	602	458	495	582
Control Delay (s)	15.4	12.8	10.2	13.4	22.7
Approach Delay (s)	14.1		12.7		22.7
Approach LOS	B		B		C

Intersection Summary			
Delay	16.7		
HCM Level of Service	C		
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	280	120	90	370	325	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1544	1770	1863	1863	1516
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1544	1770	1863	1863	1516
Peak-hour factor, PHF	0.90	0.90	0.80	0.80	0.90	0.90
Adj. Flow (vph)	311	133	112	462	361	233
RTOR Reduction (vph)	0	104	0	0	0	142
Lane Group Flow (vph)	311	29	112	462	361	91
Confl. Peds. (#/hr)	25	4				18
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	9.1	9.1	4.1	24.3	16.2	16.2
Effective Green, g (s)	9.1	9.1	4.1	24.3	16.2	16.2
Actuated g/C Ratio	0.22	0.22	0.10	0.59	0.39	0.39
Clearance Time (s)	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
Lane Grp Cap (vph)	389	339	175	1094	729	593
v/s Ratio Prot	c0.18		c0.06	0.25	c0.19	
v/s Ratio Perm		0.02				0.06
v/c Ratio	0.80	0.09	0.64	0.42	0.50	0.15
Uniform Delay, d1	15.3	12.8	17.9	4.7	9.5	8.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.0	0.1	7.7	0.3	0.5	0.1
Delay (s)	26.2	13.0	25.7	5.0	10.0	8.3
Level of Service	C	B	C	A	B	A
Approach Delay (s)	22.3			9.0	9.4	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	41.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	20	30	140	195	15	115
Peak Hour Factor	0.77	0.77	0.71	0.71	0.81	0.81
Hourly flow rate (vph)	26	39	197	275	19	142

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	65	472	19	142
Volume Left (vph)	26	0	19	0
Volume Right (vph)	39	275	0	0
Hadj (s)	-0.25	-0.32	0.53	0.03
Departure Headway (s)	5.0	4.0	5.5	5.0
Degree Utilization, x	0.09	0.53	0.03	0.20
Capacity (veh/h)	639	876	628	693
Control Delay (s)	8.5	11.5	7.5	8.1
Approach Delay (s)	8.5	11.5	8.0	
Approach LOS	A	B	A	

Intersection Summary			
Delay	10.4		
HCM Level of Service	B		
Intersection Capacity Utilization	30.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	365	10	15	385	35	10	65	55	30	45	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.93		1.00	0.93		1.00	0.90		1.00	0.95
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		0.99	1.00		0.98	1.00
Satd. Flow (prot)		1859	1479		1859	1462		1754	1431		1803	1508
Flt Permitted		0.98	1.00		0.98	1.00		0.97	1.00		0.89	1.00
Satd. Flow (perm)		1816	1479		1822	1462		1712	1431		1634	1508
Peak-hour factor, PHF	0.88	0.88	0.88	0.80	0.80	0.80	0.76	0.76	0.76	0.82	0.82	0.82
Adj. Flow (vph)	17	415	11	19	481	44	13	86	72	37	55	30
RTOR Reduction (vph)	0	0	7	0	0	26	0	0	43	0	0	18
Lane Group Flow (vph)	0	432	4	0	500	18	0	99	29	0	92	12
Confl. Peds. (#/hr)	2		2	2		2	5		2	2		5
Confl. Bikes (#/hr)		33	47		3	49		1	80		47	23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	11%	7%	2%	2%	4%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		726	592		729	585		685	572		654	603
v/s Ratio Prot												
v/s Ratio Perm		0.24	0.00		c0.27	0.01		c0.06	0.02		0.06	0.01
v/c Ratio		0.60	0.01		0.69	0.03		0.14	0.05		0.14	0.02
Uniform Delay, d1		9.4	7.2		9.9	7.3		7.6	7.3		7.6	7.3
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		3.6	0.0		5.2	0.1		0.4	0.2		0.5	0.1
Delay (s)		13.0	7.2		15.1	7.4		8.1	7.5		8.1	7.3
Level of Service		B	A		B	A		A	A		A	A
Approach Delay (s)		12.9			14.5			7.8			7.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.8%	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)	15	425	65	50	310	15	70	125	100	15	90	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.84	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	0.85	1.00	0.99			0.95			0.95	
Flt Protected		1.00	1.00	0.95	1.00			0.99			1.00	
Satd. Flow (prot)		1859	1338	1731	1843			1527			1740	
Flt Permitted		0.98	1.00	0.33	1.00			0.87			0.96	
Satd. Flow (perm)		1831	1338	606	1843			1351			1673	
Peak-hour factor, PHF	0.88	0.88	0.88	0.81	0.81	0.81	0.86	0.86	0.86	0.67	0.67	0.67
Adj. Flow (vph)	17	483	74	62	383	19	81	145	116	22	134	90
RTOR Reduction (vph)	0	0	36	0	3	0	0	37	0	0	41	0
Lane Group Flow (vph)	0	500	38	62	399	0	0	305	0	0	205	0
Confl. Peds. (#/hr)	5		3	3		5	3		7	7		3
Confl. Bikes (#/hr)		17	153		2	54		4	37		20	11
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	2%	4%	2%	2%	2%
Parking (#/hr)								1				
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		22.0	22.0	22.0	22.0			20.0			20.0	
Effective Green, g (s)		22.0	22.0	22.0	22.0			20.0			20.0	
Actuated g/C Ratio		0.44	0.44	0.44	0.44			0.40			0.40	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		806	589	267	811			540			669	
v/s Ratio Prot					0.22							
v/s Ratio Perm		c0.27	0.03	0.10				c0.23			0.12	
v/c Ratio		0.62	0.06	0.23	0.49			0.56			0.31	
Uniform Delay, d1		10.8	8.1	8.7	10.0			11.6			10.3	
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	
Incremental Delay, d2		3.6	0.2	2.0	2.1			4.2			1.2	
Delay (s)		14.4	8.3	10.8	12.1			15.9			11.4	
Level of Service		B	A	B	B			B			B	
Approach Delay (s)		13.6			11.9			15.9			11.4	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.1%	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)	25	350	160	45	385	120	40	415	125	145	305	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.95			0.98		1.00	1.00	0.88	1.00	1.00	0.90
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1697			1758		1770	1863	1393	1770	1863	1428
Flt Permitted		0.96			0.88		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1631			1559		1770	1863	1393	1770	1863	1428
Peak-hour factor, PHF	0.81	0.81	0.81	0.89	0.89	0.89	0.78	0.78	0.78	0.97	0.97	0.97
Adj. Flow (vph)	31	432	198	51	433	135	51	532	160	149	314	26
RTOR Reduction (vph)	0	14	0	0	9	0	0	0	22	0	0	6
Lane Group Flow (vph)	0	647	0	0	610	0	51	532	138	149	314	20
Confl. Peds. (#/hr)	13		10	10		13			19			19
Confl. Bikes (#/hr)		7	133		5	49		3	40		33	22
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		43.3			43.3		5.8	33.5	33.5	11.5	39.2	39.2
Effective Green, g (s)		43.3			43.3		5.8	33.5	33.5	11.5	39.2	39.2
Actuated g/C Ratio		0.43			0.43		0.06	0.33	0.33	0.11	0.39	0.39
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)		704			673		102	622	465	203	728	558
v/s Ratio Prot							0.03	c0.29		c0.08	0.17	
v/s Ratio Perm		c0.40			0.39				0.10			0.01
v/c Ratio		0.92			0.91		0.50	0.86	0.30	0.73	0.43	0.04
Uniform Delay, d1		26.8			26.6		45.8	31.1	24.7	42.9	22.4	18.9
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		16.9			15.8		3.8	11.1	0.4	12.9	0.4	0.0
Delay (s)		43.8			42.4		49.7	42.2	25.1	55.8	22.8	18.9
Level of Service		D			D		D	D	C	E	C	B
Approach Delay (s)		43.8			42.4			39.1			32.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM Average Control Delay	39.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.5%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	315	345	35	35	460	35	65	50	60	40	40	70
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.51	0.51	0.51	0.87	0.87	0.87
Hourly flow rate (vph)	350	383	39	39	511	39	127	98	118	46	46	80

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	350	422	589	225	118	92	80
Volume Left (vph)	350	0	39	127	0	46	0
Volume Right (vph)	0	39	39	0	118	0	80
Hadj (s)	0.53	-0.03	0.01	0.15	-0.57	0.28	-0.63
Departure Headway (s)	7.7	7.2	7.4	8.5	3.2	8.9	8.0
Degree Utilization, x	0.75	0.84	1.21	0.53	0.10	0.23	0.18
Capacity (veh/h)	459	497	491	409	1121	387	429
Control Delay (s)	29.3	36.2	136.4	20.6	6.6	13.3	11.5
Approach Delay (s)	33.1		136.4	15.8		12.5	
Approach LOS	D		F	C		B	

Intersection Summary			
Delay	60.5		
HCM Level of Service	F		
Intersection Capacity Utilization	71.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	810	55	55	575	70	50	210	70	110	280	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.98	1.00	
Frt		0.99			0.98		1.00	0.96		1.00	0.97	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3476			3461		1792	1555		1740	1566	
Flt Permitted		1.00			1.00		0.24	1.00		0.31	1.00	
Satd. Flow (perm)		3476			3461		450	1555		573	1566	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93
Adj. Flow (vph)	89	900	61	61	639	78	60	253	84	118	301	86
RTOR Reduction (vph)	0	5	0	0	9	0	0	13	0	0	12	0
Lane Group Flow (vph)	0	1045	0	0	769	0	60	324	0	118	375	0
Confl. Peds. (#/hr)	3		19	19		3	13		24	24		13
Confl. Bikes (#/hr)			13		3	2			38		38	19
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	5%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		32.0			21.0		25.0	25.0		25.0	25.0	
Effective Green, g (s)		32.0			21.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio		0.36			0.23		0.28	0.28		0.28	0.28	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1236			808		125	432		159	435	
v/s Ratio Prot		c0.30			c0.22			0.21			c0.24	
v/s Ratio Perm							0.13			0.21		
v/c Ratio		0.85			0.95		0.48	0.75		0.74	0.86	
Uniform Delay, d1		26.7			34.0		27.1	29.6		29.6	30.9	
Progression Factor		1.00			1.40		1.00	1.00		1.00	1.00	
Incremental Delay, d2		7.2			17.6		12.6	11.4		26.5	19.8	
Delay (s)		33.9			65.2		39.7	41.0		56.1	50.6	
Level of Service		C			E		D	D		E	D	
Approach Delay (s)		33.9			65.2			40.8			51.9	
Approach LOS		C			E			D			D	

Intersection Summary			
HCM Average Control Delay	47.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.9%	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)	35	745	220	80	520	65	95	170	55	35	70	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.98			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.97	1.00	
Frt		0.97			0.99		1.00	0.96		1.00	0.96	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3362			3450		1763	1553		1719	1561	
Flt Permitted		1.00			0.99		0.61	1.00		0.36	1.00	
Satd. Flow (perm)		3362			3450		1136	1553		650	1561	
Peak-hour factor, PHF	0.84	0.84	0.84	0.96	0.96	0.96	0.78	0.78	0.78	0.69	0.69	0.69
Adj. Flow (vph)	42	887	262	83	542	68	122	218	71	51	101	43
RTOR Reduction (vph)	0	29	0	0	9	0	0	13	0	0	17	0
Lane Group Flow (vph)	0	1162	0	0	684	0	122	276	0	51	127	0
Confl. Peds. (#/hr)	5		16	16		5	3		35	35		3
Confl. Bikes (#/hr)		3	9		3	9		1	24		21	14
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		34.0			21.0		23.0	23.0		23.0	23.0	
Effective Green, g (s)		34.0			21.0		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.38			0.23		0.26	0.26		0.26	0.26	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1270			805		290	397		166	399	
v/s Ratio Prot		c0.35			c0.20			c0.18			0.08	
v/s Ratio Perm							0.11			0.08		
v/c Ratio		0.92			0.85		0.42	0.70		0.31	0.32	
Uniform Delay, d1		26.6			33.0		27.9	30.3		27.1	27.1	
Progression Factor		0.26			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		7.9			10.9		4.4	9.7		4.7	2.1	
Delay (s)		14.8			43.9		32.4	40.0		31.8	29.2	
Level of Service		B			D		C	D		C	C	
Approach Delay (s)		14.8			43.9			37.8			29.9	
Approach LOS		B			D			D			C	

Intersection Summary			
HCM Average Control Delay	27.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
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 (veh/h)	235	1255	105	130	895	60	65	140	115	170	240	410
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.92	0.93	0.92	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	261	1394	117	140	962	65	70	152	124	185	261	446
Pedestrians		32			32			32				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		3			3			3				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		932			1318							
pX, platoon unblocked	0.96			0.72			0.74	0.74	0.72	0.74	0.74	0.96
vC, conflicting volume	1028			1426			3318	3256	761	2602	3223	546
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	945			814			3184	3100	0	2217	3056	443
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	62			75			0	0	83	0	0	15
cM capacity (veh/h)	693			567			0	4	739	0	4	526

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	261	697	697	117	140	642	386	222	124	446	446	
Volume Left	261	0	0	0	140	0	0	70	0	185	0	
Volume Right	0	0	0	117	0	0	65	0	124	0	446	
cSH	693	1700	1700	1700	567	1700	1700	0	739	0	526	
Volume to Capacity	0.38	0.41	0.41	0.07	0.25	0.38	0.23	Err	0.17	Err	0.85	
Queue Length 95th (ft)	44	0	0	0	24	0	0	Err	15	Err	222	
Control Delay (s)	13.3	0.0	0.0	0.0	13.4	0.0	0.0	Err	10.8	Err	39.1	
Lane LOS	B				B			F	B	F	E	
Approach Delay (s)	2.0				1.6			Err		Err		
Approach LOS								F		F		

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	89.8%	ICU Level of Service	E	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1460	80	70	945	140	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.95	0.95	0.84	0.84
Hourly flow rate (vph)	1604	88	74	995	167	30
Pedestrians	7			7	7	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				724		
pX, platoon unblocked					0.88	
vC, conflicting volume			1699		2307	860
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1699		2215	860
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			80		0	90
cM capacity (veh/h)			369		26	296

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	1070	623	74	497	497	196
Volume Left	0	0	74	0	0	167
Volume Right	0	88	0	0	0	30
cSH	1700	1700	369	1700	1700	30
Volume to Capacity	0.63	0.37	0.20	0.29	0.29	6.52
Queue Length 95th (ft)	0	0	18	0	0	Err
Control Delay (s)	0.0	0.0	17.2	0.0	0.0	Err
Lane LOS			C			F
Approach Delay (s)	0.0		1.2			Err
Approach LOS						F

Intersection Summary			
Average Delay	664.6		
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	385	945	155	110	480	215	150	285	110	245	240	385
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.79	1.00	1.00	0.97	1.00	1.00	0.92	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1251	1770	3539	1540	1770	1863	1458	1770	1863	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1251	1770	3539	1540	1770	1863	1458	1770	1863	1560
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	428	1050	172	121	527	236	174	331	128	272	267	428
RTOR Reduction (vph)	0	0	51	0	0	83	0	0	23	0	0	313
Lane Group Flow (vph)	428	1050	121	121	527	153	174	331	105	272	267	115
Confl. Peds. (#/hr)			59						35			
Confl. Bikes (#/hr)			6			12			9		9	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	28.0	35.9	35.9	9.7	17.6	17.6	13.1	22.0	22.0	18.7	27.6	27.6
Effective Green, g (s)	28.0	35.9	35.9	9.7	17.6	17.6	13.1	22.0	22.0	18.7	27.6	27.6
Actuated g/C Ratio	0.27	0.35	0.35	0.09	0.17	0.17	0.13	0.22	0.22	0.18	0.27	0.27
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	484	1242	439	168	609	265	227	401	314	324	503	421
v/s Ratio Prot	c0.24	c0.30		0.07	0.15		0.10	c0.18		c0.15	0.14	
v/s Ratio Perm			0.10			0.10			0.07			0.07
v/c Ratio	0.88	0.85	0.27	0.72	0.87	0.58	0.77	0.83	0.34	0.84	0.53	0.27
Uniform Delay, d1	35.6	30.6	23.9	45.0	41.2	38.9	43.1	38.3	34.0	40.4	31.8	29.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.3	5.5	0.3	14.1	12.3	3.0	14.3	13.0	0.6	17.1	1.1	0.4
Delay (s)	52.8	36.1	24.2	59.1	53.5	42.0	57.4	51.3	34.6	57.5	32.9	29.8
Level of Service	D	D	C	E	D	D	E	D	C	E	C	C
Approach Delay (s)		39.2			51.2			49.6			38.4	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	43.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	102.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1225	75	45	770	35	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.94	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1444	1770	3539	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1444	1770	3539	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.92	0.92	0.67	0.67
Adj. Flow (vph)	1361	83	49	837	52	15
RTOR Reduction (vph)	0	0	0	0	0	14
Lane Group Flow (vph)	1361	83	49	837	52	1
Confl. Peds. (#/hr)		16	16			
Confl. Bikes (#/hr)		4				
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	48.5	48.5	3.5	56.0	6.3	6.3
Effective Green, g (s)	48.5	48.5	3.5	56.0	6.3	6.3
Actuated g/C Ratio	0.62	0.62	0.04	0.71	0.08	0.08
Clearance Time (s)	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
Lane Grp Cap (vph)	2178	889	79	2515	142	127
v/s Ratio Prot	c0.38		c0.03	0.24	c0.03	
v/s Ratio Perm		0.06				0.00
v/c Ratio	0.62	0.09	0.62	0.33	0.37	0.01
Uniform Delay, d1	9.5	6.2	37.0	4.3	34.4	33.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	14.2	0.1	1.6	0.0
Delay (s)	10.0	6.2	51.2	4.4	36.0	33.4
Level of Service	B	A	D	A	D	C
Approach Delay (s)	9.8			7.0	35.4	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	20.5
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	150	995	710	135	70	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1504	1736	1541
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1504	1736	1541
Peak-hour factor, PHF	0.90	0.90	0.96	0.96	0.73	0.73
Adj. Flow (vph)	167	1106	740	141	96	158
RTOR Reduction (vph)	0	0	0	35	0	133
Lane Group Flow (vph)	167	1106	740	106	96	25
Confl. Peds. (#/hr)				15	2	13
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.3	38.0	21.7	21.7	9.9	9.9
Effective Green, g (s)	12.3	38.0	21.7	21.7	9.9	9.9
Actuated g/C Ratio	0.20	0.62	0.35	0.35	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	353	2180	1245	529	279	247
v/s Ratio Prot	0.09	c0.31	c0.21		c0.06	
v/s Ratio Perm				0.07		0.02
v/c Ratio	0.47	0.51	0.59	0.20	0.34	0.10
Uniform Delay, d1	21.8	6.6	16.4	13.9	23.0	22.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.2	0.8	0.2	0.7	0.2
Delay (s)	22.8	6.8	17.2	14.1	23.8	22.3
Level of Service	C	A	B	B	C	C
Approach Delay (s)		8.9	16.7		22.8	
Approach LOS		A	B		C	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	61.7	Sum of lost time (s)	17.8
Intersection Capacity Utilization	45.1%	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 (veh/h)	5	1035	30	80	780	5	60	5	30	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.52	0.52	0.52	0.38	0.38	0.38
Hourly flow rate (vph)	6	1150	33	85	830	5	115	10	58	13	13	13
Pedestrians		5			50			5				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			4			0				
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		903										
pX, platoon unblocked				0.83			0.83	0.83	0.83	0.83	0.83	
vC, conflicting volume	835			1188			1793	2188	647	1701	2202	423
vC1, stage 1 conf vol							1183	1183		1003	1003	
vC2, stage 2 conf vol							610	1005		699	1199	
vCu, unblocked vol	835			818			1546	2022	165	1436	2039	423
tC, single (s)	4.1			4.3			7.6	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)							6.6	5.5		6.5	5.5	
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			87			47	95	91	93	92	98
cM capacity (veh/h)	794			635			217	203	668	201	175	577

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	581	608	85	553	282	183	39
Volume Left	6	0	85	0	0	115	13
Volume Right	0	33	0	0	5	58	13
cSH	794	1700	635	1700	1700	275	241
Volume to Capacity	0.01	0.36	0.13	0.33	0.17	0.67	0.16
Queue Length 95th (ft)	1	0	12	0	0	108	14
Control Delay (s)	0.2	0.0	11.5	0.0	0.0	40.8	22.8
Lane LOS	A		B			E	C
Approach Delay (s)	0.1		1.1			40.8	22.8
Approach LOS						E	C

Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	74.4%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	860	195	40	770	95	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.96	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1519	1770	1863	1736	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1519	1770	1863	1736	1583
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.78	0.78
Adj. Flow (vph)	956	217	43	819	122	71
RTOR Reduction (vph)	0	34	0	0	0	36
Lane Group Flow (vph)	956	183	43	819	122	35
Confl. Peds. (#/hr)		11				
Confl. Bikes (#/hr)		4				
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	31.6	31.6	2.5	38.1	7.6	7.6
Effective Green, g (s)	31.6	31.6	2.5	38.1	7.6	7.6
Actuated g/C Ratio	0.59	0.59	0.05	0.71	0.14	0.14
Clearance Time (s)	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
Lane Grp Cap (vph)	2083	894	82	1322	246	224
v/s Ratio Prot	0.27		0.02	c0.44	c0.07	
v/s Ratio Perm		0.12				0.02
v/c Ratio	0.46	0.20	0.52	0.62	0.50	0.16
Uniform Delay, d1	6.2	5.2	25.0	4.0	21.3	20.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	5.9	0.9	1.6	0.3
Delay (s)	6.4	5.3	31.0	4.9	22.9	20.6
Level of Service	A	A	C	A	C	C
Approach Delay (s)	6.2			6.2	22.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	53.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	775	145	235	730	80	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1546	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1546	1770	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.59	0.59
Adj. Flow (vph)	861	161	250	777	136	127
RTOR Reduction (vph)	0	98	0	0	0	105
Lane Group Flow (vph)	861	64	250	777	136	22
Confl. Bikes (#/hr)		4				
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	25.4	25.4	15.7	45.1	11.3	11.3
Effective Green, g (s)	25.4	25.4	15.7	45.1	11.3	11.3
Actuated g/C Ratio	0.39	0.39	0.24	0.70	0.18	0.18
Clearance Time (s)	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
Lane Grp Cap (vph)	1396	610	432	1305	311	278
v/s Ratio Prot	0.24		0.14	c0.42	c0.08	
v/s Ratio Perm		0.04				0.01
v/c Ratio	0.62	0.10	0.58	0.60	0.44	0.08
Uniform Delay, d1	15.6	12.3	21.4	5.0	23.7	22.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	1.9	0.7	1.0	0.1
Delay (s)	16.4	12.4	23.3	5.7	24.7	22.3
Level of Service	B	B	C	A	C	C
Approach Delay (s)	15.8			10.0	23.6	
Approach LOS	B			A	C	

Intersection Summary			
HCM Average Control Delay	14.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	64.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	55	355	365	885	880	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	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
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1559	1770	1863	3539	1547
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1559	1770	1863	3539	1547
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	394	406	983	978	44
RTOR Reduction (vph)	0	342	0	0	0	27
Lane Group Flow (vph)	61	52	406	983	978	17
Confl. Bikes (#/hr)		2		5	1	3
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	9.1	9.1	21.1	51.8	26.7	26.7
Effective Green, g (s)	9.1	9.1	21.1	51.8	26.7	26.7
Actuated g/C Ratio	0.13	0.13	0.31	0.75	0.39	0.39
Clearance Time (s)	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
Lane Grp Cap (vph)	234	206	542	1401	1371	599
v/s Ratio Prot	c0.03		0.23	c0.53	0.28	
v/s Ratio Perm		0.03				0.01
v/c Ratio	0.26	0.25	0.75	0.70	0.71	0.03
Uniform Delay, d1	26.9	26.8	21.5	4.5	17.9	13.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.6	5.6	1.6	1.8	0.0
Delay (s)	27.5	27.5	27.1	6.1	19.6	13.1
Level of Service	C	C	C	A	B	B
Approach Delay (s)	27.5			12.3	19.4	
Approach LOS	C			B	B	

Intersection Summary			
HCM Average Control Delay	17.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	68.9	Sum of lost time (s)	8.0
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)	205	130	625	20	20	40	605	1140	55	90	1095	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	0.98		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		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.90		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1568	1719	1650		1770	3511		1752	3539	1538
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1568	1719	1650		1770	3511		1752	3539	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.69	0.69	0.69	0.90	0.90	0.90	0.94	0.94	0.94
Adj. Flow (vph)	228	144	694	29	29	58	672	1267	61	96	1165	74
RTOR Reduction (vph)	0	0	46	0	52	0	0	3	0	0	0	51
Lane Group Flow (vph)	228	144	648	29	35	0	672	1325	0	96	1165	23
Confl. Peds. (#/hr)			6			5			2			2
Confl. Bikes (#/hr)			6		2	2			2		3	3
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	2%	3%	2%	2%
Turn Type	Prot		pm+ov	Prot			Prot			Prot		Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	9.1	16.0	40.2	1.9	8.8		24.2	44.8		5.4	26.0	26.0
Effective Green, g (s)	9.1	16.0	40.2	1.9	8.8		24.2	44.8		5.4	26.0	26.0
Actuated g/C Ratio	0.11	0.19	0.48	0.02	0.10		0.29	0.53		0.06	0.31	0.31
Clearance Time (s)	4.0	4.0	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	3.0	3.0
Lane Grp Cap (vph)	192	354	824	39	173		509	1870		112	1094	475
v/s Ratio Prot	c0.13	0.08	c0.23	0.02	0.02		c0.38	0.38		0.05	c0.33	
v/s Ratio Perm			0.19									0.01
v/c Ratio	1.19	0.41	0.79	0.74	0.20		1.32	0.71		0.86	1.06	0.05
Uniform Delay, d1	37.5	29.9	18.4	40.9	34.4		29.9	14.7		39.0	29.0	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	124.6	0.8	5.0	54.3	0.6		157.4	1.3		43.6	46.3	0.0
Delay (s)	162.1	30.6	23.3	95.1	35.0		187.4	16.0		82.6	75.3	20.4
Level of Service	F	C	C	F	D		F	B		F	E	C
Approach Delay (s)		54.0			50.0			73.6			72.8	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM Average Control Delay	68.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	84.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.8%	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)	515	335	175	35	80	195	30	900	110	270	485	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1562	1770	1863	1561	1752	3505	1559	1770	3539	1562
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1562	1770	1863	1561	1752	3505	1559	1770	3539	1562
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.97	0.97	0.97	0.90	0.90	0.90
Adj. Flow (vph)	531	345	180	38	86	210	31	928	113	300	539	367
RTOR Reduction (vph)	0	0	120	0	0	188	0	0	17	0	0	236
Lane Group Flow (vph)	531	345	60	38	86	22	31	928	96	300	539	131
Confl. Bikes (#/hr)		1	2			1			4		3	2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%	2%
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	31.5	31.5	31.5	9.9	9.9	9.9	3.6	23.6	23.6	14.0	34.0	34.0
Effective Green, g (s)	31.5	31.5	31.5	9.9	9.9	9.9	3.6	23.6	23.6	14.0	34.0	34.0
Actuated g/C Ratio	0.33	0.33	0.33	0.10	0.10	0.10	0.04	0.25	0.25	0.15	0.36	0.36
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	587	1173	518	184	194	163	66	871	387	261	1267	559
v/s Ratio Prot	c0.30	0.10		0.02	c0.05		0.02	c0.26		c0.17	0.15	
v/s Ratio Perm			0.04			0.01			0.06			0.08
v/c Ratio	0.90	0.29	0.12	0.21	0.44	0.13	0.47	1.07	0.25	1.15	0.43	0.23
Uniform Delay, d1	30.3	23.5	22.1	39.0	40.0	38.7	44.8	35.7	28.6	40.5	23.1	21.4
Progression Factor	0.86	0.81	1.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.0	0.6	0.4	0.6	1.6	0.4	5.2	49.5	0.3	102.2	0.2	0.2
Delay (s)	45.2	19.7	26.4	39.5	41.6	39.0	50.0	85.2	28.9	142.7	23.3	21.6
Level of Service	D	B	C	D	D	D	D	F	C	F	C	C
Approach Delay (s)		33.6			39.7			78.2			52.5	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM Average Control Delay	53.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	55	20	795	65	35	735
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	60	22	864	71	38	799
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		7				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1739	864			935	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1739	864			935	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	34	94			95	
cM capacity (veh/h)	91	354			732	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	82	864	71	38	799
Volume Left	60	0	0	38	0
Volume Right	22	0	71	0	0
cSH	124	1700	1700	732	1700
Volume to Capacity	0.66	0.51	0.04	0.05	0.47
Queue Length 95th (ft)	87	0	0	4	0
Control Delay (s)	78.1	0.0	0.0	10.2	0.0
Lane LOS	F			B	
Approach Delay (s)	78.1	0.0		0.5	
Approach LOS	F				

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	5	40	125	5	90	50	720	115	55	705	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	5	43	136	5	98	54	783	125	60	766	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								633				
pX, platoon unblocked	0.84	0.84		0.84	0.84	0.84				0.84		
vC, conflicting volume	1796	1918	783	1886	1872	845	799			908		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1853	1999	783	1960	1943	720	799			794		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	87	89	0	88	73	93			91		
cM capacity (veh/h)	28	43	394	29	47	359	824			694		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	54	49	136	103	54	908	60	799
Volume Left	54	0	136	0	54	0	60	0
Volume Right	0	43	0	98	0	125	0	33
cSH	28	207	29	265	824	1700	694	1700
Volume to Capacity	1.94	0.24	4.75	0.39	0.07	0.53	0.09	0.47
Queue Length 95th (ft)	161	22	Err	44	5	0	7	0
Control Delay (s)	738.5	27.8	Err	26.9	9.7	0.0	10.7	0.0
Lane LOS	F	D	F	D	A		B	
Approach Delay (s)	401.8		5692.9		0.5		0.7	
Approach LOS	F		F					

Intersection Summary				
Average Delay	649.1			
Intersection Capacity Utilization	66.0%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	5	20	135	70	5	20	595	200	185	615	70
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	87	5	22	150	78	6	22	661	222	206	683	78
Pedestrians					6						1	
Lane Width (ft)					12.0						12.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					1						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1884	2067	722	1942	1995	779	761			889		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1884	2067	722	1942	1995	779	761			889		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	86	95	0	0	99	97			73		
cM capacity (veh/h)	0	38	427	32	43	393	851			758		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	87	27	150	83	22	883	206	761
Volume Left	87	0	150	0	22	0	206	0
Volume Right	0	22	0	6	0	222	0	78
cSH	0	141	32	45	851	1700	758	1700
Volume to Capacity	Err	0.19	4.67	1.84	0.03	0.52	0.27	0.45
Queue Length 95th (ft)	Err	17	Err	211	2	0	27	0
Control Delay (s)	Err	36.5	Err	592.1	9.3	0.0	11.5	0.0
Lane LOS	F	E	F	F	A		B	
Approach Delay (s)	Err		6639.4		0.2		2.4	
Approach LOS	F		F					

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	78.0%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	55	105	90	505	410	95
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	71	136	110	616	500	116
Pedestrians	9			3		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			0		
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)					656	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	1402	570	625			
vC1, stage 1 conf vol	567					
vC2, stage 2 conf vol	835					
vCu, unblocked vol	1390	449	511			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	74	88			
cM capacity (veh/h)	324	534	926			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	208	110	616	616
Volume Left	71	110	0	0
Volume Right	136	0	0	116
cSH	437	926	1700	1700
Volume to Capacity	0.48	0.12	0.36	0.36
Queue Length 95th (ft)	63	10	0	0
Control Delay (s)	20.5	9.4	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	20.5	1.4		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	52.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	160	105	460	115	170	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.87	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1308	1800		1770	1863
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1308	1800		1770	1863
Peak-hour factor, PHF	0.85	0.85	0.86	0.86	0.87	0.87
Adj. Flow (vph)	188	124	535	134	195	471
RTOR Reduction (vph)	0	107	10	0	0	0
Lane Group Flow (vph)	188	17	659	0	195	471
Confl. Bikes (#/hr)		42		18		14
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%
Turn Type		Perm			Prot	
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	9.1	9.1	29.5		9.1	42.6
Effective Green, g (s)	9.1	9.1	29.5		9.1	42.6
Actuated g/C Ratio	0.14	0.14	0.44		0.14	0.64
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	243	179	800		243	1195
v/s Ratio Prot	c0.11		c0.37		c0.11	0.25
v/s Ratio Perm		0.01				
v/c Ratio	0.77	0.09	0.82		0.80	0.39
Uniform Delay, d1	27.7	25.0	16.2		27.8	5.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.2	0.2	6.9		17.2	0.2
Delay (s)	41.8	25.3	23.1		44.9	5.9
Level of Service	D	C	C		D	A
Approach Delay (s)	35.3		23.1			17.3
Approach LOS	D		C			B

Intersection Summary			
HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	18.7
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	190	170	45	85	25	140	435	125	35	375	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	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	0.92		1.00	0.96	1.00	1.00	0.96	1.00	1.00	0.95
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	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1823	1464		1826	1518	1770	1863	1514	1770	1863	1505
Flt Permitted		0.81	1.00		0.77	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1510	1464		1432	1518	1770	1863	1514	1770	1863	1505
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	135	213	191	51	97	28	159	494	142	38	412	209
RTOR Reduction (vph)	0	0	100	0	0	19	0	0	80	0	0	137
Lane Group Flow (vph)	0	348	91	0	148	9	159	494	62	38	412	72
Confl. Peds. (#/hr)	5		10	10		5			6			9
Confl. Bikes (#/hr)		2	33		3	11		2	17		15	14
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		16.2	16.2		16.2	16.2	6.4	23.1	23.1	1.4	18.1	18.1
Effective Green, g (s)		16.2	16.2		16.2	16.2	6.4	23.1	23.1	1.4	18.1	18.1
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.12	0.44	0.44	0.03	0.34	0.34
Clearance Time (s)		4.0	4.0		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	3.0	3.0
Lane Grp Cap (vph)		464	450		440	467	215	817	664	47	640	517
v/s Ratio Prot							c0.09	c0.27		0.02	0.22	
v/s Ratio Perm		c0.23	0.06		0.10	0.01			0.04			0.05
v/c Ratio		0.75	0.20		0.34	0.02	0.74	0.60	0.09	0.81	0.64	0.14
Uniform Delay, d1		16.4	13.5		14.1	12.7	22.3	11.3	8.7	25.5	14.6	11.9
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		6.7	0.2		0.5	0.0	12.5	1.3	0.1	63.4	2.2	0.1
Delay (s)		23.1	13.7		14.6	12.7	34.8	12.6	8.7	88.9	16.8	12.1
Level of Service		C	B		B	B	C	B	A	F	B	B
Approach Delay (s)		19.8			14.3			16.3			19.5	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	52.7	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)	155	280	415	135	325	185	245	385	235	160	365	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.94	1.00	1.00	0.84	1.00	1.00	0.96	1.00	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1460	1770	3505	1326	1770	1863	1523	1770	1863	1475
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1460	1770	3505	1326	1770	1863	1523	1770	1863	1475
Peak-hour factor, PHF	0.96	0.96	0.96	0.84	0.84	0.84	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	161	292	432	161	387	220	269	423	258	174	397	147
RTOR Reduction (vph)	0	0	218	0	0	68	0	0	39	0	0	24
Lane Group Flow (vph)	161	292	214	161	387	152	269	423	219	174	397	123
Confl. Peds. (#/hr)			7			49			14			28
Confl. Bikes (#/hr)		1	12		2	7		2	6		5	15
Heavy Vehicles (%)	2%	2%	4%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.9	18.0	18.0	11.9	18.0	18.0	17.5	29.1	29.1	12.6	24.2	24.2
Effective Green, g (s)	11.9	18.0	18.0	11.9	18.0	18.0	17.5	29.1	29.1	12.6	24.2	24.2
Actuated g/C Ratio	0.14	0.21	0.21	0.14	0.21	0.21	0.20	0.33	0.33	0.14	0.28	0.28
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	727	300	240	720	272	354	619	506	255	515	407
v/s Ratio Prot	c0.09	0.08		0.09	0.11		c0.15	0.23		0.10	c0.21	
v/s Ratio Perm			c0.15			0.11			0.14			0.08
v/c Ratio	0.67	0.40	0.71	0.67	0.54	0.56	0.76	0.68	0.43	0.68	0.77	0.30
Uniform Delay, d1	36.0	30.1	32.4	36.0	31.1	31.2	33.1	25.3	22.8	35.6	29.2	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.2	0.4	7.8	7.2	0.8	2.5	9.1	3.1	0.6	7.3	7.0	0.4
Delay (s)	43.2	30.5	40.2	43.2	31.9	33.7	42.1	28.4	23.4	42.9	36.2	25.5
Level of Service	D	C	D	D	C	C	D	C	C	D	D	C
Approach Delay (s)		37.6			34.8			30.9			35.6	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM Average Control Delay	34.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	16.0
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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	45	205	10	20	30	10	35	165	15	10	285	30
Peak Hour Factor	0.65	0.65	0.65	0.78	0.78	0.78	0.83	0.83	0.83	0.76	0.76	0.76
Hourly flow rate (vph)	69	315	15	26	38	13	42	199	18	13	375	39

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	400	77	259	428
Volume Left (vph)	69	26	42	13
Volume Right (vph)	15	13	18	39
Hadj (s)	0.05	0.00	0.02	-0.02
Departure Headway (s)	6.3	7.1	6.4	6.0
Degree Utilization, x	0.69	0.15	0.46	0.72
Capacity (veh/h)	543	402	511	562
Control Delay (s)	22.2	11.4	14.8	22.9
Approach Delay (s)	22.2	11.4	14.8	22.9
Approach LOS	C	B	B	C

Intersection Summary			
Delay	20.1		
HCM Level of Service	C		
Intersection Capacity Utilization	48.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	320	75	25	295	20	70	160	80	20	80	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	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		1.00	1.00	0.96	1.00	0.98	
Flpb, ped/bikes	0.99	1.00		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	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1751	1769		1762	1837		1764	1863	1514	1763	1674	
Flt Permitted	0.45	1.00		0.40	1.00		0.56	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	824	1769		743	1837		1034	1863	1514	1193	1674	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.88	0.88	0.88	0.69	0.69	0.69
Adj. Flow (vph)	38	348	82	30	360	24	80	182	91	29	116	152
RTOR Reduction (vph)	0	17	0	0	5	0	0	0	55	0	91	0
Lane Group Flow (vph)	38	413	0	30	379	0	80	182	36	29	177	0
Confl. Peds. (#/hr)	13		6	6		13	3		3	3		3
Confl. Bikes (#/hr)		4	106		4	34		10	21		17	7
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	22.0	22.0		22.0	22.0		20.0	20.0	20.0	20.0	20.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		20.0	20.0	20.0	20.0	20.0	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.40	0.40	0.40	0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	363	778		327	808		414	745	606	477	670	
v/s Ratio Prot		c0.23			0.21			0.10			c0.11	
v/s Ratio Perm	0.05			0.04			0.08		0.02	0.02		
v/c Ratio	0.10	0.53		0.09	0.47		0.19	0.24	0.06	0.06	0.26	
Uniform Delay, d1	8.2	10.2		8.2	9.9		9.8	10.0	9.2	9.2	10.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	2.6		0.6	2.0		1.0	0.8	0.2	0.2	1.0	
Delay (s)	8.8	12.8		8.7	11.8		10.8	10.8	9.4	9.5	11.0	
Level of Service	A	B		A	B		B	B	A	A	B	
Approach Delay (s)		12.5			11.6			10.4			10.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.4%	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)	125	610	100	65	580	100	90	175	180	50	100	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95	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	0.95	1.00	1.00	0.94	1.00	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	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1809		1703	3539	1498	1770	1863	1483	1770	1863	1477
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1809		1703	3539	1498	1770	1863	1483	1770	1863	1477
Peak-hour factor, PHF	0.83	0.83	0.83	0.89	0.89	0.89	0.87	0.87	0.87	0.70	0.70	0.70
Adj. Flow (vph)	151	735	120	73	652	112	103	201	207	71	143	114
RTOR Reduction (vph)	0	6	0	0	0	64	0	0	164	0	0	93
Lane Group Flow (vph)	151	849	0	73	652	48	103	201	43	71	143	21
Confl. Peds. (#/hr)			14			11			3			18
Confl. Bikes (#/hr)			3			7			43		43	24
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	11.9	41.3		3.7	33.1	33.1	6.3	16.7	16.7	4.4	14.8	14.8
Effective Green, g (s)	11.9	41.3		3.7	33.1	33.1	6.3	16.7	16.7	4.4	14.8	14.8
Actuated g/C Ratio	0.14	0.50		0.05	0.40	0.40	0.08	0.20	0.20	0.05	0.18	0.18
Clearance Time (s)	4.0	4.0		4.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	257	910		77	1427	604	136	379	302	95	336	266
v/s Ratio Prot	0.09	c0.47		c0.04	0.18		c0.06	c0.11		0.04	0.08	
v/s Ratio Perm						0.03			0.03			0.01
v/c Ratio	0.59	0.93		0.95	0.46	0.08	0.76	0.53	0.14	0.75	0.43	0.08
Uniform Delay, d1	32.8	19.1		39.1	17.9	15.1	37.2	29.2	26.8	38.3	29.9	28.0
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	15.9		84.0	0.2	0.1	21.1	1.4	0.2	27.0	0.9	0.1
Delay (s)	36.2	35.0		123.1	18.2	15.2	58.3	30.6	27.0	65.3	30.7	28.1
Level of Service	D	D		F	B	B	E	C	C	E	C	C
Approach Delay (s)		35.2			26.9			34.7			37.3	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM Average Control Delay	32.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	82.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: Oak Ave

Scenario: Cumulative No Project - LI
Peak Hour: AM

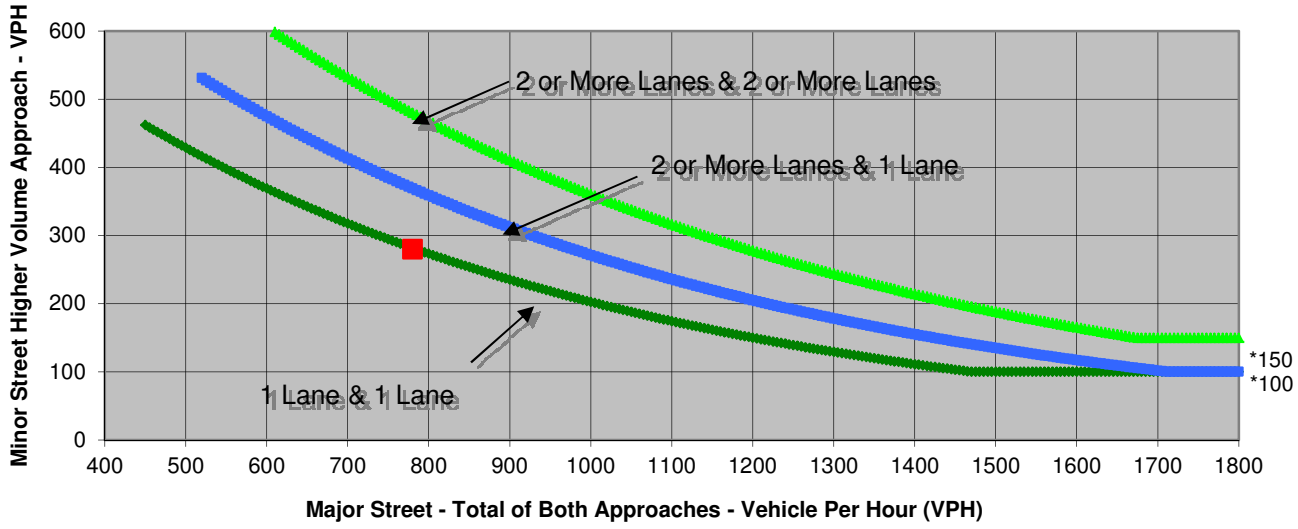
Turn Movement Volumes

	NB	SB	EB	WB
Left	20	120	65	55
Through	90	110	315	120
Right	45	50	90	135
Total	155	280	470	310

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	Oak Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	780	280	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: Oak Ave

Scenario: Cumulative No Project - LI
Peak Hour: PM

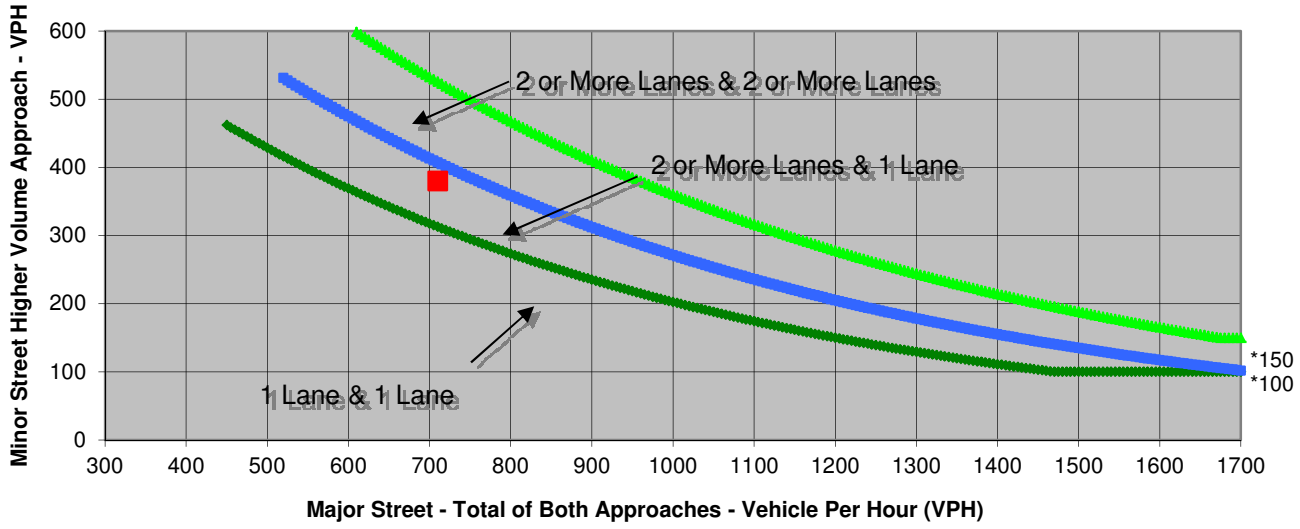
Turn Movement Volumes

	NB	SB	EB	WB
Left	55	180	30	15
Through	205	160	265	210
Right	20	40	20	170
Total	280	380	315	395

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	Oak Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	710	380	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: B St

Scenario: Cumulative No Project - LI
Peak Hour: AM

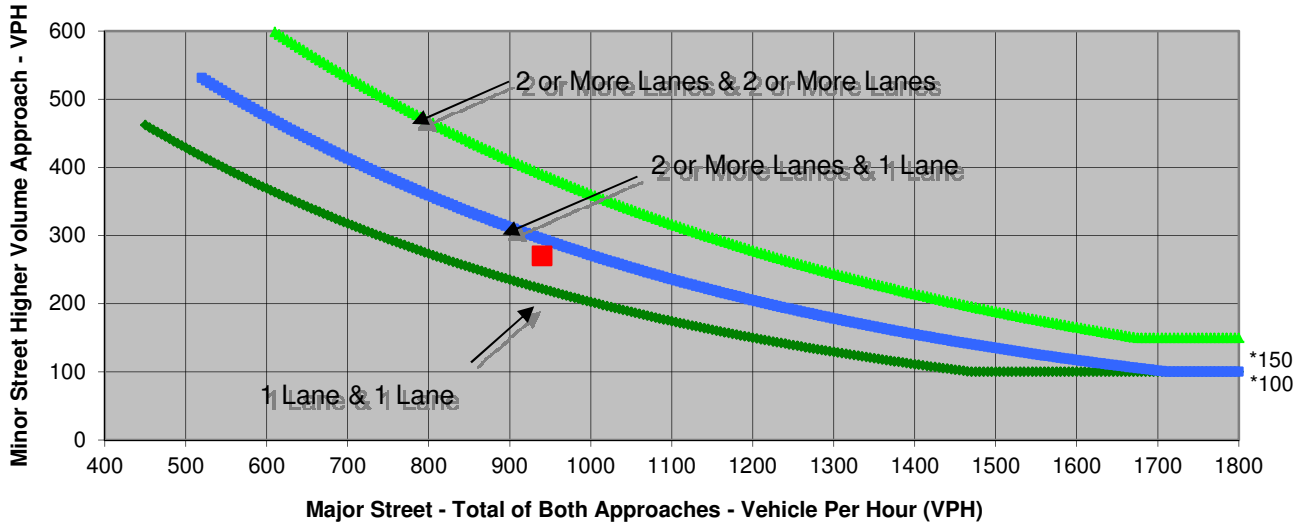
Turn Movement Volumes

	NB	SB	EB	WB
Left	215	0	0	135
Through	0	0	215	360
Right	55	0	230	0
Total	270	0	445	495

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	B St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	940	270	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: B St

Scenario: Cumulative No Project - LI
Peak Hour: PM

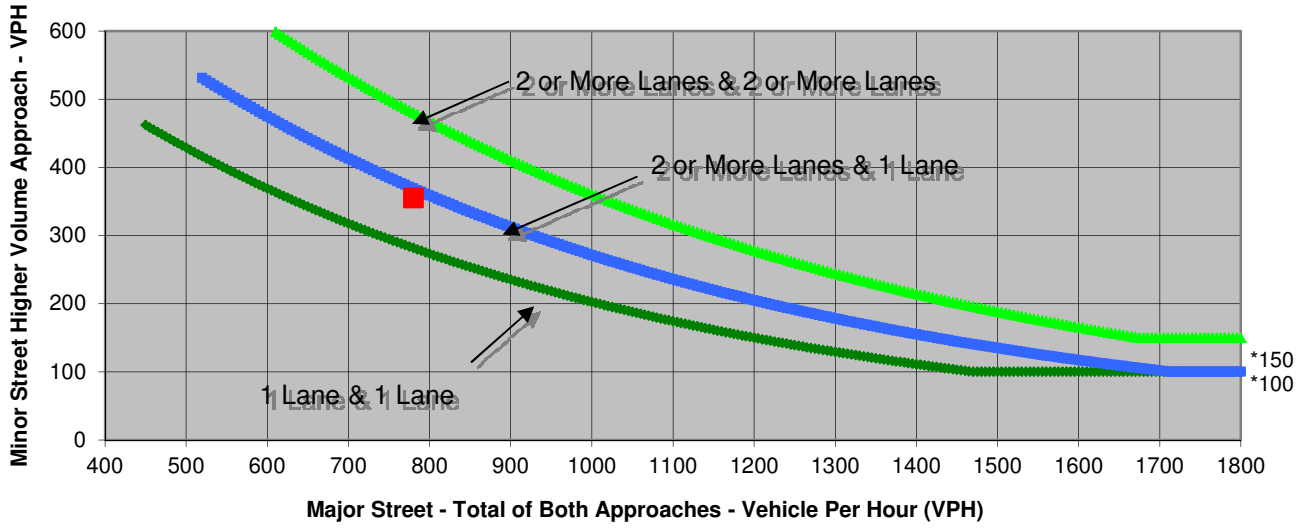
Turn Movement Volumes

	NB	SB	EB	WB
Left	265	0	0	50
Through	0	0	270	185
Right	90	0	275	0
Total	355	0	545	235

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	B St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	780	355	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: J St
Minor Street: Drexel Dr

Scenario: Cumulative No Project - LI
Peak Hour: AM

Turn Movement Volumes

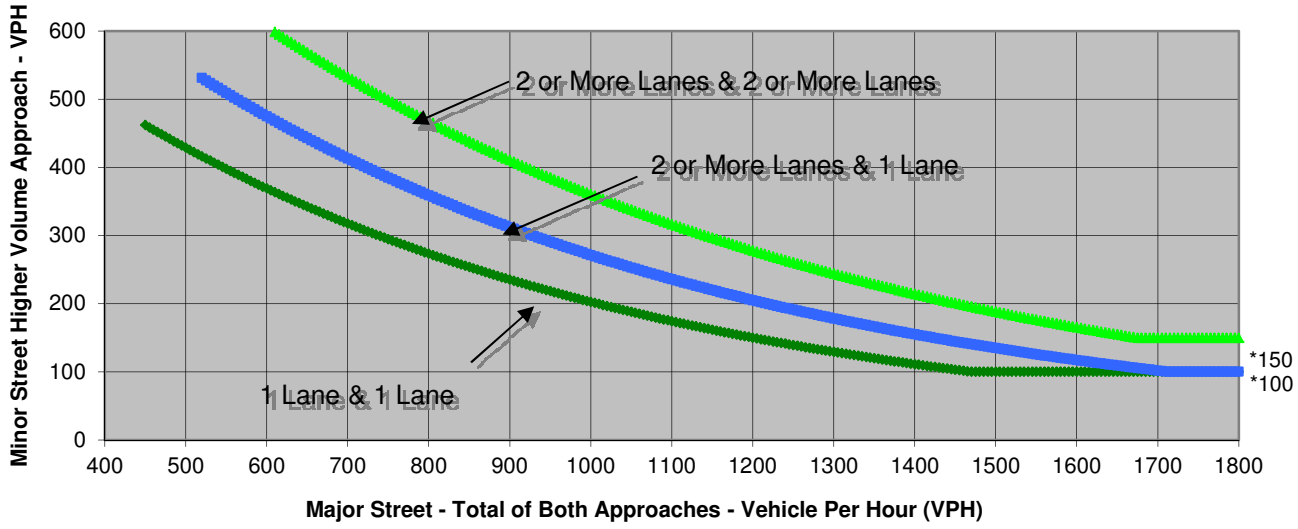
	NB	SB	EB	WB
Left	0	25	0	45
Through	105	100	0	0
Right	50	0	0	30
Total	155	125	0	75

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	J St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	280	75	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: J St
Minor Street: Drexel Dr

Scenario: Cumulative No Project - LI
Peak Hour: PM

Turn Movement Volumes

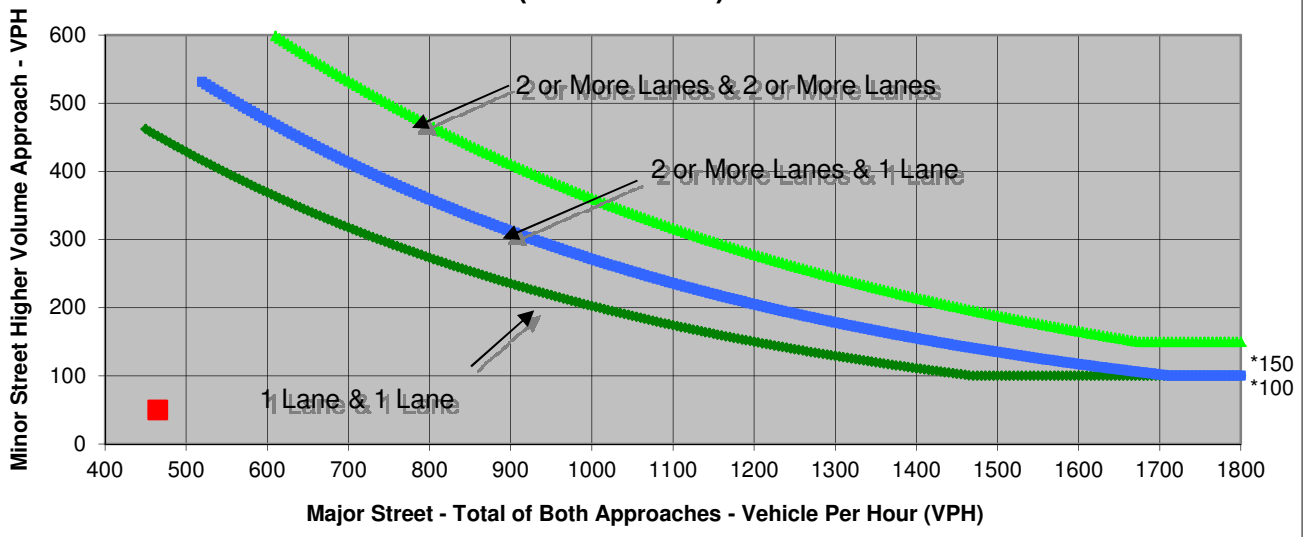
	NB	SB	EB	WB
Left	0	15	0	20
Through	140	115	0	0
Right	195	0	0	30
Total	335	130	0	50

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	J St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	465	50	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: E 8th St
Minor Street: J St

Scenario: Cumulative No Project - LI
Peak Hour: AM

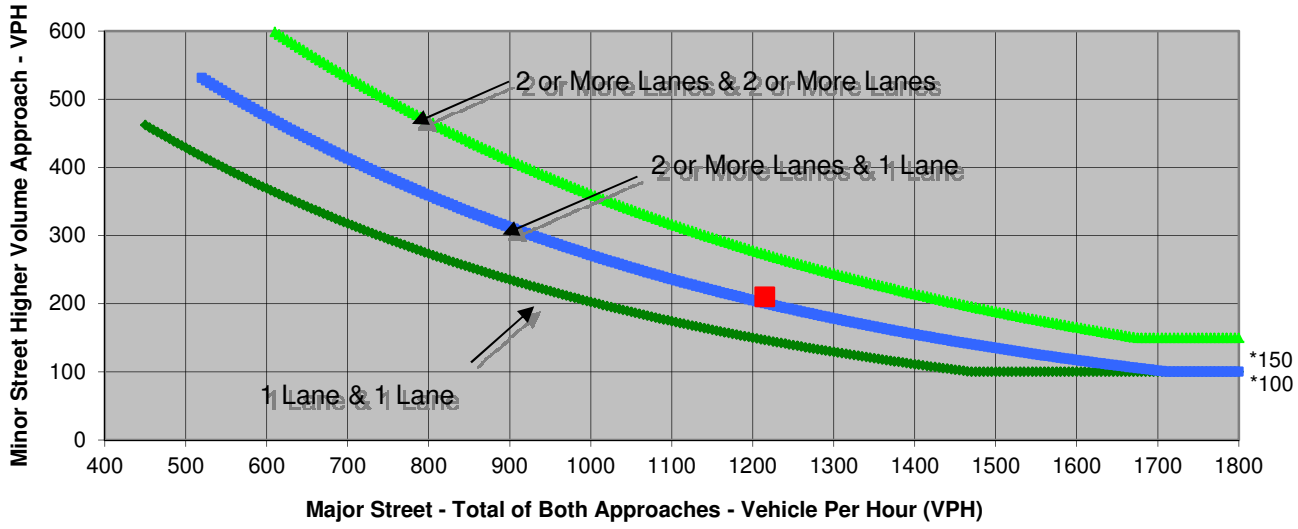
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	55	95	75
Through	25	35	405	545
Right	10	120	80	15
Total	95	210	580	635

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	E 8th St	J St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,215	210	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: E 8th St
Minor Street: J St

Scenario: Cumulative No Project - LI
Peak Hour: PM

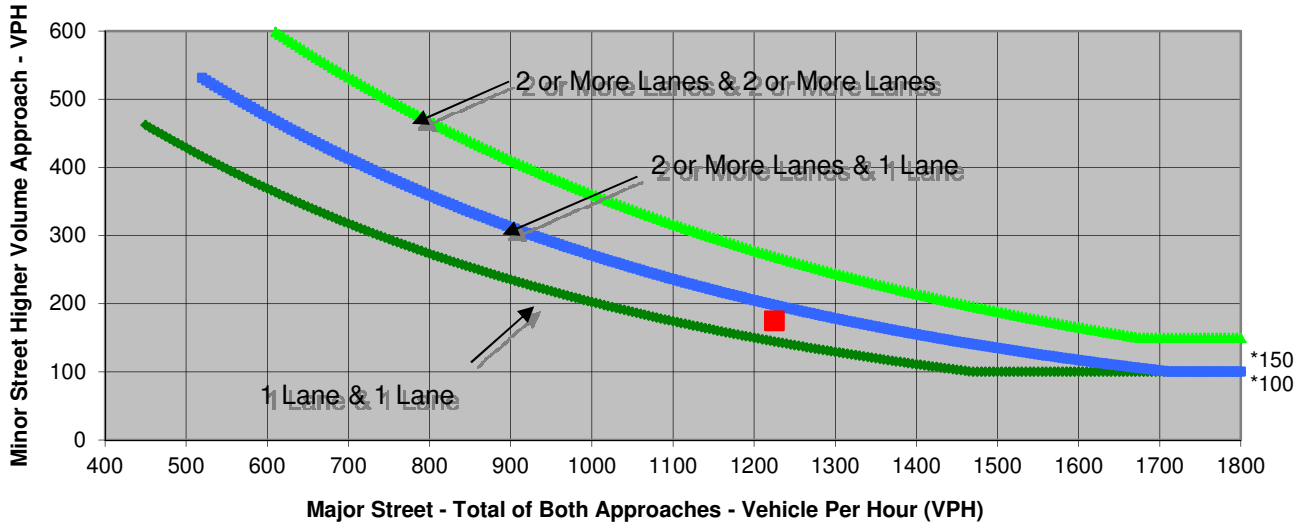
Turn Movement Volumes

	NB	SB	EB	WB
Left	65	40	315	35
Through	50	40	345	460
Right	60	70	35	35
Total	175	150	695	530

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	E 8th St	J St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,225	175	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: L St

Scenario: Cumulative No Project - LI
Peak Hour: AM

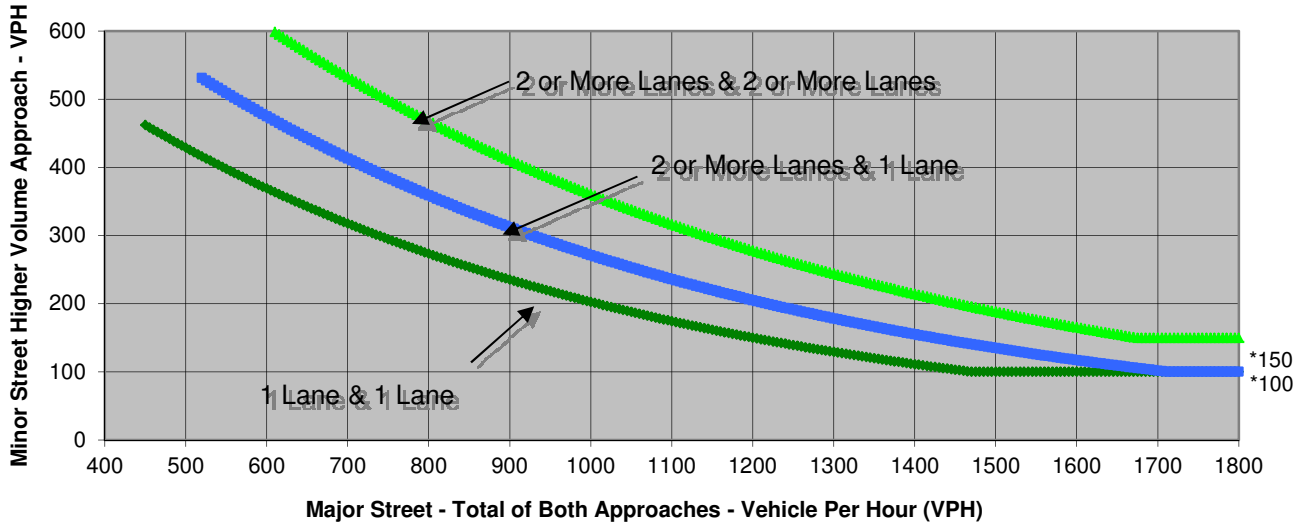
Turn Movement Volumes

	NB	SB	EB	WB
Left	35	80	630	185
Through	265	50	730	1,070
Right	0	165	0	130
Total	300	295	1,360	1,385

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	L St	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,745	300	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: L St

Scenario: Cumulative No Project - LI
Peak Hour: PM

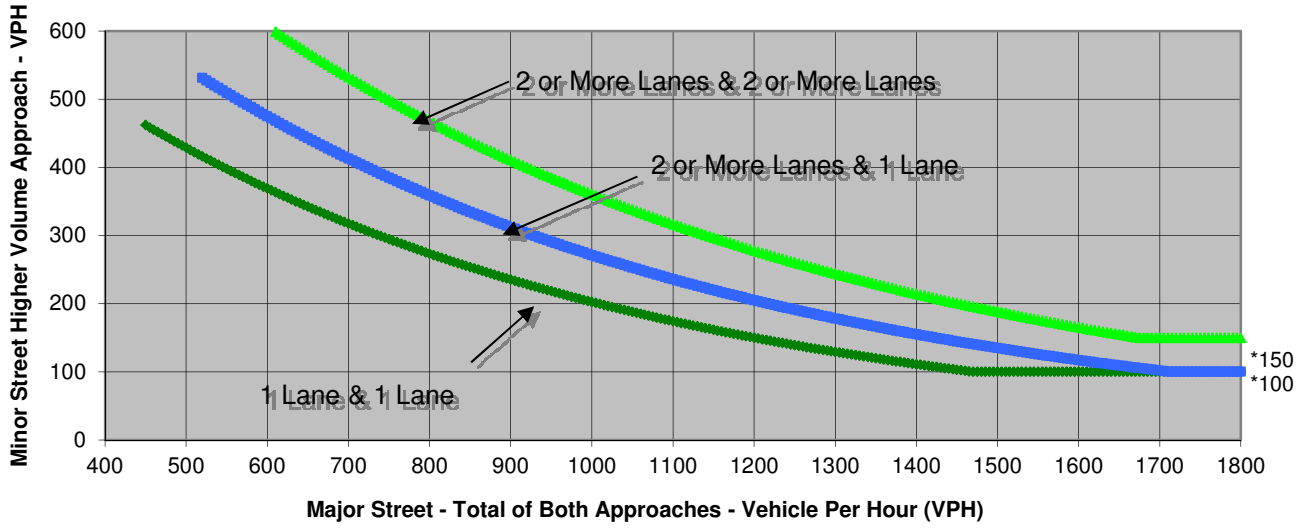
Turn Movement Volumes

	NB	SB	EB	WB
Left	65	170	235	130
Through	140	240	1,255	895
Right	0	410	0	60
Total	205	820	1,490	1,085

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	L St	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,575	820	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative No Project - LI
Peak Hour: AM

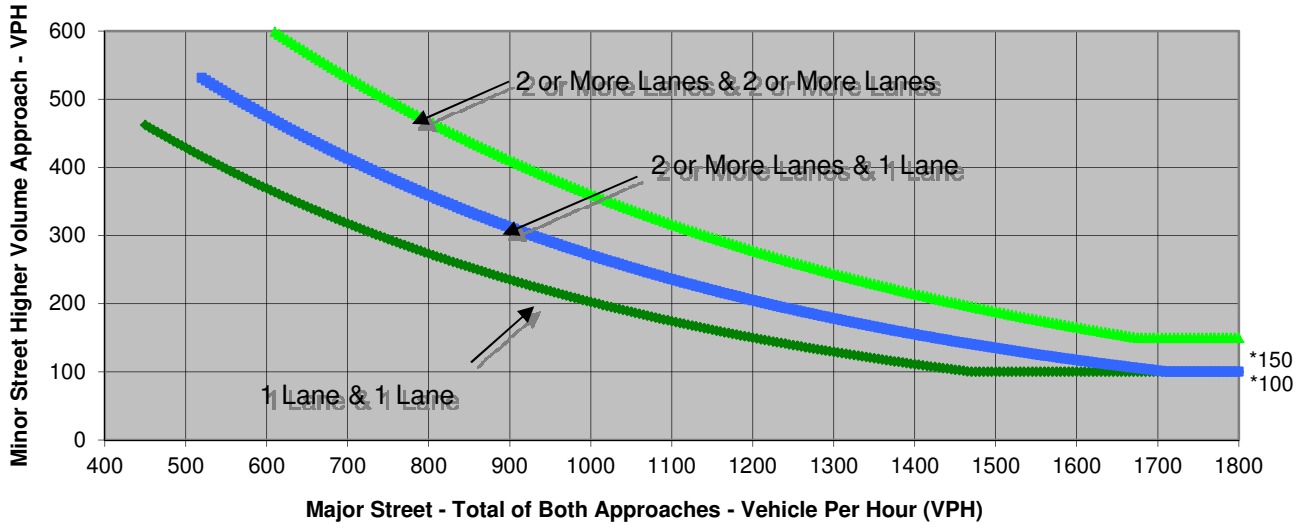
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	0	0	60
Through	0	0	825	1,325
Right	5	0	35	0
Total	65	0	860	1,385

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	2,245	65	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative No Project - LI
Peak Hour: PM

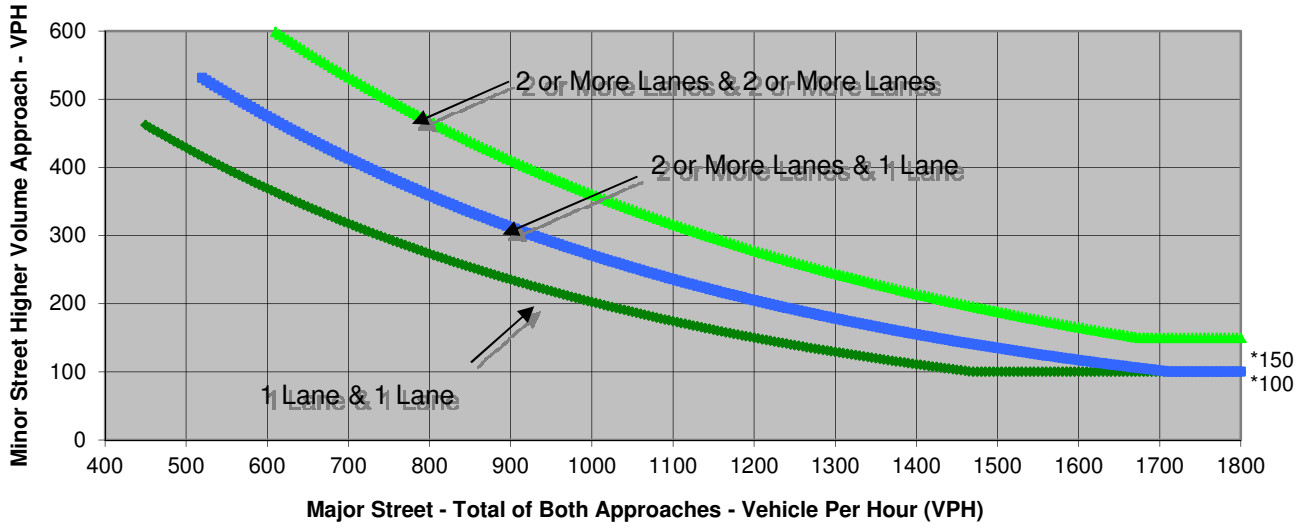
Turn Movement Volumes

	NB	SB	EB	WB
Left	140	0	0	70
Through	0	0	1,460	945
Right	25	0	80	0
Total	165	0	1,540	1,015

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,555	165	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Monarch Ln

Scenario: Cumulative No Project - LI
Peak Hour: AM

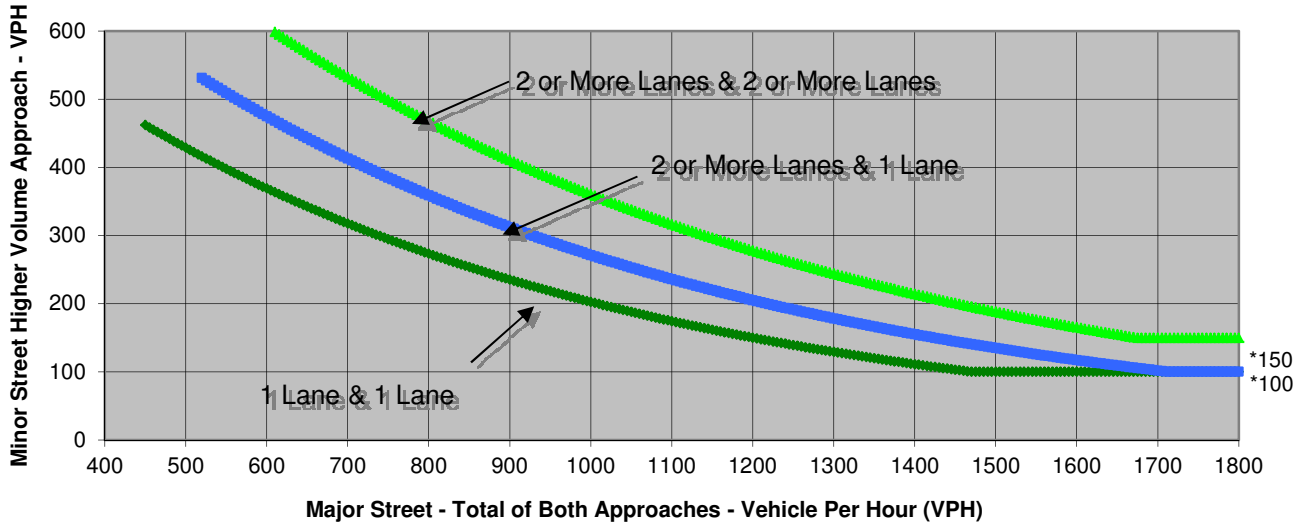
Turn Movement Volumes

	NB	SB	EB	WB
Left	70	5	5	35
Through	5	5	805	965
Right	50	5	35	5
Total	125	15	845	1,005

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Monarch Ln	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,850	125	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Monarch Ln

Scenario: Cumulative No Project - LI
Peak Hour: PM

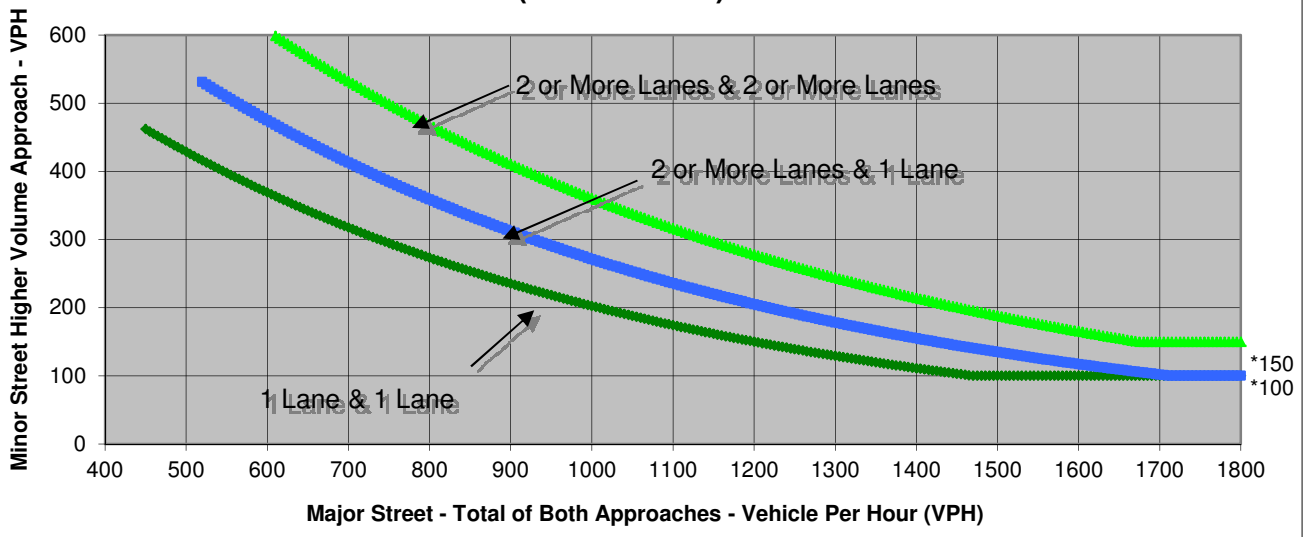
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	5	5	80
Through	5	5	1,035	780
Right	30	5	30	5
Total	95	15	1,070	865

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Monarch Ln	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,935	95	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Donner Ave

Scenario: Cumulative No Project - LI
Peak Hour: AM

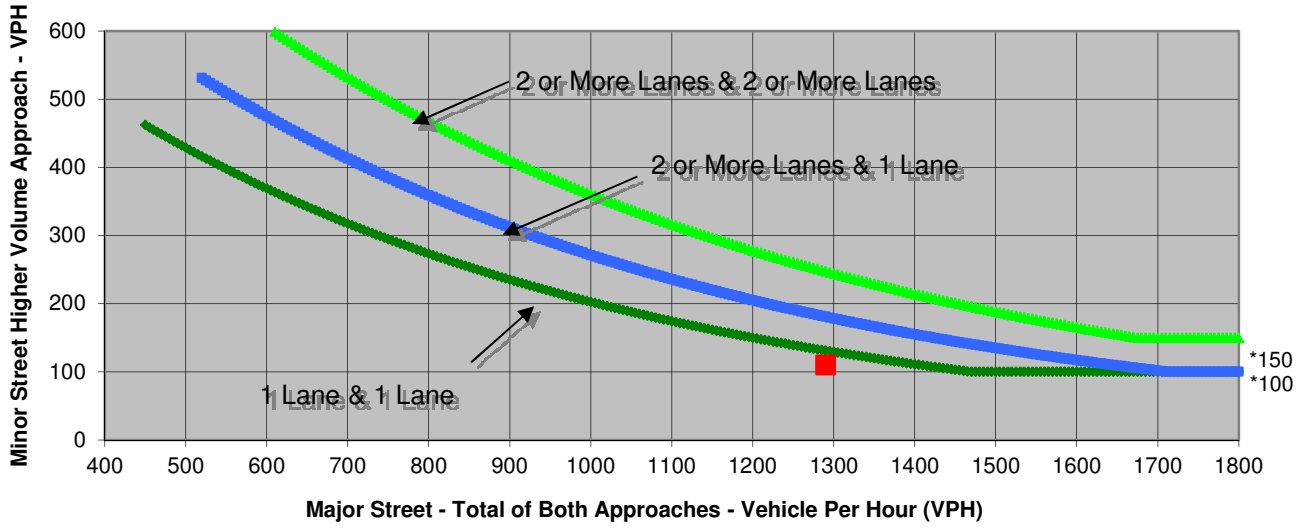
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	80
Through	550	695	0	0
Right	35	0	0	30
Total	585	705	0	110

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Donner Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,290	110	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Donner Ave

Scenario: Cumulative No Project - LI
Peak Hour: PM

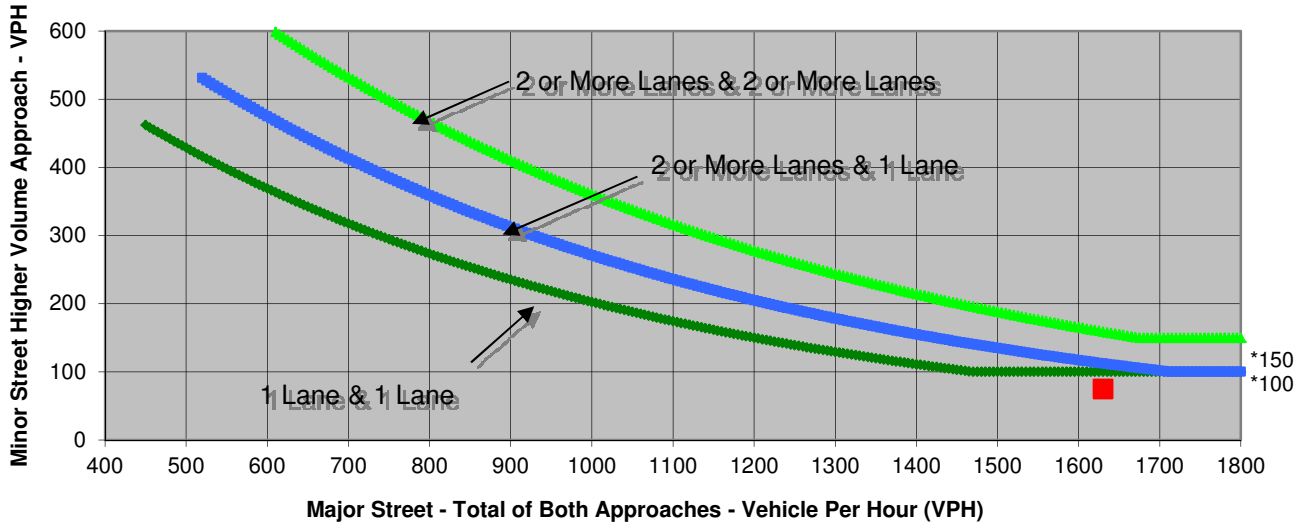
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	35	0	55
Through	795	735	0	0
Right	65	0	0	20
Total	860	770	0	75

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Pole Line Rd	Minor Street Donner Ave	Warrant Met
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,630	75	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Picasso Ave

Scenario: Cumulative No Project - LI
Peak Hour: AM

Turn Movement Volumes

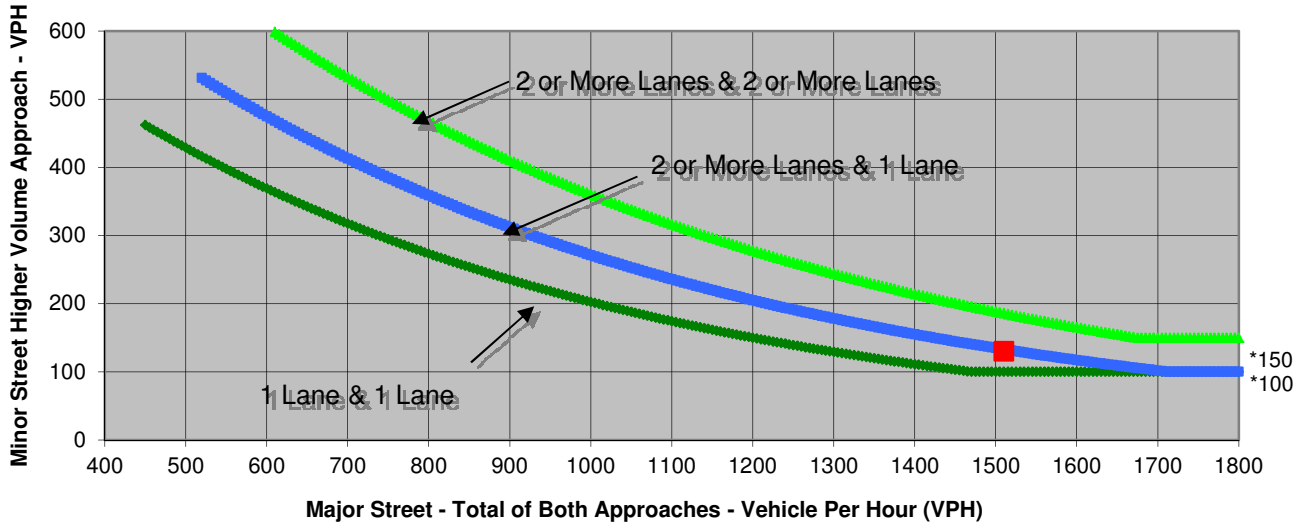
	NB	SB	EB	WB
Left	120	30	30	90
Through	515	695	5	0
Right	100	50	30	40
Total	735	775	65	130

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Picasso Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,510	130	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Picasso Ave

Scenario: Cumulative No Project - LI
Peak Hour: PM

Turn Movement Volumes

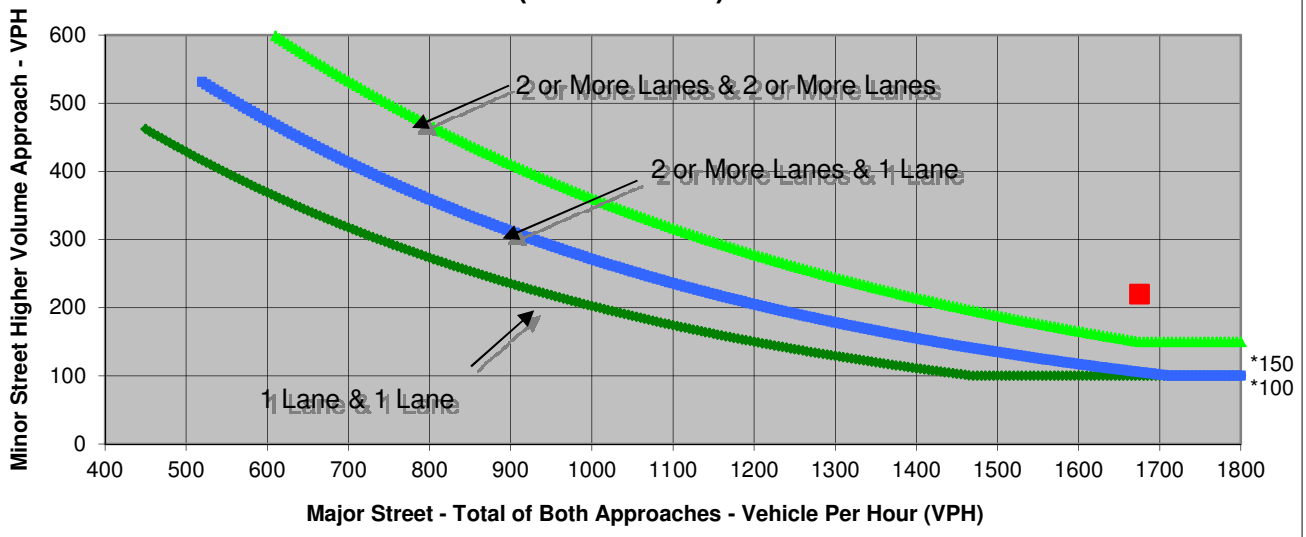
	NB	SB	EB	WB
Left	50	55	50	125
Through	720	705	5	5
Right	115	30	40	90
Total	885	790	95	220

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Pole Line Rd	Minor Street Picasso Ave	Warrant Met
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,675	220	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Moore Ave

Scenario: Cumulative No Project - LI
Peak Hour: AM

Turn Movement Volumes

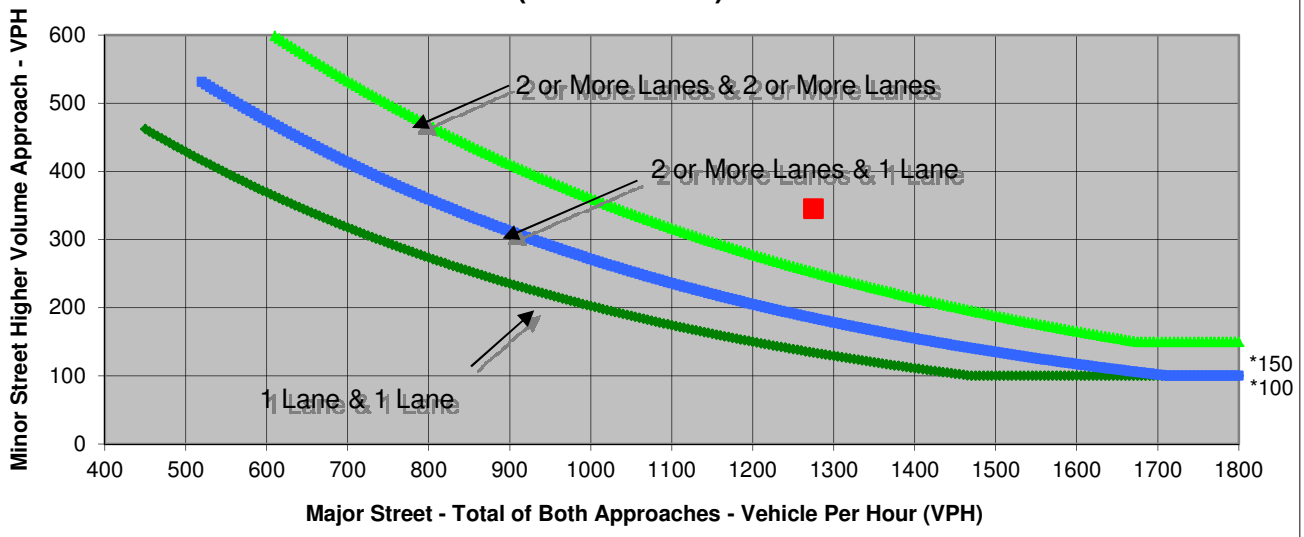
	NB	SB	EB	WB
Left	20	70	30	190
Through	470	505	5	5
Right	90	120	10	150
Total	580	695	45	345

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Moore Ave	
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,275	345	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Moore Ave

Scenario: Cumulative No Project - LI
Peak Hour: PM

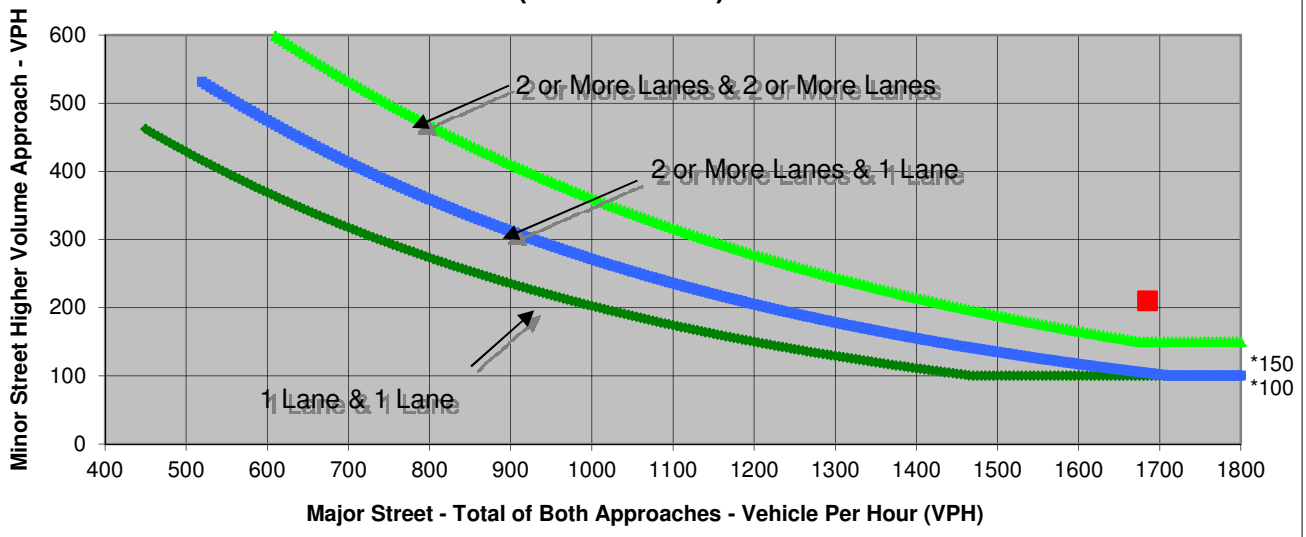
Turn Movement Volumes

	NB	SB	EB	WB
Left	20	185	80	135
Through	595	615	5	70
Right	200	70	20	5
Total	815	870	105	210

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Moore Ave	
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,685	210	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative No Project - LI
Peak Hour: AM

Turn Movement Volumes

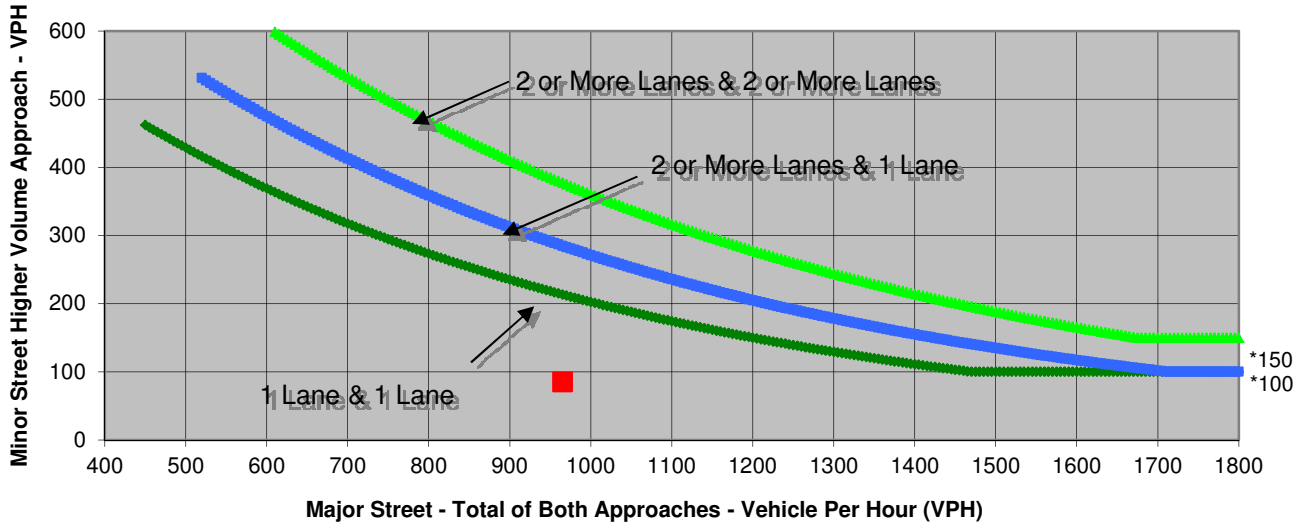
	NB	SB	EB	WB
Left	55	0	20	0
Through	450	410	0	0
Right	0	50	65	0
Total	505	460	85	0

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	965	85	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative No Project - LI
Peak Hour: PM

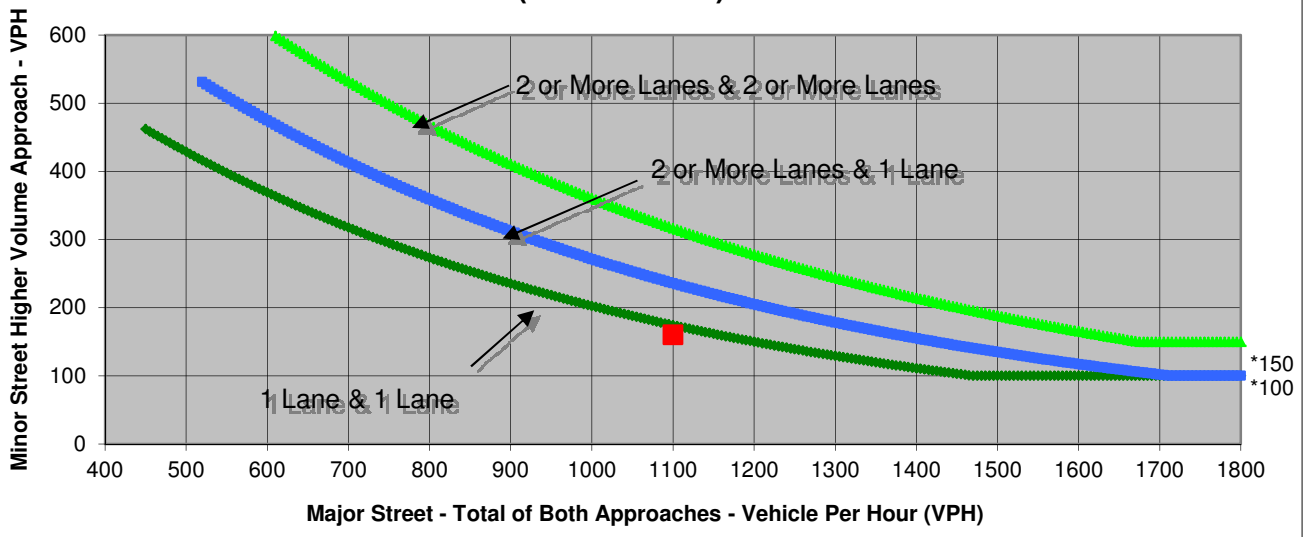
Turn Movement Volumes

	NB	SB	EB	WB
Left	90	0	55	0
Through	505	410	0	0
Right	0	95	105	0
Total	595	505	160	0

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,100	160	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: L St
Minor Street: Drexel Dr

Scenario: Cumulative No Project - LI
Peak Hour: AM

Turn Movement Volumes

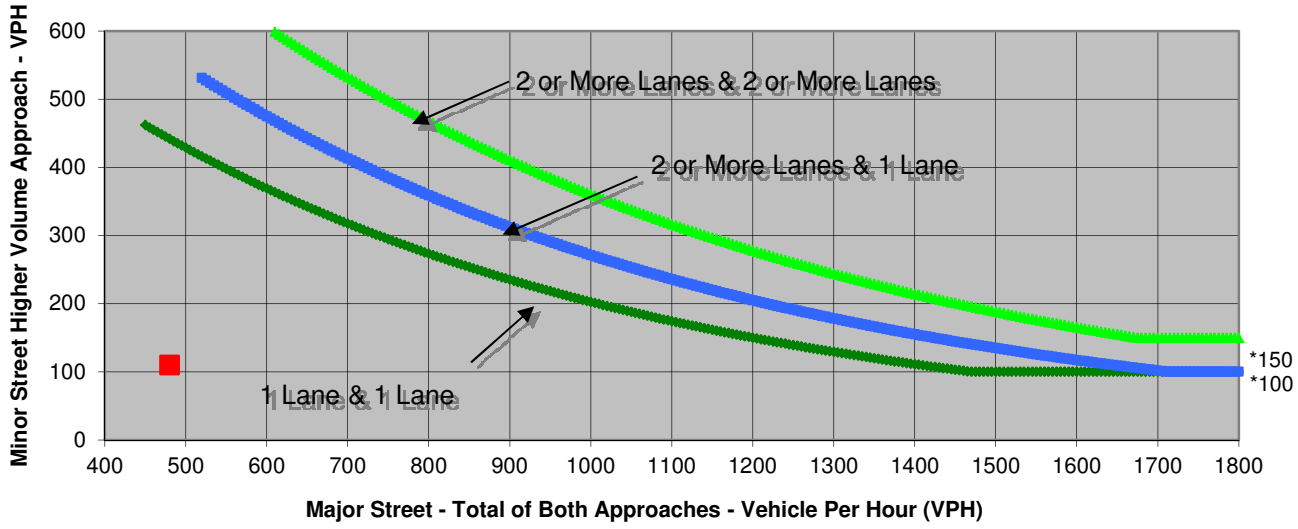
	NB	SB	EB	WB
Left	20	10	45	25
Through	120	200	50	60
Right	95	35	15	20
Total	235	245	110	105

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	L St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	480	110	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: L St
Minor Street: Drexel Dr

Scenario: Cumulative No Project - LI
Peak Hour: PM

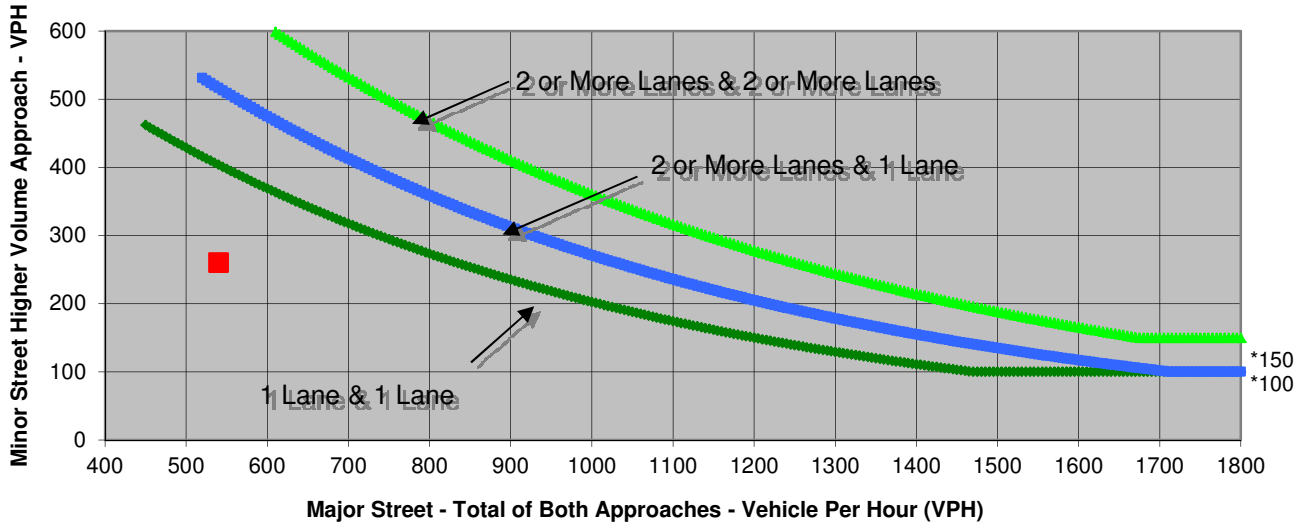
Turn Movement Volumes

	NB	SB	EB	WB
Left	35	10	45	20
Through	165	285	205	30
Right	15	30	10	10
Total	215	325	260	60

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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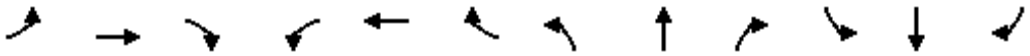
Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	L St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	540	260	

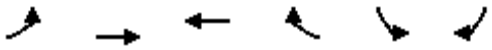
* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	565	15	148	437	250	10	65	376	390	25	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	1.00	0.97	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1719	3539	1518	3273	3438	1483	1770	1863	1533	1770	1596	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1719	3539	1518	3273	3438	1483	1770	1863	1533	1770	1596	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	100	628	17	164	486	278	12	76	442	433	28	78
RTOR Reduction (vph)	0	0	7	0	0	108	0	0	163	0	38	0
Lane Group Flow (vph)	100	628	10	164	486	170	12	76	279	433	68	0
Confl. Peds. (#/hr)			13			12			10			20
Confl. Bikes (#/hr)			3			2			1		1	
Heavy Vehicles (%)	5%	2%	2%	7%	5%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.0	23.6	23.6	13.8	29.4	29.4	0.8	27.2	27.2	29.4	55.8	
Effective Green, g (s)	8.0	23.6	23.6	13.8	29.4	29.4	0.8	27.2	27.2	29.4	55.8	
Actuated g/C Ratio	0.07	0.21	0.21	0.13	0.27	0.27	0.01	0.25	0.25	0.27	0.51	
Clearance Time (s)	4.0	4.0	4.0	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	3.0	3.0	3.0	
Lane Grp Cap (vph)	125	759	326	411	919	396	13	461	379	473	810	
v/s Ratio Prot	0.06	c0.18		0.05	c0.14		0.01	0.04		c0.24	0.04	
v/s Ratio Perm			0.01			0.11			c0.18			
v/c Ratio	0.80	0.83	0.03	0.40	0.53	0.43	0.92	0.16	0.74	0.92	0.08	
Uniform Delay, d1	50.2	41.3	34.2	44.3	34.4	33.3	54.6	32.5	38.1	39.1	13.9	
Progression Factor	1.00	1.00	1.00	0.75	0.66	0.73	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	29.5	7.4	0.0	0.6	2.0	3.2	207.3	0.8	12.0	22.3	0.2	
Delay (s)	79.7	48.6	34.2	33.8	24.9	27.4	261.9	33.3	50.1	61.3	14.1	
Level of Service	E	D	C	C	C	C	F	C	D	E	B	
Approach Delay (s)		52.5			27.2			52.5			52.1	
Approach LOS		D			C			D			D	

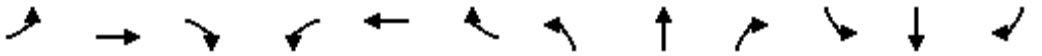
Intersection Summary			
HCM Average Control Delay	43.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	110	1221	800	279	163	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1497	1770	1548
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1497	1770	1548
Peak-hour factor, PHF	0.93	0.93	0.90	0.90	0.86	0.86
Adj. Flow (vph)	118	1313	889	310	190	47
RTOR Reduction (vph)	0	0	0	46	0	40
Lane Group Flow (vph)	118	1313	889	264	190	7
Confl. Peds. (#/hr)				8		4
Confl. Bikes (#/hr)				13		2
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.6	84.9	68.3	68.3	17.1	17.1
Effective Green, g (s)	12.6	84.9	68.3	68.3	17.1	17.1
Actuated g/C Ratio	0.11	0.77	0.62	0.62	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	203	2731	2197	930	275	241
v/s Ratio Prot	c0.07	c0.37	0.25		c0.11	
v/s Ratio Perm				0.18		0.00
v/c Ratio	0.58	0.48	0.40	0.28	0.69	0.03
Uniform Delay, d1	46.2	4.6	10.6	9.6	43.9	39.4
Progression Factor	1.06	0.41	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.4	0.6	0.8	7.3	0.1
Delay (s)	51.5	2.2	11.1	10.4	51.2	39.5
Level of Service	D	A	B	B	D	D
Approach Delay (s)		6.3	10.9		48.9	
Approach LOS		A	B		D	

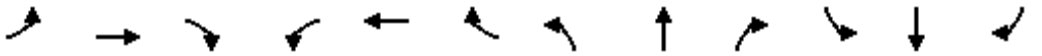
Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	1023	360	39	953	79	145	45	29	108	90	175
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.97	1.00	1.00	0.95	1.00	1.00	0.97	1.00	1.00	0.90
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1528	1770	3539	1481	1770	1863	1531	1719	1863	1423
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1528	1770	3539	1481	1770	1863	1531	1719	1863	1423
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.80	0.80	0.80
Adj. Flow (vph)	128	1137	400	42	1036	86	161	50	32	135	112	219
RTOR Reduction (vph)	0	0	42	0	0	10	0	0	25	0	0	132
Lane Group Flow (vph)	128	1137	358	42	1036	76	161	50	7	135	112	87
Confl. Peds. (#/hr)			4			9			4			16
Confl. Bikes (#/hr)		1	5		1	2		2	12		11	44
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	2%	2%	2%	5%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.6	43.7	43.7	3.1	35.2	35.2	13.3	16.5	16.5	10.0	13.2	13.2
Effective Green, g (s)	11.6	43.7	43.7	3.1	35.2	35.2	13.3	16.5	16.5	10.0	13.2	13.2
Actuated g/C Ratio	0.13	0.49	0.49	0.03	0.39	0.39	0.15	0.18	0.18	0.11	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	230	1732	748	61	1395	584	264	344	283	192	275	210
v/s Ratio Prot	c0.07	c0.32		0.02	c0.29		c0.09	c0.03		0.08	0.06	
v/s Ratio Perm			0.23			0.05			0.00			c0.06
v/c Ratio	0.56	0.66	0.48	0.69	0.74	0.13	0.61	0.15	0.02	0.70	0.41	0.41
Uniform Delay, d1	36.4	17.2	15.2	42.6	23.2	17.3	35.6	30.5	29.8	38.2	34.5	34.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.9	0.9	0.5	27.7	2.2	0.1	4.0	0.2	0.0	11.1	1.0	1.3
Delay (s)	39.3	18.1	15.7	70.3	25.3	17.4	39.5	30.7	29.8	49.3	35.5	35.9
Level of Service	D	B	B	E	C	B	D	C	C	D	D	D
Approach Delay (s)		19.1			26.4			36.4			39.7	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM Average Control Delay	25.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	24.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



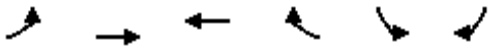
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	889	185	162	781	44	170	130	65	58	205	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.91	1.00	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	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	3539	1519	1770	3539	1417	1703	1759	1444	1770	3343	1529
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	3539	1519	1770	3539	1417	1703	1759	1444	1770	3343	1529
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	33	988	206	180	868	49	191	146	73	64	228	67
RTOR Reduction (vph)	0	0	25	0	0	19	0	0	45	0	0	38
Lane Group Flow (vph)	33	988	181	180	868	30	191	146	28	64	228	29
Confl. Peds. (#/hr)			3			4			4			13
Confl. Bikes (#/hr)		2	8		3	5		2	73		71	1
Heavy Vehicles (%)	7%	2%	4%	2%	2%	10%	6%	8%	2%	2%	8%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.2	32.1	32.1	13.0	41.9	41.9	14.1	20.3	20.3	6.4	12.6	12.6
Effective Green, g (s)	3.2	32.1	32.1	13.0	41.9	41.9	14.1	20.3	20.3	6.4	12.6	12.6
Actuated g/C Ratio	0.04	0.37	0.37	0.15	0.48	0.48	0.16	0.23	0.23	0.07	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	61	1294	555	262	1689	676	273	407	334	129	480	219
v/s Ratio Prot	0.02	c0.28		c0.10	0.25		c0.11	0.08		0.04	c0.07	
v/s Ratio Perm			0.12			0.02			0.02			0.02
v/c Ratio	0.54	0.76	0.33	0.69	0.51	0.04	0.70	0.36	0.09	0.50	0.47	0.13
Uniform Delay, d1	41.6	24.5	20.1	35.5	15.9	12.3	34.8	28.3	26.5	39.1	34.6	32.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.4	2.7	0.3	7.3	0.3	0.0	7.6	0.5	0.1	3.0	0.7	0.3
Delay (s)	51.0	27.2	20.4	42.8	16.2	12.3	42.5	28.8	26.6	42.1	35.3	33.1
Level of Service	D	C	C	D	B	B	D	C	C	D	D	C
Approach Delay (s)		26.7			20.4			34.8			36.1	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	87.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	904	215	243	778	150	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.95	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1498	1770	3539	1770	1562
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1498	1770	3539	1770	1562
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1004	239	270	864	167	229
RTOR Reduction (vph)	0	31	0	0	0	196
Lane Group Flow (vph)	1004	208	270	864	167	33
Confl. Peds. (#/hr)		8				
Confl. Bikes (#/hr)		14				1
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	27.4	27.4	15.4	46.8	11.1	11.1
Effective Green, g (s)	27.4	27.4	15.4	46.8	11.1	11.1
Actuated g/C Ratio	0.35	0.35	0.20	0.60	0.14	0.14
Clearance Time (s)	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
Lane Grp Cap (vph)	1242	526	349	2121	252	222
v/s Ratio Prot	c0.28		c0.15	0.24	c0.09	
v/s Ratio Perm		0.14				0.02
v/c Ratio	0.81	0.40	0.77	0.41	0.66	0.15
Uniform Delay, d1	23.0	19.1	29.7	8.3	31.7	29.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	0.5	10.2	0.1	6.4	0.3
Delay (s)	26.9	19.6	39.9	8.4	38.1	29.7
Level of Service	C	B	D	A	D	C
Approach Delay (s)	25.5			15.9	33.2	
Approach LOS	C			B	C	

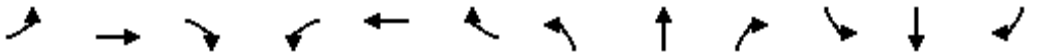
Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	78.1	Sum of lost time (s)	24.2
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	45	1065	936	184	218	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1458	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1458	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	1183	1040	204	242	94
RTOR Reduction (vph)	0	0	0	16	0	72
Lane Group Flow (vph)	50	1183	1040	188	242	22
Confl. Peds. (#/hr)				11		
Confl. Bikes (#/hr)			15			
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	3.9	38.7	30.8	30.8	16.4	16.4
Effective Green, g (s)	3.9	38.7	30.8	30.8	16.4	16.4
Actuated g/C Ratio	0.06	0.56	0.45	0.45	0.24	0.24
Clearance Time (s)	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
Lane Grp Cap (vph)	100	1985	1580	651	421	376
v/s Ratio Prot	0.03	c0.33	c0.29		c0.14	
v/s Ratio Perm				0.13		0.01
v/c Ratio	0.50	0.60	0.66	0.29	0.57	0.06
Uniform Delay, d1	31.6	10.0	15.0	12.1	23.2	20.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	0.5	1.0	0.2	1.9	0.1
Delay (s)	35.5	10.5	16.0	12.4	25.1	20.4
Level of Service	D	B	B	B	C	C
Approach Delay (s)		11.5	15.4		23.8	
Approach LOS		B	B		C	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	69.0	Sum of lost time (s)	17.9
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)	30	1123	130	395	980	103	60	75	210	296	190	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.96	1.00	1.00	0.97	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1538	3400	3539	1517	1752	1863	1517	1770	1863	1432
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1538	3400	3539	1517	1752	1863	1517	1770	1863	1432
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.90	0.90	0.90
Adj. Flow (vph)	33	1248	144	439	1089	114	71	88	247	329	211	89
RTOR Reduction (vph)	0	0	18	0	0	8	0	0	195	0	0	23
Lane Group Flow (vph)	33	1248	126	439	1089	106	71	88	52	329	211	66
Confl. Peds. (#/hr)			2			6			10			20
Confl. Bikes (#/hr)			2		3	2						9
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	3%	2%	3%	2%	2%	6%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.4	44.0	44.0	16.5	57.1	57.1	7.3	11.7	11.7	23.1	27.5	27.5
Effective Green, g (s)	3.4	44.0	44.0	16.5	57.1	57.1	7.3	11.7	11.7	23.1	27.5	27.5
Actuated g/C Ratio	0.03	0.40	0.40	0.15	0.51	0.51	0.07	0.11	0.11	0.21	0.25	0.25
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	54	1399	608	504	1816	778	115	196	159	367	460	354
v/s Ratio Prot	0.02	c0.35		c0.13	0.31		0.04	0.05		c0.19	c0.11	
v/s Ratio Perm			0.08			0.07			0.03			0.05
v/c Ratio	0.61	0.89	0.21	0.87	0.60	0.14	0.62	0.45	0.33	0.90	0.46	0.19
Uniform Delay, d1	53.3	31.4	22.2	46.4	19.1	14.2	50.6	46.8	46.1	42.9	35.6	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	18.7	7.6	0.2	15.1	0.5	0.1	9.5	1.6	1.2	23.3	0.7	0.3
Delay (s)	72.0	39.0	22.3	61.5	19.6	14.3	60.1	48.4	47.4	66.3	36.3	33.3
Level of Service	E	D	C	E	B	B	E	D	D	E	D	C
Approach Delay (s)		38.1			30.4			49.8			51.5	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	38.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	111.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

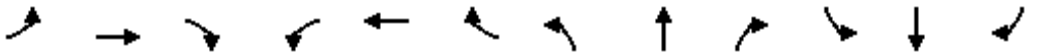
c Critical Lane Group

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	61	120	1368	80	65	1254	94	94	39	95	172	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.95		1.00	0.96
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	0.89		1.00	0.90
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	3488		1770	3476		1770	1587		1770	1610
Flt Permitted		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)		1770	3488		1770	3476		1770	1587		1770	1610
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.80
Adj. Flow (vph)	68	133	1520	89	72	1393	104	111	46	112	215	88
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	201	1609	0	72	1497	0	111	158	0	215	244
Confl. Peds. (#/hr)				30			30			30		
Confl. Bikes (#/hr)				5			1					
Turn Type	Prot	Prot			Prot			Prot			Prot	
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases												
Actuated Green, G (s)		11.0	47.1		5.0	41.1		11.4	14.4		14.8	17.8
Effective Green, g (s)		11.0	47.1		5.0	41.1		11.4	14.4		14.8	17.8
Actuated g/C Ratio		0.11	0.48		0.05	0.42		0.12	0.15		0.15	0.18
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)		200	1688		91	1468		207	235		269	295
v/s Ratio Prot		c0.11	0.46		0.04	c0.43		0.06	0.10		c0.12	c0.15
v/s Ratio Perm												
v/c Ratio		1.00	0.95		0.79	1.02		0.54	0.67		0.80	0.83
Uniform Delay, d1		43.1	24.0		45.6	28.1		40.5	39.2		39.8	38.3
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		64.9	12.5		36.1	28.6		2.7	7.4		15.2	17.0
Delay (s)		108.1	36.6		81.7	56.7		43.1	46.6		55.0	55.3
Level of Service		F	D		F	E		D	D		E	E
Approach Delay (s)			44.5			57.8			45.2			55.2
Approach LOS			D			E			D			E

Intersection Summary			
HCM Average Control Delay	50.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	97.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	125
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.80
Adj. Flow (vph)	156
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	30
Confl. Bikes (#/hr)	3
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	69	315	90	55	120	135	20	94	45	120	114	54
Peak Hour Factor	0.85	0.85	0.85	0.73	0.73	0.73	0.64	0.64	0.64	0.87	0.87	0.87
Hourly flow rate (vph)	81	371	106	75	164	185	31	147	70	138	131	62

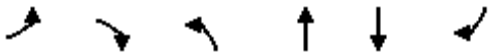
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	81	476	75	349	178	70	269	62
Volume Left (vph)	81	0	75	0	31	0	138	0
Volume Right (vph)	0	106	0	185	0	70	0	62
Hadj (s)	0.53	-0.12	0.53	-0.32	0.17	-0.67	0.30	-0.67
Departure Headway (s)	7.9	7.3	8.2	7.3	8.4	7.6	8.3	7.3
Degree Utilization, x	0.18	0.96	0.17	0.71	0.42	0.15	0.62	0.13
Capacity (veh/h)	438	476	425	472	405	453	424	472
Control Delay (s)	11.5	57.7	11.7	25.4	16.1	10.7	22.8	10.2
Approach Delay (s)	51.0		22.9		14.6		20.4	
Approach LOS	F		C		B		C	

Intersection Summary				
Delay	31.1			
HCM Level of Service	D			
Intersection Capacity Utilization	54.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	215	230	135	360	215	55
Peak Hour Factor	0.80	0.80	0.79	0.79	0.57	0.57
Hourly flow rate (vph)	269	288	171	456	377	96

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total (vph)	269	288	171	456	474
Volume Left (vph)	0	0	171	0	377
Volume Right (vph)	0	288	0	0	96
Hadj (s)	0.03	-0.67	0.53	0.03	0.07
Departure Headway (s)	7.6	6.8	7.9	7.4	6.8
Degree Utilization, x	0.57	0.55	0.37	0.93	0.89
Capacity (veh/h)	454	502	447	477	517
Control Delay (s)	18.8	16.6	14.4	51.9	43.0
Approach Delay (s)	17.7		41.7		43.0
Approach LOS	C		E		E

Intersection Summary			
Delay	34.0		
HCM Level of Service	D		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	203	105	115	143	286	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.94	1.00	1.00	1.00	0.93
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1487	1770	1792	1863	1475
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1487	1770	1792	1863	1475
Peak-hour factor, PHF	0.80	0.80	0.83	0.83	0.78	0.78
Adj. Flow (vph)	254	131	139	172	367	588
RTOR Reduction (vph)	0	102	0	0	0	352
Lane Group Flow (vph)	254	29	139	172	367	236
Confl. Peds. (#/hr)	66					15
Confl. Bikes (#/hr)		24		17	2	31
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	9.7	9.7	4.8	26.6	17.8	17.8
Effective Green, g (s)	9.7	9.7	4.8	26.6	17.8	17.8
Actuated g/C Ratio	0.22	0.22	0.11	0.60	0.40	0.40
Clearance Time (s)	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
Lane Grp Cap (vph)	388	326	192	1076	749	593
v/s Ratio Prot	c0.14		c0.08	0.10	c0.20	
v/s Ratio Perm		0.02				0.16
v/c Ratio	0.65	0.09	0.72	0.16	0.49	0.40
Uniform Delay, d1	15.8	13.8	19.1	3.9	9.9	9.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.9	0.1	12.7	0.1	0.5	0.4
Delay (s)	19.7	13.9	31.8	4.0	10.4	9.9
Level of Service	B	B	C	A	B	A
Approach Delay (s)	17.7			16.4	10.1	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	44.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	43.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	45	34	150	50	29	152
Peak Hour Factor	0.65	0.65	0.89	0.89	0.74	0.74
Hourly flow rate (vph)	69	52	169	56	39	205

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	122	169	56	39	205
Volume Left (vph)	69	0	0	39	0
Volume Right (vph)	52	0	56	0	0
Hadj (s)	-0.11	0.03	-0.67	0.53	0.14
Departure Headway (s)	4.9	5.1	4.4	5.6	5.2
Degree Utilization, x	0.16	0.24	0.07	0.06	0.29
Capacity (veh/h)	681	685	788	624	678
Control Delay (s)	8.8	8.5	6.5	7.7	9.1
Approach Delay (s)	8.8	8.0		8.9	
Approach LOS	A	A		A	

Intersection Summary			
Delay	8.5		
HCM Level of Service	A		
Intersection Capacity Utilization	27.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	339	15	40	349	40	15	40	25	60	85	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.92		1.00	0.98		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		0.99	1.00		0.99	1.00		0.98	1.00
Satd. Flow (prot)		1855	1287		1853	1422		1692	1547		1803	1366
Flt Permitted		0.90	1.00		0.82	1.00		0.91	1.00		0.86	1.00
Satd. Flow (perm)		1668	1287		1535	1422		1557	1547		1579	1366
Peak-hour factor, PHF	0.69	0.69	0.69	0.73	0.73	0.73	0.71	0.71	0.71	0.63	0.63	0.63
Adj. Flow (vph)	42	491	22	55	478	55	21	56	35	95	135	46
RTOR Reduction (vph)	0	0	13	0	0	33	0	0	21	0	0	28
Lane Group Flow (vph)	0	533	9	0	533	22	0	77	14	0	230	18
Confl. Peds. (#/hr)	12		3	3		12	9		1	1		9
Confl. Bikes (#/hr)		1	56		4	45		2	2		1	88
Heavy Vehicles (%)	2%	2%	16%	2%	2%	5%	20%	7%	2%	2%	4%	5%
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		667	515		614	569		623	619		632	546
v/s Ratio Prot												
v/s Ratio Perm		0.32	0.01		c0.35	0.02		0.05	0.01		c0.15	0.01
v/c Ratio		0.80	0.02		0.87	0.04		0.12	0.02		0.36	0.03
Uniform Delay, d1		10.6	7.2		11.0	7.3		7.6	7.3		8.4	7.3
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		9.7	0.1		15.3	0.1		0.4	0.1		1.6	0.1
Delay (s)		20.3	7.3		26.4	7.4		8.0	7.3		10.0	7.4
Level of Service		C	A		C	A		A	A		B	A
Approach Delay (s)		19.8			24.6			7.8			9.6	
Approach LOS		B			C			A			A	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.5%	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)	15	273	85	65	409	30	70	120	35	35	175	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frpb, ped/bikes		1.00	0.95	1.00	0.99			0.99			1.00	0.93
Flpb, ped/bikes		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Frt		1.00	0.85	1.00	0.99			0.98			1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00			0.98			0.99	1.00
Satd. Flow (prot)		1858	1505	1749	1827			1563			1845	1438
Flt Permitted		0.96	1.00	0.41	1.00			0.81			0.91	1.00
Satd. Flow (perm)		1796	1505	750	1827			1292			1691	1438
Peak-hour factor, PHF	0.68	0.68	0.68	0.80	0.80	0.80	0.76	0.76	0.76	0.65	0.65	0.65
Adj. Flow (vph)	22	401	125	81	511	38	92	158	46	54	269	31
RTOR Reduction (vph)	0	0	70	0	6	0	0	13	0	0	0	15
Lane Group Flow (vph)	0	423	55	81	543	0	0	283	0	0	323	16
Confl. Peds. (#/hr)	6		2	2		6	10		9	9		10
Confl. Bikes (#/hr)		2	29		2	110		3	10		8	33
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	2%	2%	14%	2%	2%	5%
Parking (#/hr)								1				
Turn Type	Perm		Perm	Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)		22.0	22.0	22.0	22.0			20.0			20.0	20.0
Effective Green, g (s)		22.0	22.0	22.0	22.0			20.0			20.0	20.0
Actuated g/C Ratio		0.44	0.44	0.44	0.44			0.40			0.40	0.40
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	4.0
Lane Grp Cap (vph)		790	662	330	804			517			676	575
v/s Ratio Prot					c0.30							
v/s Ratio Perm		0.24	0.04	0.11				c0.22			0.19	0.01
v/c Ratio		0.54	0.08	0.25	0.68			0.55			0.48	0.03
Uniform Delay, d1		10.3	8.1	8.8	11.2			11.5			11.1	9.1
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	1.00
Incremental Delay, d2		2.6	0.2	1.8	4.5			4.1			2.4	0.1
Delay (s)		12.9	8.4	10.6	15.7			15.6			13.5	9.2
Level of Service		B	A	B	B			B			B	A
Approach Delay (s)		11.8			15.0			15.6			13.2	
Approach LOS		B			B			B			B	

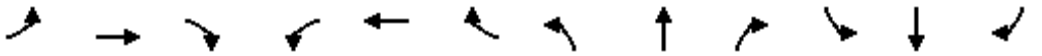
Intersection Summary			
HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	329	225	53	509	85	20	165	66	165	257	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.97			0.98		1.00	1.00	0.94	1.00	1.00	0.90
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.95			0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1703			1762		1597	1776	1398	1770	1863	1429
Flt Permitted		0.96			0.88		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1636			1552		1597	1776	1398	1770	1863	1429
Peak-hour factor, PHF	0.68	0.68	0.68	0.76	0.76	0.76	0.84	0.84	0.84	0.78	0.78	0.78
Adj. Flow (vph)	28	484	331	70	670	112	24	196	79	212	329	63
RTOR Reduction (vph)	0	23	0	0	5	0	0	0	29	0	0	13
Lane Group Flow (vph)	0	820	0	0	847	0	24	196	50	212	329	50
Confl. Peds. (#/hr)	6		7	7		6			13			9
Confl. Bikes (#/hr)			37		14	237			2		2	39
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	13%	7%	8%	2%	2%	2%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		58.6			58.6		2.2	16.4	16.4	14.5	28.7	28.7
Effective Green, g (s)		58.6			58.6		2.2	16.4	16.4	14.5	28.7	28.7
Actuated g/C Ratio		0.58			0.58		0.02	0.16	0.16	0.14	0.28	0.28
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)		945			896		35	287	226	253	527	404
v/s Ratio Prot							0.02	0.11		c0.12	c0.18	
v/s Ratio Perm		0.50			c0.55				0.04			0.04
v/c Ratio		0.87			0.94		0.69	0.68	0.22	0.84	0.62	0.12
Uniform Delay, d1		18.2			19.9		49.3	40.1	37.0	42.4	31.7	27.1
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		8.5			18.0		43.6	6.6	0.5	20.8	2.3	0.1
Delay (s)		26.7			38.0		92.9	46.7	37.5	63.2	34.0	27.2
Level of Service		C			D		F	D	D	E	C	C
Approach Delay (s)		26.7			38.0			48.0			43.5	
Approach LOS		C			D			D			D	

Intersection Summary			
HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	101.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.8%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	118	405	80	75	545	19	60	40	10	59	52	146
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.72	0.72	0.72	0.80	0.80	0.80
Hourly flow rate (vph)	131	450	89	83	606	21	83	56	14	74	65	182

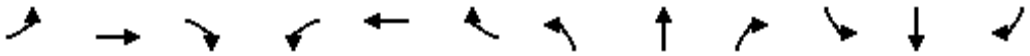
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	131	539	710	139	14	139	183
Volume Left (vph)	131	0	83	83	0	74	0
Volume Right (vph)	0	89	21	0	14	0	183
Hadj (s)	0.53	-0.08	0.06	0.15	-0.36	0.32	-0.63
Departure Headway (s)	7.9	7.2	7.5	9.1	3.2	8.7	7.7
Degree Utilization, x	0.29	1.09	1.49	0.35	0.01	0.33	0.39
Capacity (veh/h)	449	506	481	373	1121	409	459
Control Delay (s)	12.8	90.8	249.8	17.0	6.2	14.7	14.3
Approach Delay (s)	75.5		249.8	16.1		14.5	
Approach LOS	F		F	C		B	

Intersection Summary				
Delay	126.8			
HCM Level of Service	F			
Intersection Capacity Utilization	83.1%	ICU Level of Service		E
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	445	35	65	635	60	15	86	15	60	213	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		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		0.99	1.00		1.00	1.00	
Frt		0.99			0.99		1.00	0.98		1.00	0.96	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3306			3444		1669	1555		1763	1551	
Flt Permitted		1.00			1.00		0.28	1.00		0.67	1.00	
Satd. Flow (perm)		3306			3444		494	1555		1247	1551	
Peak-hour factor, PHF	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Adj. Flow (vph)	45	571	45	83	814	77	19	110	19	77	273	112
RTOR Reduction (vph)	0	7	0	0	8	0	0	8	0	0	20	0
Lane Group Flow (vph)	0	654	0	0	966	0	19	121	0	77	365	0
Confl. Peds. (#/hr)	3		9	9		3	19		3	3		19
Confl. Bikes (#/hr)		1	1			8			2		1	24
Heavy Vehicles (%)	18%	7%	2%	2%	3%	2%	7%	5%	8%	2%	2%	2%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		17.0			24.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		17.0			24.0		22.0	22.0		22.0	22.0	
Actuated g/C Ratio		0.23			0.32		0.29	0.29		0.29	0.29	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		749			1102		145	456		366	455	
v/s Ratio Prot		c0.20			c0.28			0.08			c0.24	
v/s Ratio Perm							0.04			0.06		
v/c Ratio		0.87			0.88		0.13	0.26		0.21	0.80	
Uniform Delay, d1		28.0			24.1		19.5	20.3		20.0	24.5	
Progression Factor		1.00			0.46		1.00	1.00		1.00	1.00	
Incremental Delay, d2		13.4			6.9		1.9	1.4		1.3	13.9	
Delay (s)		41.4			18.0		21.3	21.7		21.3	38.4	
Level of Service		D			B		C	C		C	D	
Approach Delay (s)		41.4			18.0			21.7			35.5	
Approach LOS		D			B			C			D	

Intersection Summary			
HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

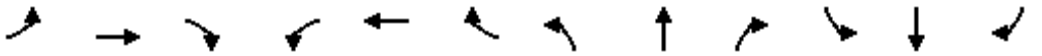
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	335	135	35	730	25	20	30	45	30	30	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.99			1.00		1.00	0.97		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.97	1.00	
Frt		0.96			1.00		1.00	0.91		1.00	0.95	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3220			3503		1589	1402		1690	1358	
Flt Permitted		1.00			1.00		0.71	1.00		0.70	1.00	
Satd. Flow (perm)		3220			3503		1190	1402		1252	1358	
Peak-hour factor, PHF	0.78	0.78	0.78	0.79	0.79	0.79	0.91	0.91	0.91	0.64	0.64	0.64
Adj. Flow (vph)	19	429	173	44	924	32	22	33	49	47	47	23
RTOR Reduction (vph)	0	54	0	0	3	0	0	38	0	0	18	0
Lane Group Flow (vph)	0	567	0	0	997	0	22	44	0	47	52	0
Confl. Peds. (#/hr)	4		7	7		4	4		21	21		4
Confl. Bikes (#/hr)			2		2	9			2		2	10
Heavy Vehicles (%)	18%	6%	5%	2%	2%	9%	13%	7%	6%	4%	14%	22%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		18.0			28.0		17.0	17.0		17.0	17.0	
Effective Green, g (s)		18.0			28.0		17.0	17.0		17.0	17.0	
Actuated g/C Ratio		0.24			0.37		0.23	0.23		0.23	0.23	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		773			1308		270	318		284	308	
v/s Ratio Prot		c0.18			c0.28			0.03			c0.04	
v/s Ratio Perm							0.02			0.04		
v/c Ratio		0.73			0.76		0.08	0.14		0.17	0.17	
Uniform Delay, d1		26.3			20.6		22.8	23.2		23.3	23.3	
Progression Factor		0.97			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.7			4.2		0.6	0.9		1.3	1.2	
Delay (s)		29.3			24.8		23.4	24.1		24.6	24.5	
Level of Service		C			C		C	C		C	C	
Approach Delay (s)		29.3			24.8			23.9			24.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.6%	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 (veh/h)	652	856	127	185	1179	130	50	265	50	80	50	184
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	724	951	141	206	1310	144	56	294	56	89	56	204
Pedestrians								78				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								4.0				
Percent Blockage								7				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		932			1318							
pX, platoon unblocked	0.79						0.79	0.79		0.79	0.79	0.79
vC, conflicting volume	1454			1029			3776	4344	554	3865	4271	727
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1031			1029			3989	4712	554	4102	4620	105
tC, single (s)	4.1			4.1			7.6	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	0			67			0	0	88	0	0	72
cM capacity (veh/h)	526			627			0	0	445	0	0	730

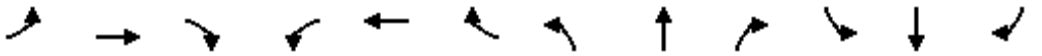
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	724	476	476	141	206	873	581	350	56	144	204	
Volume Left	724	0	0	0	206	0	0	56	0	89	0	
Volume Right	0	0	0	141	0	0	144	0	56	0	204	
cSH	526	1700	1700	1700	627	1700	1700	0	445	0	730	
Volume to Capacity	1.38	0.28	0.28	0.08	0.33	0.51	0.34	Err	0.12	Err	0.28	
Queue Length 95th (ft)	827	0	0	0	36	0	0	Err	11	Err	29	
Control Delay (s)	204.2	0.0	0.0	0.0	13.5	0.0	0.0	Err	14.2	Err	11.8	
Lane LOS	F				B			F	B	F	B	
Approach Delay (s)	81.4				1.7			Err		Err		
Approach LOS								F		F		

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	110.0%	ICU Level of Service	H	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	942	44	60	1426	68	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.81	0.81
Hourly flow rate (vph)	1047	49	67	1584	84	6
Pedestrians	73			73	73	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	6			6	6	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				724		
pX, platoon unblocked					0.73	
vC, conflicting volume			1169		2143	694
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1169		1820	694
tC, single (s)			4.1		6.9	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		0	98
cM capacity (veh/h)			557		38	340

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	698	398	67	792	792	90
Volume Left	0	0	67	0	0	84
Volume Right	0	49	0	0	0	6
cSH	1700	1700	557	1700	1700	41
Volume to Capacity	0.41	0.23	0.12	0.47	0.47	2.20
Queue Length 95th (ft)	0	0	10	0	0	241
Control Delay (s)	0.0	0.0	12.3	0.0	0.0	763.0
Lane LOS			B			F
Approach Delay (s)	0.0		0.5			763.0
Approach LOS						F

Intersection Summary			
Average Delay	24.5		
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	305	474	168	80	938	255	193	205	70	170	315	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.66	1.00	1.00	0.98	1.00	1.00	0.93	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	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1023	1736	3539	1558	1752	1712	1476	1752	1827	1547
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1023	1736	3539	1558	1752	1712	1476	1752	1827	1547
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	339	527	187	89	1042	283	214	228	78	189	350	394
RTOR Reduction (vph)	0	0	112	0	0	61	0	0	25	0	0	248
Lane Group Flow (vph)	339	527	75	89	1042	222	214	228	53	189	350	146
Confl. Peds. (#/hr)			116			1			38			1
Confl. Bikes (#/hr)			2			3						9
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%	3%	11%	2%	3%	4%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	17.0	36.2	36.2	7.6	26.8	26.8	11.0	20.2	20.2	10.0	19.2	19.2
Effective Green, g (s)	17.0	36.2	36.2	7.6	26.8	26.8	11.0	20.2	20.2	10.0	19.2	19.2
Actuated g/C Ratio	0.19	0.40	0.40	0.08	0.30	0.30	0.12	0.22	0.22	0.11	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	334	1423	411	147	1054	464	214	384	331	195	390	330
v/s Ratio Prot	c0.19	0.15		0.05	c0.29		c0.12	0.13		0.11	c0.19	
v/s Ratio Perm			0.07			0.14			0.04			0.09
v/c Ratio	1.01	0.37	0.18	0.61	0.99	0.48	1.00	0.59	0.16	0.97	0.90	0.44
Uniform Delay, d1	36.5	18.9	17.4	39.8	31.4	25.9	39.5	31.2	28.1	39.8	34.4	30.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	53.1	0.2	0.2	6.9	24.7	0.8	61.5	2.5	0.2	54.9	22.4	1.0
Delay (s)	89.6	19.1	17.6	46.6	56.1	26.7	101.0	33.7	28.3	94.7	56.8	31.7
Level of Service	F	B	B	D	E	C	F	C	C	F	E	C
Approach Delay (s)		41.5			49.6			60.6			53.9	
Approach LOS		D			D			E			D	

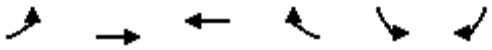
Intersection Summary			
HCM Average Control Delay	49.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	664	50	55	1198	75	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.93	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	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3505	1466	1770	3539	1770	1558
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3505	1466	1770	3539	1770	1558
Peak-hour factor, PHF	0.85	0.85	0.90	0.90	0.47	0.47
Adj. Flow (vph)	781	59	61	1331	160	106
RTOR Reduction (vph)	0	24	0	0	0	68
Lane Group Flow (vph)	781	35	61	1331	160	38
Confl. Peds. (#/hr)		19				
Confl. Bikes (#/hr)		4				3
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	33.5	33.5	7.1	44.6	13.4	13.4
Effective Green, g (s)	33.5	33.5	7.1	44.6	13.4	13.4
Actuated g/C Ratio	0.39	0.39	0.08	0.52	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	1361	569	146	1829	275	242
v/s Ratio Prot	0.22		0.03	c0.38	c0.09	
v/s Ratio Perm		0.02				0.02
v/c Ratio	0.57	0.06	0.42	0.73	0.58	0.16
Uniform Delay, d1	20.8	16.5	37.6	16.1	33.8	31.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	1.9	1.5	3.1	0.3
Delay (s)	21.4	16.6	39.6	17.6	37.0	31.9
Level of Service	C	B	D	B	D	C
Approach Delay (s)	21.0			18.6	34.9	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	28.3
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

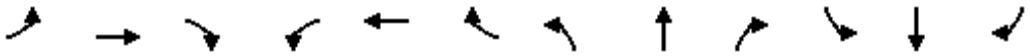
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	79	725	971	95	155	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.97	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1719	3539	3505	1521	1770	1537
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1719	3539	3505	1521	1770	1537
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	88	806	1079	106	172	203
RTOR Reduction (vph)	0	0	0	18	0	113
Lane Group Flow (vph)	88	806	1079	88	172	90
Confl. Peds. (#/hr)				4		13
Confl. Bikes (#/hr)				2		1
Heavy Vehicles (%)	5%	2%	3%	3%	2%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.3	41.6	30.3	30.3	13.3	13.3
Effective Green, g (s)	7.3	41.6	30.3	30.3	13.3	13.3
Actuated g/C Ratio	0.11	0.60	0.44	0.44	0.19	0.19
Clearance Time (s)	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
Lane Grp Cap (vph)	182	2140	1544	670	342	297
v/s Ratio Prot	c0.05	0.23	c0.31		c0.10	
v/s Ratio Perm				0.06		0.06
v/c Ratio	0.48	0.38	0.70	0.13	0.50	0.30
Uniform Delay, d1	29.0	7.0	15.6	11.4	24.8	23.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	0.1	1.4	0.1	1.2	0.6
Delay (s)	31.0	7.1	17.0	11.5	26.0	24.4
Level of Service	C	A	B	B	C	C
Approach Delay (s)		9.4	16.5		25.1	
Approach LOS		A	B		C	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	68.8	Sum of lost time (s)	17.9
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 (veh/h)	5	835	35	35	991	5	70	5	50	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.90	0.90	0.90	0.25	0.25	0.25
Hourly flow rate (vph)	5	888	37	39	1101	6	78	6	56	20	20	20
Pedestrians								12				
Lane Width (ft)								12.0				
Walking Speed (ft/s)								4.0				
Percent Blockage								1				
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		903										
pX, platoon unblocked				0.92			0.92	0.92	0.92	0.92	0.92	
vC, conflicting volume	1107			938			1588	2114	475	1695	2130	553
vC1, stage 1 conf vol							930	930		1182	1182	
vC2, stage 2 conf vol							658	1184		513	948	
vCu, unblocked vol	1107			755			1463	2036	251	1579	2053	553
tC, single (s)	4.1			4.3			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)							6.5	5.5		6.5	5.5	
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			68	97	92	89	90	96
cM capacity (veh/h)	627			728			243	202	675	179	197	476

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	NB 1	SB 1
Volume Total	5	592	333	589	556	139	60
Volume Left	5	0	0	39	0	78	20
Volume Right	0	0	37	0	6	56	20
cSH	627	1700	1700	728	1700	323	235
Volume to Capacity	0.01	0.35	0.20	0.05	0.33	0.43	0.26
Queue Length 95th (ft)	1	0	0	4	0	52	25
Control Delay (s)	10.8	0.0	0.0	1.4	0.0	24.3	25.5
Lane LOS	B			A		C	D
Approach Delay (s)	0.1			0.7		24.3	25.5
Approach LOS						C	D

Intersection Summary				
Average Delay	2.5			
Intersection Capacity Utilization	71.8%	ICU Level of Service	C	
Analysis Period (min)	15			

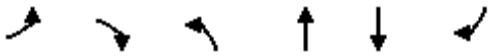
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	626	234	20	853	169	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.96	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1526	1444	1845	1770	1562
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1526	1444	1845	1770	1562
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.68	0.68
Adj. Flow (vph)	696	260	22	948	249	51
RTOR Reduction (vph)	0	53	0	0	0	12
Lane Group Flow (vph)	696	207	22	948	249	39
Confl. Peds. (#/hr)		7				1
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	2%	2%	25%	3%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	43.1	43.1	1.9	49.0	16.1	16.1
Effective Green, g (s)	43.1	43.1	1.9	49.0	16.1	16.1
Actuated g/C Ratio	0.59	0.59	0.03	0.67	0.22	0.22
Clearance Time (s)	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
Lane Grp Cap (vph)	2087	900	38	1237	390	344
v/s Ratio Prot	0.20		0.02	c0.51	c0.14	
v/s Ratio Perm		0.14				0.02
v/c Ratio	0.33	0.23	0.58	0.77	0.64	0.11
Uniform Delay, d1	7.7	7.1	35.2	8.2	25.9	22.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1	19.6	2.9	3.4	0.1
Delay (s)	7.8	7.3	54.8	11.1	29.3	22.9
Level of Service	A	A	D	B	C	C
Approach Delay (s)	7.6			12.1	28.2	
Approach LOS	A			B	C	

Intersection Summary			
HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	616	45	60	673	200	195
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1549	1770	1827	1719	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1549	1770	1827	1719	1583
Peak-hour factor, PHF	0.92	0.92	0.90	0.90	0.90	0.90
Adj. Flow (vph)	670	49	67	748	222	217
RTOR Reduction (vph)	0	28	0	0	0	163
Lane Group Flow (vph)	670	21	67	748	222	54
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	2%	2%	2%	4%	5%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	22.5	22.5	4.6	31.1	12.9	12.9
Effective Green, g (s)	22.5	22.5	4.6	31.1	12.9	12.9
Actuated g/C Ratio	0.43	0.43	0.09	0.60	0.25	0.25
Clearance Time (s)	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
Lane Grp Cap (vph)	1531	670	157	1093	426	393
v/s Ratio Prot	0.19		0.04	c0.41	c0.13	
v/s Ratio Perm		0.01				0.03
v/c Ratio	0.44	0.03	0.43	0.68	0.52	0.14
Uniform Delay, d1	10.3	8.5	22.5	7.1	16.9	15.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	1.9	1.8	1.2	0.2
Delay (s)	10.5	8.5	24.3	8.9	18.0	15.4
Level of Service	B	A	C	A	B	B
Approach Delay (s)	10.4			10.2	16.7	
Approach LOS	B			B	B	

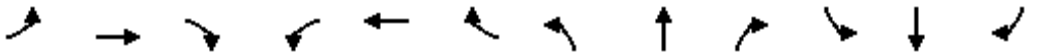
Intersection Summary			
HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	52.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	25	365	380	773	926	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	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
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1583	1703	1845	3539	1481
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1583	1703	1845	3539	1481
Peak-hour factor, PHF	0.93	0.93	0.90	0.90	0.90	0.90
Adj. Flow (vph)	27	392	422	859	1029	67
RTOR Reduction (vph)	0	345	0	0	0	41
Lane Group Flow (vph)	27	47	422	859	1029	26
Confl. Peds. (#/hr)						8
Confl. Bikes (#/hr)					5	
Heavy Vehicles (%)	2%	2%	6%	3%	2%	5%
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	8.5	8.5	22.7	54.2	27.5	27.5
Effective Green, g (s)	8.5	8.5	22.7	54.2	27.5	27.5
Actuated g/C Ratio	0.12	0.12	0.32	0.77	0.39	0.39
Clearance Time (s)	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
Lane Grp Cap (vph)	213	190	547	1414	1377	576
v/s Ratio Prot	0.02		c0.25	0.47	c0.29	
v/s Ratio Perm		c0.03				0.02
v/c Ratio	0.13	0.25	0.77	0.61	0.75	0.05
Uniform Delay, d1	27.8	28.2	21.7	3.6	18.6	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.7	6.7	0.7	2.3	0.0
Delay (s)	28.1	28.9	28.3	4.3	20.9	13.5
Level of Service	C	C	C	A	C	B
Approach Delay (s)	28.8			12.2	20.4	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	70.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.0%	ICU Level of Service	B
Analysis Period (min)	15		

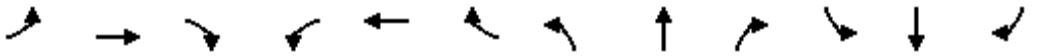
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	25	250	15	25	20	565	1214	20	65	1177	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.99		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		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1667	1511	1530	1668		1752	3458		1770	3539	1466
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1667	1511	1530	1668		1752	3458		1770	3539	1466
Peak-hour factor, PHF	0.84	0.84	0.84	0.82	0.82	0.82	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	58	30	298	18	30	24	628	1349	22	72	1308	77
RTOR Reduction (vph)	0	0	262	0	22	0	0	1	0	0	0	50
Lane Group Flow (vph)	58	30	36	18	32	0	628	1370	0	72	1308	27
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)			3		7	6						8
Heavy Vehicles (%)	2%	14%	5%	18%	5%	5%	3%	4%	13%	2%	2%	7%
Turn Type	Prot		Perm	Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	3.6	10.0	10.0	1.5	7.9		26.2	50.6		4.7	29.1	29.1
Effective Green, g (s)	3.6	10.0	10.0	1.5	7.9		26.2	50.6		4.7	29.1	29.1
Actuated g/C Ratio	0.04	0.12	0.12	0.02	0.10		0.32	0.61		0.06	0.35	0.35
Clearance Time (s)	4.0	4.0	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	3.0	3.0
Lane Grp Cap (vph)	77	201	182	28	159		554	2113		100	1244	515
v/s Ratio Prot	c0.03	0.02		0.01	0.02		c0.36	0.40		0.04	c0.37	
v/s Ratio Perm			c0.02									0.02
v/c Ratio	0.75	0.15	0.20	0.64	0.20		1.13	0.65		0.72	1.05	0.05
Uniform Delay, d1	39.2	32.6	32.8	40.4	34.5		28.3	10.4		38.4	26.8	17.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	33.5	0.3	0.5	40.9	0.6		80.7	0.7		21.9	40.2	0.0
Delay (s)	72.6	32.9	33.3	81.3	35.2		109.0	11.1		60.3	67.0	17.8
Level of Service	E	C	C	F	D		F	B		E	E	B
Approach Delay (s)		39.2			46.7			41.8			64.1	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	49.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	82.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	505	150	105	20	55	359	15	1068	75	169	299	425
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3438	1488	1770	1863	1557	1770	3471	1560	1736	3438	1533
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3438	1488	1770	1863	1557	1770	3471	1560	1736	3438	1533
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	532	158	111	22	61	399	17	1187	83	188	332	472
RTOR Reduction (vph)	0	0	82	0	0	117	0	0	11	0	0	287
Lane Group Flow (vph)	532	158	29	22	61	282	17	1187	72	188	332	185
Confl. Peds. (#/hr)			2						1			
Confl. Bikes (#/hr)					1	3			2		2	1
Heavy Vehicles (%)	2%	5%	7%	2%	2%	2%	2%	4%	2%	4%	5%	4%
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	20.8	20.8	20.8	11.0	11.0	11.0	0.8	26.2	26.2	6.0	31.4	31.4
Effective Green, g (s)	20.8	20.8	20.8	11.0	11.0	11.0	0.8	26.2	26.2	6.0	31.4	31.4
Actuated g/C Ratio	0.26	0.26	0.26	0.14	0.14	0.14	0.01	0.33	0.33	0.08	0.39	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	460	894	387	243	256	214	18	1137	511	130	1349	602
v/s Ratio Prot	c0.30	0.05		0.01	0.03		0.01	c0.34		c0.11	0.10	
v/s Ratio Perm			0.02			c0.18			0.05			0.12
v/c Ratio	1.16	0.18	0.07	0.09	0.24	1.32	0.94	1.04	0.14	1.45	0.25	0.31
Uniform Delay, d1	29.6	23.0	22.3	30.1	30.8	34.5	39.6	26.9	19.0	37.0	16.3	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	92.5	0.4	0.4	0.2	0.5	171.4	183.9	38.9	0.1	238.5	0.1	0.3
Delay (s)	122.1	23.4	22.7	30.3	31.2	205.9	223.5	65.8	19.1	275.5	16.4	17.1
Level of Service	F	C	C	C	C	F	F	E	B	F	B	B
Approach Delay (s)		88.8			175.8			64.9			65.8	
Approach LOS		F			F			E			E	

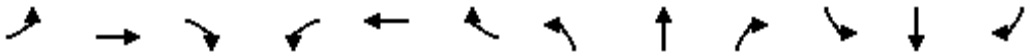
Intersection Summary			
HCM Average Control Delay	85.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	84	30	572	39	10	712
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.93	0.93
Hourly flow rate (vph)	91	33	622	42	11	766
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		7				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1409	622			664	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1409	622			664	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	40	93			99	
cM capacity (veh/h)	151	487			925	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	124	622	42	11	766
Volume Left	91	0	0	11	0
Volume Right	33	0	42	0	0
cSH	205	1700	1700	925	1700
Volume to Capacity	0.60	0.37	0.02	0.01	0.45
Queue Length 95th (ft)	86	0	0	1	0
Control Delay (s)	47.5	0.0	0.0	8.9	0.0
Lane LOS	E			A	
Approach Delay (s)	47.5	0.0		0.1	
Approach LOS	E				

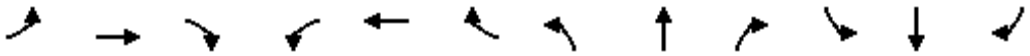
Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	5	30	94	0	40	120	541	104	30	716	50
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	6	35	102	0	43	130	588	113	33	778	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								623				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	1720	1833	805	1787	1803	645	833			701		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1738	1860	805	1811	1828	574	833			636		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	28	89	91	0	100	91	84			96		
cM capacity (veh/h)	49	55	382	40	57	479	800			876		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	35	41	102	43	130	701	33	833
Volume Left	35	0	102	0	130	0	33	0
Volume Right	0	35	0	43	0	113	0	54
cSH	49	206	40	479	800	1700	876	1700
Volume to Capacity	0.72	0.20	2.56	0.09	0.16	0.41	0.04	0.49
Queue Length 95th (ft)	72	18	280	7	15	0	3	0
Control Delay (s)	182.8	26.8	923.2	13.3	10.4	0.0	9.3	0.0
Lane LOS	F	D	F	B	B		A	
Approach Delay (s)	98.8		651.6		1.6		0.3	
Approach LOS	F		F					

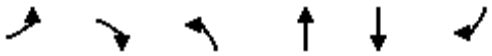
Intersection Summary				
Average Delay	54.3			
Intersection Capacity Utilization	69.2%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	5	10	198	5	150	20	483	99	70	514	120
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	33	6	11	220	6	167	22	537	110	78	571	133
Pedestrians					12							
Lane Width (ft)					12.0							
Walking Speed (ft/s)					4.0							
Percent Blockage					1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1544	1496	638	1389	1508	604	704			659		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1544	1496	638	1389	1508	604	704			659		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	39	95	98	0	95	66	98			91		
cM capacity (veh/h)	54	108	477	102	107	494	893			911		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	33	17	220	172	22	647	78	704
Volume Left	33	0	220	0	22	0	78	0
Volume Right	0	11	0	167	0	110	0	133
cSH	54	223	102	442	893	1700	911	1700
Volume to Capacity	0.61	0.07	2.17	0.39	0.02	0.38	0.09	0.41
Queue Length 95th (ft)	62	6	478	45	2	0	7	0
Control Delay (s)	145.7	22.4	624.6	18.3	9.1	0.0	9.3	0.0
Lane LOS	F	C	F	C	A		A	
Approach Delay (s)	104.6		358.4		0.3		0.9	
Approach LOS	F		F					

Intersection Summary				
Average Delay	77.5			
Intersection Capacity Utilization	65.3%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	20	65	55	488	454	50
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.79	0.79	0.74	0.74	0.70	0.70
Hourly flow rate (vph)	25	82	74	659	649	71
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)					656	
pX, platoon unblocked	0.82	0.82	0.82			
vC, conflicting volume	1492	684	720			
vC1, stage 1 conf vol	684					
vC2, stage 2 conf vol	808					
vCu, unblocked vol	1491	508	551			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	82	91			
cM capacity (veh/h)	319	461	833			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	108	74	659	720
Volume Left	25	74	0	0
Volume Right	82	0	0	71
cSH	417	833	1700	1700
Volume to Capacity	0.26	0.09	0.39	0.42
Queue Length 95th (ft)	25	7	0	0
Control Delay (s)	16.6	9.7	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	16.6	1.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	45.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	170	121	361	25	88	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.91	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1445	1822		1719	1845
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1445	1822		1719	1845
Peak-hour factor, PHF	0.70	0.70	0.83	0.83	0.90	0.90
Adj. Flow (vph)	243	173	435	30	98	456
RTOR Reduction (vph)	0	132	3	0	0	0
Lane Group Flow (vph)	243	41	462	0	98	456
Confl. Peds. (#/hr)				2		
Confl. Bikes (#/hr)		43		18		8
Heavy Vehicles (%)	2%	2%	3%	4%	5%	3%
Turn Type		Perm			Prot	
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	13.0	13.0	18.7		5.2	27.9
Effective Green, g (s)	13.0	13.0	18.7		5.2	27.9
Actuated g/C Ratio	0.24	0.24	0.34		0.09	0.51
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	418	341	618		162	934
v/s Ratio Prot	c0.14		c0.25		0.06	c0.25
v/s Ratio Perm		0.03				
v/c Ratio	0.58	0.12	0.75		0.60	0.49
Uniform Delay, d1	18.6	16.6	16.1		24.0	8.9
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	2.1	0.2	4.9		6.2	0.4
Delay (s)	20.7	16.7	21.0		30.2	9.3
Level of Service	C	B	C		C	A
Approach Delay (s)	19.0		21.0			13.0
Approach LOS	B		C			B

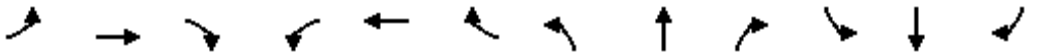
Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	18.2
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	45	115	45	200	54	105	258	60	14	421	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	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	0.95		1.00	0.91	1.00	1.00	0.97	1.00	1.00	0.95
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	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97	1.00		0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1759	1501		1844	1417	1770	1863	1443	1770	1863	1493
Flt Permitted		0.53	1.00		0.92	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		958	1501		1708	1417	1770	1863	1443	1770	1863	1493
Peak-hour factor, PHF	0.92	0.92	0.92	0.88	0.88	0.88	0.82	0.82	0.82	0.93	0.93	0.93
Adj. Flow (vph)	54	49	125	51	227	61	128	315	73	15	453	194
RTOR Reduction (vph)	0	0	101	0	0	44	0	0	33	0	0	107
Lane Group Flow (vph)	0	103	24	0	278	17	128	315	40	15	453	87
Confl. Peds. (#/hr)	2		5	5		2			5			9
Confl. Bikes (#/hr)			13			34		3	11		11	18
Heavy Vehicles (%)	8%	2%	2%	2%	2%	4%	2%	2%	8%	2%	2%	3%
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		9.5	9.5		9.5	9.5	5.4	26.9	26.9	0.6	22.1	22.1
Effective Green, g (s)		9.5	9.5		9.5	9.5	5.4	26.9	26.9	0.6	22.1	22.1
Actuated g/C Ratio		0.19	0.19		0.19	0.19	0.11	0.55	0.55	0.01	0.45	0.45
Clearance Time (s)		4.0	4.0		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	3.0	3.0
Lane Grp Cap (vph)		186	291		331	275	195	1023	792	22	840	673
v/s Ratio Prot							c0.07	0.17		0.01	c0.24	
v/s Ratio Perm		0.11	0.02		c0.16	0.01			0.03			0.06
v/c Ratio		0.55	0.08		0.84	0.06	0.66	0.31	0.05	0.68	0.54	0.13
Uniform Delay, d1		17.8	16.2		19.0	16.1	20.9	6.0	5.1	24.1	9.8	7.8
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.5	0.1		16.8	0.1	7.7	0.2	0.0	62.1	0.7	0.1
Delay (s)		21.4	16.3		35.9	16.2	28.6	6.2	5.2	86.2	10.4	7.9
Level of Service		C	B		D	B	C	A	A	F	B	A
Approach Delay (s)		18.6			32.3			11.6			11.4	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	49.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		

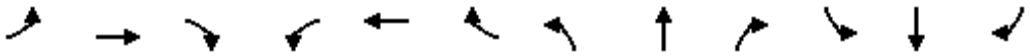
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	235	135	110	320	73	265	285	140	144	342	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.87	1.00	1.00	0.94	1.00	1.00	0.96	1.00	1.00	0.94
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1687	3505	1320	1719	3471	1471	1770	1863	1523	1770	1863	1453
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1687	3505	1320	1719	3471	1471	1770	1863	1523	1770	1863	1453
Peak-hour factor, PHF	0.82	0.82	0.82	0.86	0.86	0.86	0.80	0.80	0.80	0.89	0.89	0.89
Adj. Flow (vph)	61	287	165	128	372	85	331	356	175	162	384	185
RTOR Reduction (vph)	0	0	81	0	0	26	0	0	32	0	0	31
Lane Group Flow (vph)	61	287	84	128	372	59	331	356	143	162	384	154
Confl. Peds. (#/hr)			41			11			16			21
Confl. Bikes (#/hr)			3		1	8			1		1	25
Heavy Vehicles (%)	7%	3%	6%	5%	4%	3%	2%	2%	2%	2%	2%	4%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.3	14.5	14.5	11.0	19.2	19.2	21.0	31.3	31.3	13.0	23.3	23.3
Effective Green, g (s)	6.3	14.5	14.5	11.0	19.2	19.2	21.0	31.3	31.3	13.0	23.3	23.3
Actuated g/C Ratio	0.07	0.17	0.17	0.13	0.22	0.22	0.24	0.36	0.36	0.15	0.27	0.27
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	592	223	220	777	329	433	680	556	268	506	395
v/s Ratio Prot	0.04	0.08		c0.07	c0.11		c0.19	0.19		0.09	c0.21	
v/s Ratio Perm			0.06			0.04			0.09			0.11
v/c Ratio	0.49	0.48	0.38	0.58	0.48	0.18	0.76	0.52	0.26	0.60	0.76	0.39
Uniform Delay, d1	38.2	32.3	31.6	35.2	28.9	26.9	30.1	21.4	19.1	34.0	28.7	25.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.6	1.1	3.9	0.5	0.3	7.8	0.7	0.2	3.8	6.4	0.6
Delay (s)	41.3	32.9	32.7	39.1	29.4	27.2	37.9	22.1	19.3	37.8	35.1	26.1
Level of Service	D	C	C	D	C	C	D	C	B	D	D	C
Approach Delay (s)		33.8			31.2			27.6			33.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	31.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	85.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

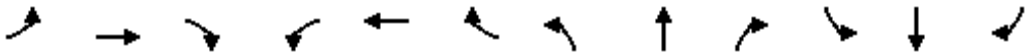
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	45	50	15	25	60	28	20	128	95	19	209	35
Peak Hour Factor	0.75	0.75	0.75	0.69	0.69	0.69	0.83	0.83	0.83	0.65	0.65	0.65
Hourly flow rate (vph)	60	67	20	36	87	41	24	154	114	29	322	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	147	164	293	405
Volume Left (vph)	60	36	24	29
Volume Right (vph)	20	41	114	54
Hadj (s)	0.03	-0.07	-0.18	-0.03
Departure Headway (s)	6.2	6.0	5.3	5.3
Degree Utilization, x	0.25	0.27	0.43	0.60
Capacity (veh/h)	500	511	623	646
Control Delay (s)	11.2	11.3	12.4	15.9
Approach Delay (s)	11.2	11.3	12.4	15.9
Approach LOS	B	B	B	C

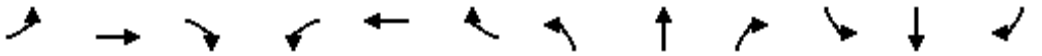
Intersection Summary				
Delay	13.4			
HCM Level of Service	B			
Intersection Capacity Utilization	36.8%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	220	90	40	455	15	65	68	45	35	149	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	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		1.00	1.00	0.95	1.00	0.98	
Flpb, ped/bikes	0.99	1.00		1.00	1.00		1.00	1.00	1.00	0.99	1.00	
Frt	1.00	0.96		1.00	1.00		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1755	1742		1762	1848		1761	1863	1504	1752	1771	
Flt Permitted	0.28	1.00		0.49	1.00		0.49	1.00	1.00	0.71	1.00	
Satd. Flow (perm)	521	1742		913	1848		911	1863	1504	1306	1771	
Peak-hour factor, PHF	0.83	0.83	0.83	0.75	0.75	0.75	0.91	0.91	0.91	0.67	0.67	0.67
Adj. Flow (vph)	12	265	108	53	607	20	71	75	49	52	222	67
RTOR Reduction (vph)	0	29	0	0	2	0	0	0	33	0	22	0
Lane Group Flow (vph)	12	344	0	53	625	0	71	75	16	52	267	0
Confl. Peds. (#/hr)	18		5	5		18	5		7	7		5
Confl. Bikes (#/hr)		7	70		2	82		12	17		10	33
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	26.0	26.0		26.0	26.0		16.0	16.0	16.0	16.0	16.0	
Effective Green, g (s)	26.0	26.0		26.0	26.0		16.0	16.0	16.0	16.0	16.0	
Actuated g/C Ratio	0.52	0.52		0.52	0.52		0.32	0.32	0.32	0.32	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	271	906		475	961		292	596	481	418	567	
v/s Ratio Prot		0.20			c0.34			0.04			c0.15	
v/s Ratio Perm	0.02			0.06			0.08		0.01	0.04		
v/c Ratio	0.04	0.38		0.11	0.65		0.24	0.13	0.03	0.12	0.47	
Uniform Delay, d1	5.9	7.2		6.1	8.7		12.5	12.0	11.7	12.0	13.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	1.2		0.5	3.4		2.0	0.4	0.1	0.6	2.8	
Delay (s)	6.2	8.4		6.6	12.1		14.5	12.5	11.8	12.7	16.4	
Level of Service	A	A		A	B		B	B	B	B	B	
Approach Delay (s)		8.3			11.7			13.0			15.8	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		

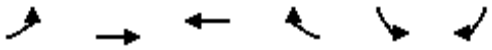
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	325	60	50	655	45	55	74	40	55	144	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95	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	0.95	1.00	1.00	0.97	1.00	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	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1719		1641	3539	1505	1770	1863	1369	1770	1863	1454
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1719		1641	3539	1505	1770	1863	1369	1770	1863	1454
Peak-hour factor, PHF	0.78	0.78	0.78	0.75	0.75	0.75	0.65	0.65	0.65	0.78	0.78	0.78
Adj. Flow (vph)	58	417	77	67	873	60	85	114	62	71	185	192
RTOR Reduction (vph)	0	8	0	0	0	27	0	0	49	0	0	153
Lane Group Flow (vph)	58	486	0	67	873	33	85	114	13	71	185	39
Confl. Peds. (#/hr)			16			9			3			13
Confl. Bikes (#/hr)					3	13			17		17	50
Heavy Vehicles (%)	2%	8%	2%	10%	2%	2%	2%	2%	14%	2%	2%	2%
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	3.3	26.2		4.2	27.1	27.1	6.5	13.8	13.8	6.0	13.3	13.3
Effective Green, g (s)	3.3	26.2		4.2	27.1	27.1	6.5	13.8	13.8	6.0	13.3	13.3
Actuated g/C Ratio	0.05	0.40		0.06	0.41	0.41	0.10	0.21	0.21	0.09	0.20	0.20
Clearance Time (s)	4.0	4.0		4.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	88	680		104	1449	616	174	388	285	160	374	292
v/s Ratio Prot	0.03	c0.28		c0.04	0.25		c0.05	0.06		0.04	c0.10	
v/s Ratio Perm						0.02			0.01			0.03
v/c Ratio	0.66	0.71		0.64	0.60	0.05	0.49	0.29	0.05	0.44	0.49	0.13
Uniform Delay, d1	30.9	16.9		30.3	15.3	11.8	28.3	22.1	20.9	28.5	23.5	21.7
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.4	3.6		12.9	0.7	0.0	2.2	0.4	0.1	2.0	1.0	0.2
Delay (s)	47.3	20.4		43.1	16.0	11.8	30.4	22.5	21.0	30.5	24.5	21.9
Level of Service	D	C		D	B	B	C	C	C	C	C	C
Approach Delay (s)		23.3			17.6			24.7			24.3	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	66.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	1629	1388	146	0	90
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1771	1509	159	0	98
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		951	827			
pX, platoon unblocked	0.61				0.78	0.61
vC, conflicting volume	1667				2473	834
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	813				365	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	85
cM capacity (veh/h)	493				473	661

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	885	885	1006	662	98
Volume Left	0	0	0	0	0
Volume Right	0	0	0	159	98
cSH	1700	1700	1700	1700	661
Volume to Capacity	0.52	0.52	0.59	0.39	0.15
Queue Length 95th (ft)	0	0	0	0	13
Control Delay (s)	0.0	0.0	0.0	0.0	11.4
Lane LOS					B
Approach Delay (s)	0.0		0.0		11.4
Approach LOS					B

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	55.3%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	577	10	317	646	350	15	25	278	275	70	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.96	1.00	1.00	0.97	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	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3505	1532	3433	3539	1524	1671	1863	1537	1770	1636	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3505	1532	3433	3539	1524	1671	1863	1537	1770	1636	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89	0.90	0.90	0.90
Adj. Flow (vph)	106	641	11	352	718	389	17	28	312	306	78	111
RTOR Reduction (vph)	0	0	5	0	0	98	0	0	253	0	45	0
Lane Group Flow (vph)	106	641	6	352	718	291	17	28	59	306	144	0
Confl. Peds. (#/hr)			8			4			8			17
Confl. Bikes (#/hr)		2	5			4		2	2			
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	8%	2%	2%	2%	2%	4%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	10.1	26.9	26.9	23.3	40.1	40.1	2.0	20.7	20.7	23.1	41.8	
Effective Green, g (s)	10.1	26.9	26.9	23.3	40.1	40.1	2.0	20.7	20.7	23.1	41.8	
Actuated g/C Ratio	0.09	0.24	0.24	0.21	0.36	0.36	0.02	0.19	0.19	0.21	0.38	
Clearance Time (s)	4.0	4.0	4.0	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	3.0	3.0	3.0	
Lane Grp Cap (vph)	163	857	375	727	1290	556	30	351	289	372	622	
v/s Ratio Prot	0.06	c0.18		0.10	c0.20		0.01	0.02		c0.17	c0.09	
v/s Ratio Perm			0.00			0.19			0.04			
v/c Ratio	0.65	0.75	0.02	0.48	0.56	0.52	0.57	0.08	0.20	0.82	0.23	
Uniform Delay, d1	48.2	38.4	31.5	38.1	27.9	27.4	53.6	36.8	37.7	41.5	23.2	
Progression Factor	1.00	1.00	1.00	0.74	0.65	0.57	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.9	3.6	0.0	0.4	1.5	2.9	22.3	0.4	1.6	13.6	0.9	
Delay (s)	57.2	42.0	31.5	28.7	19.5	18.6	75.8	37.2	39.3	55.1	24.0	
Level of Service	E	D	C	C	B	B	E	D	D	E	C	
Approach Delay (s)		44.0			21.4			40.9			43.3	
Approach LOS		D			C			D			D	

Intersection Summary			
HCM Average Control Delay	32.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	40	1085	1248	193	254	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1583	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1583	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.95	0.95	0.75	0.75
Adj. Flow (vph)	44	1206	1314	203	339	80
RTOR Reduction (vph)	0	0	0	24	0	61
Lane Group Flow (vph)	44	1206	1314	179	339	19
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	5.6	75.8	66.2	66.2	26.2	26.2
Effective Green, g (s)	5.6	75.8	66.2	66.2	26.2	26.2
Actuated g/C Ratio	0.05	0.69	0.60	0.60	0.24	0.24
Clearance Time (s)	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
Lane Grp Cap (vph)	90	2439	2130	953	422	377
v/s Ratio Prot	0.02	c0.34	c0.37		c0.19	
v/s Ratio Perm				0.11		0.01
v/c Ratio	0.49	0.49	0.62	0.19	0.80	0.05
Uniform Delay, d1	50.8	8.1	13.9	9.8	39.5	32.3
Progression Factor	1.06	0.49	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	0.6	1.4	0.4	10.6	0.1
Delay (s)	57.0	4.5	15.2	10.3	50.1	32.4
Level of Service	E	A	B	B	D	C
Approach Delay (s)		6.3	14.6		46.7	
Approach LOS		A	B		D	

Intersection Summary			
HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.2%	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)	160	1137	140	39	1147	103	220	120	49	154	95	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.95	1.00	1.00	0.91	1.00	1.00	0.90	1.00	1.00	0.89
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1507	1770	3539	1434	1770	1863	1423	1770	1863	1392
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1507	1770	3539	1434	1770	1863	1423	1770	1863	1392
Peak-hour factor, PHF	0.91	0.91	0.91	0.79	0.79	0.79	0.90	0.90	0.90	0.89	0.89	0.89
Adj. Flow (vph)	176	1249	154	49	1452	130	244	133	54	173	107	208
RTOR Reduction (vph)	0	0	15	0	0	11	0	0	16	0	0	129
Lane Group Flow (vph)	176	1249	139	49	1452	119	244	133	38	173	107	79
Confl. Peds. (#/hr)			8			21			12			39
Confl. Bikes (#/hr)		1	3			7		2	49		48	16
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		2	2		6	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.0	54.3	54.3	5.4	47.7	47.7	17.1	17.1	17.1	14.2	14.2	14.2
Effective Green, g (s)	12.0	54.3	54.3	5.4	47.7	47.7	17.1	17.1	17.1	14.2	14.2	14.2
Actuated g/C Ratio	0.11	0.51	0.51	0.05	0.45	0.45	0.16	0.16	0.16	0.13	0.13	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	199	1796	765	89	1578	639	283	298	227	235	247	185
v/s Ratio Prot	c0.10	0.35		0.03	c0.41		c0.14	0.07		c0.10	0.06	
v/s Ratio Perm			0.09			0.08			0.03			0.06
v/c Ratio	0.88	0.70	0.18	0.55	0.92	0.19	0.86	0.45	0.17	0.74	0.43	0.43
Uniform Delay, d1	46.8	20.1	14.3	49.6	27.9	17.9	43.8	40.7	38.8	44.6	42.7	42.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	33.9	1.2	0.1	7.2	9.1	0.1	22.6	1.1	0.4	11.4	1.2	1.6
Delay (s)	80.7	21.2	14.4	56.8	37.0	18.1	66.4	41.7	39.2	56.0	43.9	44.2
Level of Service	F	C	B	E	D	B	E	D	D	E	D	D
Approach Delay (s)		27.2			36.1			55.4			48.3	
Approach LOS		C			D			E			D	

Intersection Summary			
HCM Average Control Delay	36.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	107.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	69.4%	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)	90	1069	130	126	834	103	245	205	152	104	165	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00	0.90	1.00	1.00	0.86	1.00	1.00	0.90
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3539	1512	1770	3539	1424	1752	1827	1367	1770	3406	1432
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1736	3539	1512	1770	3539	1424	1752	1827	1367	1770	3406	1432
Peak-hour factor, PHF	0.95	0.95	0.95	0.90	0.90	0.90	0.91	0.91	0.91	0.74	0.74	0.74
Adj. Flow (vph)	95	1125	137	140	927	114	269	225	167	141	223	95
RTOR Reduction (vph)	0	0	14	0	0	42	0	0	66	0	0	55
Lane Group Flow (vph)	95	1125	123	140	927	72	269	225	101	141	223	40
Confl. Peds. (#/hr)			18			24			29			26
Confl. Bikes (#/hr)		1	5		1	16		1	73		71	27
Heavy Vehicles (%)	4%	2%	2%	2%	2%	2%	3%	4%	2%	2%	6%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.1	34.7	34.7	10.4	37.0	37.0	17.3	17.8	17.8	12.0	12.5	12.5
Effective Green, g (s)	8.1	34.7	34.7	10.4	37.0	37.0	17.3	17.8	17.8	12.0	12.5	12.5
Actuated g/C Ratio	0.09	0.38	0.38	0.11	0.41	0.41	0.19	0.20	0.20	0.13	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	155	1351	577	203	1441	580	333	358	268	234	468	197
v/s Ratio Prot	0.05	c0.32		c0.08	0.26		c0.15	c0.12		0.08	0.07	
v/s Ratio Perm			0.08			0.05			0.07			0.03
v/c Ratio	0.61	0.83	0.21	0.69	0.64	0.12	0.81	0.63	0.38	0.60	0.48	0.20
Uniform Delay, d1	39.9	25.5	18.9	38.7	21.6	16.8	35.2	33.5	31.7	37.2	36.2	34.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.0	4.6	0.2	9.4	1.0	0.1	13.4	3.4	0.9	4.3	0.8	0.5
Delay (s)	46.9	30.0	19.1	48.1	22.6	16.9	48.6	37.0	32.6	41.5	36.9	35.3
Level of Service	D	C	B	D	C	B	D	D	C	D	D	D
Approach Delay (s)		30.1			25.1			40.6			38.0	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1262	135	302	770	235	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.95	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	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1503	1770	3539	1770	1549
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1503	1770	3539	1770	1549
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.90	0.90
Adj. Flow (vph)	1402	150	321	819	261	276
RTOR Reduction (vph)	0	13	0	0	0	233
Lane Group Flow (vph)	1402	137	321	819	261	43
Confl. Peds. (#/hr)		8			14	5
Confl. Bikes (#/hr)	1	14				
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	32.4	32.4	14.1	50.5	12.1	12.1
Effective Green, g (s)	32.4	32.4	14.1	50.5	12.1	12.1
Actuated g/C Ratio	0.42	0.42	0.18	0.65	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	1485	631	323	2315	277	243
v/s Ratio Prot	c0.40		c0.18	0.23	c0.15	
v/s Ratio Perm		0.09				0.03
v/c Ratio	0.94	0.22	0.99	0.35	0.94	0.18
Uniform Delay, d1	21.5	14.3	31.5	6.0	32.2	28.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.4	0.2	48.1	0.1	38.6	0.4
Delay (s)	33.9	14.5	79.7	6.1	70.8	28.6
Level of Service	C	B	E	A	E	C
Approach Delay (s)	32.0			26.8	49.1	
Approach LOS	C			C	D	

Intersection Summary			
HCM Average Control Delay	33.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	18.6
Intersection Capacity Utilization	74.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	80	1430	967	298	174	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1498	1770	1583
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1498	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.97	0.97	0.90	0.90
Adj. Flow (vph)	89	1589	997	307	193	117
RTOR Reduction (vph)	0	0	0	24	0	93
Lane Group Flow (vph)	89	1589	997	283	193	24
Confl. Peds. (#/hr)				15		
Confl. Bikes (#/hr)			11			
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	7.6	44.4	32.8	32.8	14.9	14.9
Effective Green, g (s)	7.6	44.4	32.8	32.8	14.9	14.9
Actuated g/C Ratio	0.10	0.61	0.45	0.45	0.20	0.20
Clearance Time (s)	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
Lane Grp Cap (vph)	184	2144	1584	670	360	322
v/s Ratio Prot	0.05	c0.45	0.28		c0.11	
v/s Ratio Perm				0.19		0.02
v/c Ratio	0.48	0.74	0.63	0.42	0.54	0.07
Uniform Delay, d1	31.0	10.3	15.6	13.8	26.1	23.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.0	1.4	0.8	0.4	1.5	0.1
Delay (s)	33.0	11.8	16.4	14.2	27.6	23.7
Level of Service	C	B	B	B	C	C
Approach Delay (s)		12.9	15.9		26.2	
Approach LOS		B	B		C	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	73.3	Sum of lost time (s)	14.0
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)	70	1354	180	282	1030	292	185	165	319	133	150	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	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	0.94	1.00	1.00	0.96	1.00	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	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1494	3433	3539	1495	1770	1863	1516	1770	1863	1517
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1494	3433	3539	1495	1770	1863	1516	1770	1863	1517
Peak-hour factor, PHF	0.90	0.90	0.90	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	78	1504	200	297	1084	307	218	194	375	156	176	59
RTOR Reduction (vph)	0	0	21	0	0	23	0	0	145	0	0	21
Lane Group Flow (vph)	78	1504	179	297	1084	284	218	194	230	156	176	38
Confl. Peds. (#/hr)			10			9			14			10
Confl. Bikes (#/hr)		1	5		1	9		1	3		2	7
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.4	48.8	48.8	10.1	51.5	51.5	15.8	19.7	19.7	11.0	14.9	14.9
Effective Green, g (s)	7.4	48.8	48.8	10.1	51.5	51.5	15.8	19.7	19.7	11.0	14.9	14.9
Actuated g/C Ratio	0.07	0.46	0.46	0.10	0.49	0.49	0.15	0.19	0.19	0.10	0.14	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	1635	690	328	1726	729	265	348	283	184	263	214
v/s Ratio Prot	0.04	c0.42		c0.09	c0.31		c0.12	0.10		0.09	0.09	
v/s Ratio Perm			0.12			0.19			c0.15			0.03
v/c Ratio	0.63	0.92	0.26	0.91	0.63	0.39	0.82	0.56	0.81	0.85	0.67	0.18
Uniform Delay, d1	47.8	26.6	17.4	47.3	20.0	17.1	43.5	39.0	41.2	46.5	43.0	40.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	9.6	8.7	0.2	27.0	0.7	0.3	18.3	1.9	16.2	28.6	6.3	0.4
Delay (s)	57.4	35.3	17.6	74.3	20.7	17.5	61.8	40.9	57.4	75.1	49.3	40.4
Level of Service	E	D	B	E	C	B	E	D	E	E	D	D
Approach Delay (s)		34.3			29.5			54.5			58.3	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM Average Control Delay	38.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	105.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	69	153	1449	135	75	1341	116	148	44	120	179	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.95		1.00	0.95
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	0.89		1.00	0.90
Flt Protected		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (prot)		1770	3458		1770	3464		1770	1572		1770	1608
Flt Permitted		0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00
Satd. Flow (perm)		1770	3458		1770	3464		1770	1572		1770	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	77	170	1610	150	82	1474	127	164	49	133	199	71
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	247	1760	0	82	1601	0	164	182	0	199	195
Confl. Peds. (#/hr)				30			30			30		
Confl. Bikes (#/hr)									1			1
Turn Type	Prot	Prot			Prot			Prot			Prot	
Protected Phases	7	7	4		3	8		5	2		1	6
Permitted Phases												
Actuated Green, G (s)		14.0	57.1		5.0	48.1		13.9	15.1		15.0	16.2
Effective Green, g (s)		14.0	57.1		5.0	48.1		13.9	15.1		15.0	16.2
Actuated g/C Ratio		0.13	0.53		0.05	0.44		0.13	0.14		0.14	0.15
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)		229	1825		82	1540		227	219		245	241
v/s Ratio Prot		c0.14	0.51		0.05	c0.46		0.09	0.12		c0.11	c0.12
v/s Ratio Perm												
v/c Ratio		1.08	0.96		1.00	1.04		0.72	0.83		0.81	0.81
Uniform Delay, d1		47.1	24.6		51.6	30.1		45.3	45.3		45.2	44.5
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		81.9	13.5		99.4	33.9		10.8	22.7		18.2	17.8
Delay (s)		129.0	38.1		151.0	64.0		56.1	68.0		63.4	62.3
Level of Service		F	D		F	E		E	E		E	E
Approach Delay (s)			49.3			68.2			62.3			62.9
Approach LOS			D			E			E			E

Intersection Summary			
HCM Average Control Delay	58.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	108.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	112
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	124
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	30
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	34	265	20	15	210	170	55	209	20	180	164	44
Peak Hour Factor	0.76	0.76	0.76	0.88	0.88	0.88	0.72	0.72	0.72	0.83	0.83	0.83
Hourly flow rate (vph)	45	349	26	17	239	193	76	290	28	217	198	53

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	45	375	17	432	367	28	414	53
Volume Left (vph)	45	0	17	0	76	0	217	0
Volume Right (vph)	0	26	0	193	0	28	0	53
Hadj (s)	0.58	-0.02	0.53	-0.28	0.17	-0.67	0.31	-0.67
Departure Headway (s)	9.8	9.2	9.5	8.7	9.4	8.6	9.3	8.4
Degree Utilization, x	0.12	0.96	0.04	1.05	0.95	0.07	1.07	0.12
Capacity (veh/h)	363	387	372	416	380	413	390	425
Control Delay (s)	12.9	64.8	11.7	85.9	65.2	11.0	94.9	11.3
Approach Delay (s)	59.3		83.1		61.4		85.4	
Approach LOS	F		F		F		F	

Intersection Summary				
Delay	73.0			
HCM Level of Service	F			
Intersection Capacity Utilization	70.8%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Stop			Stop	Stop	
Volume (vph)	270	275	50	185	265	90
Peak Hour Factor	0.92	0.92	0.86	0.86	0.82	0.82
Hourly flow rate (vph)	293	299	58	215	323	110

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total (vph)	293	299	58	215	433
Volume Left (vph)	0	0	58	0	323
Volume Right (vph)	0	299	0	0	110
Hadj (s)	0.03	-0.67	0.53	0.03	0.03
Departure Headway (s)	6.5	5.8	7.4	6.9	6.0
Degree Utilization, x	0.53	0.48	0.12	0.41	0.72
Capacity (veh/h)	536	602	458	495	582
Control Delay (s)	15.4	12.8	10.2	13.4	22.7
Approach Delay (s)	14.1		12.7		22.7
Approach LOS	B		B		C

Intersection Summary			
Delay	16.7		
HCM Level of Service	C		
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	289	120	90	396	349	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.97	1.00	1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1543	1770	1863	1863	1514
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1543	1770	1863	1863	1514
Peak-hour factor, PHF	0.90	0.90	0.80	0.80	0.90	0.90
Adj. Flow (vph)	321	133	112	495	388	242
RTOR Reduction (vph)	0	95	0	0	0	160
Lane Group Flow (vph)	321	38	112	495	388	82
Confl. Peds. (#/hr)	25	4				18
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	12.4	12.4	4.3	23.0	14.7	14.7
Effective Green, g (s)	12.4	12.4	4.3	23.0	14.7	14.7
Actuated g/C Ratio	0.29	0.29	0.10	0.53	0.34	0.34
Clearance Time (s)	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
Lane Grp Cap (vph)	506	441	175	987	631	513
v/s Ratio Prot	c0.18		0.06	c0.27	c0.21	
v/s Ratio Perm		0.02				0.05
v/c Ratio	0.63	0.09	0.64	0.50	0.61	0.16
Uniform Delay, d1	13.5	11.4	18.8	6.5	12.0	10.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.6	0.1	7.7	0.4	1.8	0.1
Delay (s)	16.1	11.4	26.6	6.9	13.8	10.2
Level of Service	B	B	C	A	B	B
Approach Delay (s)	14.7			10.6	12.4	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	43.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	20	34	191	195	19	163
Peak Hour Factor	0.77	0.77	0.71	0.71	0.81	0.81
Hourly flow rate (vph)	26	44	269	275	23	201

Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	70	544	23	201
Volume Left (vph)	26	0	23	0
Volume Right (vph)	44	275	0	0
Hadj (s)	-0.27	-0.27	0.53	0.03
Departure Headway (s)	5.3	4.2	5.6	5.1
Degree Utilization, x	0.10	0.63	0.04	0.29
Capacity (veh/h)	596	847	618	681
Control Delay (s)	8.9	14.2	7.6	9.0
Approach Delay (s)	8.9	14.2	8.8	
Approach LOS	A	B	A	

Intersection Summary			
Delay	12.3		
HCM Level of Service	B		
Intersection Capacity Utilization	32.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	19	369	10	15	389	35	10	65	55	30	45	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	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	0.93		1.00	0.93		1.00	0.90		1.00	0.95
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		0.99	1.00		0.98	1.00
Satd. Flow (prot)		1858	1479		1859	1462		1754	1431		1803	1508
Flt Permitted		0.97	1.00		0.98	1.00		0.97	1.00		0.89	1.00
Satd. Flow (perm)		1800	1479		1821	1462		1712	1431		1634	1508
Peak-hour factor, PHF	0.88	0.88	0.88	0.80	0.80	0.80	0.76	0.76	0.76	0.82	0.82	0.82
Adj. Flow (vph)	22	419	11	19	486	44	13	86	72	37	55	35
RTOR Reduction (vph)	0	0	7	0	0	26	0	0	43	0	0	21
Lane Group Flow (vph)	0	441	4	0	505	18	0	99	29	0	92	14
Confl. Peds. (#/hr)	2		2	2		2	5		2	2		5
Confl. Bikes (#/hr)		33	47		3	49		1	80		47	23
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	11%	7%	2%	2%	4%	2%
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Effective Green, g (s)		16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40		0.40	0.40		0.40	0.40
Clearance Time (s)		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0
Lane Grp Cap (vph)		720	592		728	585		685	572		654	603
v/s Ratio Prot												
v/s Ratio Perm		0.25	0.00		c0.28	0.01		c0.06	0.02		0.06	0.01
v/c Ratio		0.61	0.01		0.69	0.03		0.14	0.05		0.14	0.02
Uniform Delay, d1		9.5	7.2		10.0	7.3		7.6	7.3		7.6	7.3
Progression Factor		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Incremental Delay, d2		3.9	0.0		5.4	0.1		0.4	0.2		0.5	0.1
Delay (s)		13.4	7.2		15.4	7.4		8.1	7.5		8.1	7.3
Level of Service		B	A		B	A		A	A		A	A
Approach Delay (s)		13.3			14.7			7.8			7.9	
Approach LOS		B			B			A			A	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.0%	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)	15	434	65	50	318	15	70	125	100	15	90	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00	1.00	1.00	1.00			1.00			1.00	
Frpb, ped/bikes		1.00	0.84	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	0.85	1.00	0.99			0.95			0.95	
Flt Protected		1.00	1.00	0.95	1.00			0.99			1.00	
Satd. Flow (prot)		1859	1338	1731	1843			1527			1740	
Flt Permitted		0.98	1.00	0.32	1.00			0.87			0.96	
Satd. Flow (perm)		1831	1338	588	1843			1351			1673	
Peak-hour factor, PHF	0.88	0.88	0.88	0.81	0.81	0.81	0.86	0.86	0.86	0.67	0.67	0.67
Adj. Flow (vph)	17	493	74	62	393	19	81	145	116	22	134	90
RTOR Reduction (vph)	0	0	35	0	3	0	0	37	0	0	41	0
Lane Group Flow (vph)	0	510	39	62	409	0	0	305	0	0	205	0
Confl. Peds. (#/hr)	5		3	3		5	3		7	7		3
Confl. Bikes (#/hr)		17	153		2	54		4	37		20	11
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	2%	4%	2%	2%	2%
Parking (#/hr)								1				
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Actuated Green, G (s)		22.0	22.0	22.0	22.0			20.0			20.0	
Effective Green, g (s)		22.0	22.0	22.0	22.0			20.0			20.0	
Actuated g/C Ratio		0.44	0.44	0.44	0.44			0.40			0.40	
Clearance Time (s)		4.0	4.0	4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		806	589	259	811			540			669	
v/s Ratio Prot					0.22							
v/s Ratio Perm		c0.28	0.03	0.11				c0.23			0.12	
v/c Ratio		0.63	0.07	0.24	0.50			0.56			0.31	
Uniform Delay, d1		10.9	8.1	8.8	10.1			11.6			10.3	
Progression Factor		1.00	1.00	1.00	1.00			1.00			1.00	
Incremental Delay, d2		3.8	0.2	2.2	2.2			4.2			1.2	
Delay (s)		14.6	8.3	10.9	12.3			15.9			11.4	
Level of Service		B	A	B	B			B			B	
Approach Delay (s)		13.8			12.1			15.9			11.4	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.1%	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)	29	354	160	57	389	120	40	432	138	145	321	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes		0.95			0.98		1.00	1.00	0.88	1.00	1.00	0.90
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.96			0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		1.00			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1700			1758		1770	1863	1390	1770	1863	1423
Flt Permitted		0.95			0.84		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1614			1483		1770	1863	1390	1770	1863	1423
Peak-hour factor, PHF	0.81	0.81	0.81	0.89	0.89	0.89	0.78	0.78	0.78	0.97	0.97	0.97
Adj. Flow (vph)	36	437	198	64	437	135	51	554	177	149	331	30
RTOR Reduction (vph)	0	14	0	0	9	0	0	0	23	0	0	6
Lane Group Flow (vph)	0	657	0	0	627	0	51	554	154	149	331	24
Confl. Peds. (#/hr)	13		10	10		13			19			19
Confl. Bikes (#/hr)		7	133		5	49		3	40		33	22
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		46.9			46.9		5.9	35.5	35.5	10.8	40.4	40.4
Effective Green, g (s)		46.9			46.9		5.9	35.5	35.5	10.8	40.4	40.4
Actuated g/C Ratio		0.45			0.45		0.06	0.34	0.34	0.10	0.38	0.38
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)		720			661		99	629	469	182	715	546
v/s Ratio Prot							0.03	c0.30		c0.08	0.18	
v/s Ratio Perm		0.41			c0.42				0.11			0.02
v/c Ratio		0.91			0.95		0.52	0.88	0.33	0.82	0.46	0.04
Uniform Delay, d1		27.2			28.0		48.3	32.9	26.0	46.2	24.3	20.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		15.9			22.9		4.5	13.6	0.4	24.0	0.5	0.0
Delay (s)		43.2			50.9		52.7	46.5	26.4	70.3	24.7	20.3
Level of Service		D			D		D	D	C	E	C	C
Approach Delay (s)		43.2			50.9			42.3			37.8	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	43.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	105.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	341	345	35	35	460	39	65	67	60	44	56	94
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.51	0.51	0.51	0.87	0.87	0.87
Hourly flow rate (vph)	379	383	39	39	511	43	127	131	118	51	64	108

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	379	422	593	259	118	115	108
Volume Left (vph)	379	0	39	127	0	51	0
Volume Right (vph)	0	39	43	0	118	0	108
Hadj (s)	0.53	-0.03	0.00	0.13	-0.57	0.25	-0.63
Departure Headway (s)	8.2	7.6	7.9	8.7	3.2	9.1	8.2
Degree Utilization, x	0.86	0.89	1.30	0.63	0.10	0.29	0.25
Capacity (veh/h)	379	468	462	400	1121	370	420
Control Delay (s)	43.2	45.9	176.2	25.3	6.6	14.6	12.7
Approach Delay (s)	44.6		176.2	19.4		13.7	
Approach LOS	E		F	C		B	

Intersection Summary				
Delay	75.6			
HCM Level of Service	F			
Intersection Capacity Utilization	72.7%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	810	55	55	575	70	50	223	70	110	292	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.98	1.00	
Frt		0.99			0.98		1.00	0.96		1.00	0.96	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3474			3461		1794	1559		1742	1557	
Flt Permitted		0.99			1.00		0.17	1.00		0.27	1.00	
Satd. Flow (perm)		3474			3461		330	1559		500	1557	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93
Adj. Flow (vph)	108	900	61	61	639	78	60	269	84	118	314	103
RTOR Reduction (vph)	0	5	0	0	9	0	0	12	0	0	13	0
Lane Group Flow (vph)	0	1064	0	0	769	0	60	341	0	118	404	0
Confl. Peds. (#/hr)	3		19	19		3	13		24	24		13
Confl. Bikes (#/hr)			13		3	2			38		38	19
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	0%	2%	2%	2%	2%	5%
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		33.0			21.0		24.0	24.0		24.0	24.0	
Effective Green, g (s)		33.0			21.0		24.0	24.0		24.0	24.0	
Actuated g/C Ratio		0.37			0.23		0.27	0.27		0.27	0.27	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1274			808		88	416		133	415	
v/s Ratio Prot		c0.31			c0.22			0.22			c0.26	
v/s Ratio Perm							0.18			0.24		
v/c Ratio		0.84			0.95		0.68	0.82		0.89	0.97	
Uniform Delay, d1		26.0			34.0		29.6	31.0		31.7	32.7	
Progression Factor		1.00			1.40		1.00	1.00		1.00	1.00	
Incremental Delay, d2		6.6			17.6		35.2	16.3		52.4	37.9	
Delay (s)		32.6			65.2		64.8	47.2		84.1	70.6	
Level of Service		C			E		E	D		F	E	
Approach Delay (s)		32.6			65.2			49.8			73.6	
Approach LOS		C			E			D			E	

Intersection Summary			
HCM Average Control Delay	52.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
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)	35	745	220	80	520	65	95	170	55	35	70	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		0.98			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		0.97	1.00	
Frt		0.97			0.99		1.00	0.96		1.00	0.96	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3362			3450		1763	1553		1719	1561	
Flt Permitted		1.00			0.99		0.61	1.00		0.36	1.00	
Satd. Flow (perm)		3362			3450		1136	1553		650	1561	
Peak-hour factor, PHF	0.84	0.84	0.84	0.96	0.96	0.96	0.78	0.78	0.78	0.69	0.69	0.69
Adj. Flow (vph)	42	887	262	83	542	68	122	218	71	51	101	43
RTOR Reduction (vph)	0	29	0	0	9	0	0	13	0	0	17	0
Lane Group Flow (vph)	0	1162	0	0	684	0	122	276	0	51	127	0
Confl. Peds. (#/hr)	5		16	16		5	3		35	35		3
Confl. Bikes (#/hr)		3	9		3	9		1	24		21	14
Parking (#/hr)								3			3	
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)		34.0			21.0		23.0	23.0		23.0	23.0	
Effective Green, g (s)		34.0			21.0		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.38			0.23		0.26	0.26		0.26	0.26	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		1270			805		290	397		166	399	
v/s Ratio Prot		c0.35			c0.20			c0.18			0.08	
v/s Ratio Perm							0.11			0.08		
v/c Ratio		0.92			0.85		0.42	0.70		0.31	0.32	
Uniform Delay, d1		26.6			33.0		27.9	30.3		27.1	27.1	
Progression Factor		0.28			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		7.7			10.9		4.4	9.7		4.7	2.1	
Delay (s)		15.1			43.9		32.4	40.0		31.8	29.2	
Level of Service		B			D		C	D		C	C	
Approach Delay (s)		15.1			43.9			37.8			29.9	
Approach LOS		B			D			D			C	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
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 (veh/h)	255	1372	121	130	1019	60	82	140	115	170	240	431
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.92	0.93	0.92	0.93	0.92	0.92	0.92
Hourly flow rate (vph)	283	1524	134	140	1096	65	88	152	124	185	261	468
Pedestrians		32			32			32				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		3			3			3				
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		932			1318							
pX, platoon unblocked	0.93			0.58			0.61	0.61	0.58	0.61	0.61	0.93
vC, conflicting volume	1161			1556			3581	3564	826	2845	3531	612
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1025			507			3445	3415	0	2244	3362	437
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	55			76			0	0	79	0	0	9
cM capacity (veh/h)	627			594			0	2	595	0	2	515

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2	
Volume Total	283	762	762	134	140	730	430	240	124	446	468	
Volume Left	283	0	0	0	140	0	0	88	0	185	0	
Volume Right	0	0	0	134	0	0	65	0	124	0	468	
cSH	627	1700	1700	1700	594	1700	1700	0	595	0	515	
Volume to Capacity	0.45	0.45	0.45	0.08	0.24	0.43	0.25	Err	0.21	Err	0.91	
Queue Length 95th (ft)	59	0	0	0	23	0	0	Err	19	Err	267	
Control Delay (s)	15.4	0.0	0.0	0.0	12.9	0.0	0.0	Err	12.6	Err	49.0	
Lane LOS	C				B			F	B	F	E	
Approach Delay (s)	2.2				1.4			Err		Err		
Approach LOS								F		F		

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	93.3%	ICU Level of Service	F	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	1569	88	70	1060	149	25
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.95	0.95	0.84	0.84
Hourly flow rate (vph)	1724	97	74	1116	177	30
Pedestrians	7			7	7	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				724		
pX, platoon unblocked					0.87	
vC, conflicting volume			1828		2492	924
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1828		2413	924
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			78		0	89
cM capacity (veh/h)			328		18	268

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1
Volume Total	1149	671	74	558	558	207
Volume Left	0	0	74	0	0	177
Volume Right	0	97	0	0	0	30
cSH	1700	1700	328	1700	1700	21
Volume to Capacity	0.68	0.39	0.22	0.33	0.33	9.94
Queue Length 95th (ft)	0	0	21	0	0	Err
Control Delay (s)	0.0	0.0	19.1	0.0	0.0	Err
Lane LOS			C			F
Approach Delay (s)	0.0		1.2			Err
Approach LOS						F

Intersection Summary			
Average Delay	644.2		
Intersection Capacity Utilization	70.7%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	413	985	196	110	523	215	193	285	110	245	240	414
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.79	1.00	1.00	0.97	1.00	1.00	0.92	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1243	1770	3539	1541	1770	1863	1456	1770	1863	1560
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1243	1770	3539	1541	1770	1863	1456	1770	1863	1560
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.86	0.86	0.86	0.90	0.90	0.90
Adj. Flow (vph)	459	1094	218	121	575	236	224	331	128	272	267	460
RTOR Reduction (vph)	0	0	61	0	0	75	0	0	23	0	0	355
Lane Group Flow (vph)	459	1094	157	121	575	161	224	331	105	272	267	105
Confl. Peds. (#/hr)			59						35			
Confl. Bikes (#/hr)			6			12			9		9	3
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	29.5	39.0	39.0	9.6	19.1	19.1	16.4	22.2	22.2	18.3	24.1	24.1
Effective Green, g (s)	29.5	39.0	39.0	9.6	19.1	19.1	16.4	22.2	22.2	18.3	24.1	24.1
Actuated g/C Ratio	0.28	0.37	0.37	0.09	0.18	0.18	0.16	0.21	0.21	0.17	0.23	0.23
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	497	1313	461	162	643	280	276	394	308	308	427	358
v/s Ratio Prot	c0.26	c0.31		0.07	0.16		0.13	c0.18		c0.15	0.14	
v/s Ratio Perm			0.13			0.10			0.07			0.07
v/c Ratio	0.92	0.83	0.34	0.75	0.89	0.57	0.81	0.84	0.34	0.88	0.63	0.29
Uniform Delay, d1	36.7	30.1	23.8	46.6	42.0	39.3	42.9	39.7	35.2	42.4	36.4	33.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.9	4.7	0.4	17.0	14.9	2.8	16.4	14.8	0.7	24.4	2.9	0.5
Delay (s)	59.6	34.8	24.2	63.6	56.9	42.1	59.2	54.6	35.9	66.7	39.3	33.9
Level of Service	E	C	C	E	E	D	E	D	D	E	D	C
Approach Delay (s)		39.9			54.0			52.6			44.3	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	45.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	105.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↱	↰	↑↑	↰	↱
Volume (vph)	1265	75	45	813	35	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.94	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1444	1770	3539	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1444	1770	3539	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.92	0.92	0.67	0.67
Adj. Flow (vph)	1406	83	49	884	52	15
RTOR Reduction (vph)	0	0	0	0	0	14
Lane Group Flow (vph)	1406	83	49	884	52	1
Confl. Peds. (#/hr)		16	16			
Confl. Bikes (#/hr)		4				
Heavy Vehicles (%)	2%	5%	2%	2%	2%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	49.6	49.6	3.5	57.1	6.3	6.3
Effective Green, g (s)	49.6	49.6	3.5	57.1	6.3	6.3
Actuated g/C Ratio	0.62	0.62	0.04	0.71	0.08	0.08
Clearance Time (s)	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
Lane Grp Cap (vph)	2197	896	78	2529	140	125
v/s Ratio Prot	c0.40		c0.03	0.25	c0.03	
v/s Ratio Perm		0.06				0.00
v/c Ratio	0.64	0.09	0.63	0.35	0.37	0.01
Uniform Delay, d1	9.5	6.1	37.6	4.3	34.9	33.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.0	14.8	0.1	1.7	0.0
Delay (s)	10.2	6.1	52.3	4.4	36.6	34.0
Level of Service	B	A	D	A	D	C
Approach Delay (s)	9.9			6.9	36.0	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	79.9	Sum of lost time (s)	20.5
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	158	1023	740	135	70	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	0.95	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	3539	1503	1736	1540
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	3539	1503	1736	1540
Peak-hour factor, PHF	0.90	0.90	0.96	0.96	0.73	0.73
Adj. Flow (vph)	176	1137	771	141	96	170
RTOR Reduction (vph)	0	0	0	33	0	143
Lane Group Flow (vph)	176	1137	771	108	96	27
Confl. Peds. (#/hr)				15	2	13
Confl. Bikes (#/hr)				2		
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Actuated Green, G (s)	12.7	39.3	22.6	22.6	10.0	10.0
Effective Green, g (s)	12.7	39.3	22.6	22.6	10.0	10.0
Actuated g/C Ratio	0.20	0.62	0.36	0.36	0.16	0.16
Clearance Time (s)	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
Lane Grp Cap (vph)	356	2204	1268	538	275	244
v/s Ratio Prot	0.10	c0.32	c0.22		c0.06	
v/s Ratio Perm				0.07		0.02
v/c Ratio	0.49	0.52	0.61	0.20	0.35	0.11
Uniform Delay, d1	22.4	6.6	16.6	14.0	23.7	22.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.2	0.8	0.2	0.8	0.2
Delay (s)	23.4	6.8	17.4	14.2	24.4	22.9
Level of Service	C	A	B	B	C	C
Approach Delay (s)		9.0	16.9		23.5	
Approach LOS		A	B		C	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	63.1	Sum of lost time (s)	17.8
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 (veh/h)	5	1063	30	80	810	5	60	5	30	5	5	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.52	0.52	0.52	0.38	0.38	0.38
Hourly flow rate (vph)	6	1181	33	85	862	5	115	10	58	13	13	13
Pedestrians		5			50			5				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			4			0				
Right turn flare (veh)												
Median type		TWLTL			None							
Median storage veh)		2										
Upstream signal (ft)		903										
pX, platoon unblocked				0.82			0.82	0.82	0.82	0.82	0.82	
vC, conflicting volume	867			1219			1840	2251	662	1749	2265	439
vC1, stage 1 conf vol							1214	1214		1035	1035	
vC2, stage 2 conf vol							626	1037		714	1231	
vCu, unblocked vol	867			837			1590	2090	160	1480	2107	439
tC, single (s)	4.1			4.3			7.6	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)							6.6	5.5		6.5	5.5	
tF (s)	2.2			2.3			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			86			45	95	91	93	92	98
cM capacity (veh/h)	772			619			209	195	668	192	167	564

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	596	624	85	574	293	183	39
Volume Left	6	0	85	0	0	115	13
Volume Right	0	33	0	0	5	58	13
cSH	772	1700	619	1700	1700	266	232
Volume to Capacity	0.01	0.37	0.14	0.34	0.17	0.69	0.17
Queue Length 95th (ft)	1	0	12	0	0	114	15
Control Delay (s)	0.2	0.0	11.7	0.0	0.0	43.8	23.7
Lane LOS	A		B			E	C
Approach Delay (s)	0.1		1.0			43.8	23.7
Approach LOS						E	C

Intersection Summary				
Average Delay	4.2			
Intersection Capacity Utilization	76.0%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	884	199	40	796	99	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.96	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1518	1770	1863	1736	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1518	1770	1863	1736	1583
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.78	0.78
Adj. Flow (vph)	982	221	43	847	127	71
RTOR Reduction (vph)	0	34	0	0	0	34
Lane Group Flow (vph)	982	187	43	847	127	37
Confl. Peds. (#/hr)		11				
Confl. Bikes (#/hr)		4				
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	32.8	32.8	2.5	39.3	7.8	7.8
Effective Green, g (s)	32.8	32.8	2.5	39.3	7.8	7.8
Actuated g/C Ratio	0.60	0.60	0.05	0.71	0.14	0.14
Clearance Time (s)	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
Lane Grp Cap (vph)	2107	904	80	1329	246	224
v/s Ratio Prot	0.28		0.02	c0.45	c0.07	
v/s Ratio Perm		0.12				0.02
v/c Ratio	0.47	0.21	0.54	0.64	0.52	0.16
Uniform Delay, d1	6.2	5.1	25.7	4.2	21.9	20.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1	6.8	1.0	1.8	0.3
Delay (s)	6.4	5.3	32.5	5.2	23.7	21.1
Level of Service	A	A	C	A	C	C
Approach Delay (s)	6.2			6.5	22.8	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	55.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	799	145	235	756	80	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.98	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	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1546	1770	1863	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1546	1770	1863	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.94	0.94	0.59	0.59
Adj. Flow (vph)	888	161	250	804	136	127
RTOR Reduction (vph)	0	97	0	0	0	105
Lane Group Flow (vph)	888	64	250	804	136	22
Confl. Bikes (#/hr)		4				
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	26.2	26.2	15.9	46.1	11.4	11.4
Effective Green, g (s)	26.2	26.2	15.9	46.1	11.4	11.4
Actuated g/C Ratio	0.40	0.40	0.24	0.70	0.17	0.17
Clearance Time (s)	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
Lane Grp Cap (vph)	1416	618	430	1311	308	276
v/s Ratio Prot	0.25		0.14	c0.43	c0.08	
v/s Ratio Perm		0.04				0.01
v/c Ratio	0.63	0.10	0.58	0.61	0.44	0.08
Uniform Delay, d1	15.7	12.3	21.9	5.1	24.2	22.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.1	2.0	0.9	1.0	0.1
Delay (s)	16.6	12.4	23.9	5.9	25.2	22.8
Level of Service	B	B	C	A	C	C
Approach Delay (s)	16.0			10.2	24.0	
Approach LOS	B			B	C	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	65.5	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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	55	355	365	911	904	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00
Frpb, ped/bikes	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
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	1559	1770	1863	3539	1547
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1770	1559	1770	1863	3539	1547
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	394	406	1012	1004	44
RTOR Reduction (vph)	0	342	0	0	0	27
Lane Group Flow (vph)	61	52	406	1012	1004	17
Confl. Bikes (#/hr)		2		5	1	3
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Actuated Green, G (s)	9.1	9.1	21.2	52.2	27.0	27.0
Effective Green, g (s)	9.1	9.1	21.2	52.2	27.0	27.0
Actuated g/C Ratio	0.13	0.13	0.31	0.75	0.39	0.39
Clearance Time (s)	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
Lane Grp Cap (vph)	232	205	541	1403	1379	603
v/s Ratio Prot	c0.03		0.23	c0.54	0.28	
v/s Ratio Perm		0.03				0.01
v/c Ratio	0.26	0.25	0.75	0.72	0.73	0.03
Uniform Delay, d1	27.1	27.0	21.7	4.6	18.0	13.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.7	5.8	1.9	2.0	0.0
Delay (s)	27.7	27.7	27.5	6.5	20.0	13.1
Level of Service	C	C	C	A	B	B
Approach Delay (s)	27.7			12.5	19.7	
Approach LOS	C			B	B	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	69.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.5%	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)	209	130	625	20	20	40	605	1161	55	90	1115	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	0.98		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		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.90		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1568	1719	1650		1770	3511		1752	3539	1538
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1568	1719	1650		1770	3511		1752	3539	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.69	0.69	0.69	0.90	0.90	0.90	0.94	0.94	0.94
Adj. Flow (vph)	232	144	694	29	29	58	672	1290	61	96	1186	79
RTOR Reduction (vph)	0	0	45	0	52	0	0	3	0	0	0	54
Lane Group Flow (vph)	232	144	649	29	35	0	672	1348	0	96	1186	25
Confl. Peds. (#/hr)			6			5			2			2
Confl. Bikes (#/hr)			6		2	2			2		3	3
Heavy Vehicles (%)	2%	2%	2%	5%	2%	2%	2%	2%	2%	3%	2%	2%
Turn Type	Prot		pm+ov	Prot			Prot			Prot		Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4									6
Actuated Green, G (s)	9.1	16.0	39.2	1.9	8.8		23.2	44.8		5.4	27.0	27.0
Effective Green, g (s)	9.1	16.0	39.2	1.9	8.8		23.2	44.8		5.4	27.0	27.0
Actuated g/C Ratio	0.11	0.19	0.47	0.02	0.10		0.28	0.53		0.06	0.32	0.32
Clearance Time (s)	4.0	4.0	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	3.0	3.0
Lane Grp Cap (vph)	192	354	805	39	173		488	1870		112	1136	494
v/s Ratio Prot	c0.13	0.08	c0.22	0.02	0.02		c0.38	0.38		0.05	c0.34	
v/s Ratio Perm			0.19									0.02
v/c Ratio	1.21	0.41	0.81	0.74	0.20		1.38	0.72		0.86	1.04	0.05
Uniform Delay, d1	37.5	29.9	19.2	40.9	34.4		30.4	14.9		39.0	28.5	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	132.3	0.8	5.9	54.3	0.6		182.2	1.4		43.6	38.9	0.0
Delay (s)	169.8	30.6	25.1	95.1	35.0		212.7	16.3		82.6	67.5	19.8
Level of Service	F	C	C	F	D		F	B		F	E	B
Approach Delay (s)		57.2			50.0			81.5			65.8	
Approach LOS		E			D			F			E	

Intersection Summary			
HCM Average Control Delay	70.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	84.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.6%	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)	515	335	175	35	80	199	30	909	110	274	493	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1562	1770	1863	1561	1752	3505	1559	1770	3539	1562
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1562	1770	1863	1561	1752	3505	1559	1770	3539	1562
Peak-hour factor, PHF	0.97	0.97	0.97	0.93	0.93	0.93	0.97	0.97	0.97	0.90	0.90	0.90
Adj. Flow (vph)	531	345	180	38	86	214	31	937	113	304	548	367
RTOR Reduction (vph)	0	0	122	0	0	192	0	0	17	0	0	232
Lane Group Flow (vph)	531	345	58	38	86	22	31	937	96	304	548	135
Confl. Bikes (#/hr)		1	2			1			4		3	2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%	2%
Turn Type	Split		Perm	Split		Perm	Prot		Perm	Prot		Perm
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	30.5	30.5	30.5	9.9	9.9	9.9	3.6	24.6	24.6	14.0	35.0	35.0
Effective Green, g (s)	30.5	30.5	30.5	9.9	9.9	9.9	3.6	24.6	24.6	14.0	35.0	35.0
Actuated g/C Ratio	0.32	0.32	0.32	0.10	0.10	0.10	0.04	0.26	0.26	0.15	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	568	1136	501	184	194	163	66	908	404	261	1304	575
v/s Ratio Prot	c0.30	0.10		0.02	c0.05		0.02	c0.27		c0.17	0.15	
v/s Ratio Perm			0.04			0.01			0.06			0.09
v/c Ratio	0.93	0.30	0.12	0.21	0.44	0.14	0.47	1.03	0.24	1.16	0.42	0.24
Uniform Delay, d1	31.3	24.3	22.7	39.0	40.0	38.7	44.8	35.2	27.8	40.5	22.4	20.7
Progression Factor	0.87	0.81	1.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	23.7	0.6	0.4	0.6	1.6	0.4	5.2	38.4	0.3	107.7	0.2	0.2
Delay (s)	50.9	20.4	27.3	39.5	41.6	39.1	50.0	73.6	28.1	148.2	22.6	21.0
Level of Service	D	C	C	D	D	D	D	E	C	F	C	C
Approach Delay (s)		36.9			39.7			68.1			53.4	
Approach LOS		D			D			E			D	

Intersection Summary			
HCM Average Control Delay	51.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	59	20	815	69	35	756
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	64	22	886	75	38	822
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		7				
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1784	886			961	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1784	886			961	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	25	94			95	
cM capacity (veh/h)	85	344			716	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	86	886	75	38	822
Volume Left	64	0	0	38	0
Volume Right	22	0	75	0	0
cSH	114	1700	1700	716	1700
Volume to Capacity	0.75	0.52	0.04	0.05	0.48
Queue Length 95th (ft)	105	0	0	4	0
Control Delay (s)	96.7	0.0	0.0	10.3	0.0
Lane LOS	F			B	
Approach Delay (s)	96.7	0.0		0.5	
Approach LOS	F				

Intersection Summary				
Average Delay	4.6			
Intersection Capacity Utilization	52.9%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	50	5	40	129	5	90	50	744	119	55	730	30
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	5	43	140	5	98	54	809	129	60	793	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								633				
pX, platoon unblocked	0.84	0.84		0.84	0.84	0.84				0.84		
vC, conflicting volume	1849	1976	810	1941	1928	873	826			938		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1917	2068	810	2027	2010	752	826			829		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	86	89	0	87	72	93			91		
cM capacity (veh/h)	24	39	380	25	42	344	805			672		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	54	49	140	103	54	938	60	826
Volume Left	54	0	140	0	54	0	60	0
Volume Right	0	43	0	98	0	129	0	33
cSH	24	192	25	249	805	1700	672	1700
Volume to Capacity	2.22	0.26	5.59	0.41	0.07	0.55	0.09	0.49
Queue Length 95th (ft)	169	24	Err	48	5	0	7	0
Control Delay (s)	898.1	30.1	Err	29.3	9.8	0.0	10.9	0.0
Lane LOS	F	D	F	D	A		B	
Approach Delay (s)	486.9		5770.8		0.5		0.7	
Approach LOS	F		F					

Intersection Summary				
Average Delay	654.6			
Intersection Capacity Utilization	66.9%	ICU Level of Service	C	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	80	5	20	144	70	5	20	607	208	185	627	70
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	87	5	22	160	78	6	22	674	231	206	697	78
Pedestrians					6						1	
Lane Width (ft)					12.0						12.0	
Walking Speed (ft/s)					4.0						4.0	
Percent Blockage					1						0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1911	2103	736	1973	2026	797	774			912		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1911	2103	736	1973	2026	797	774			912		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	85	95	0	0	99	97			72		
cM capacity (veh/h)	0	36	419	30	40	384	841			744		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	87	27	160	83	22	906	206	774
Volume Left	87	0	160	0	22	0	206	0
Volume Right	0	22	0	6	0	231	0	78
cSH	0	134	30	43	841	1700	744	1700
Volume to Capacity	Err	0.20	5.31	1.94	0.03	0.53	0.28	0.46
Queue Length 95th (ft)	Err	18	Err	216	2	0	28	0
Control Delay (s)	Err	38.4	Err	643.1	9.4	0.0	11.7	0.0
Lane LOS	F	E	F	F	A		B	
Approach Delay (s)	Err		6794.9		0.2		2.4	
Approach LOS	F		F					

Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	79.7%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	55	105	90	548	450	95
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	71	136	110	668	549	116
Pedestrians	9			3		
Lane Width (ft)	12.0			12.0		
Walking Speed (ft/s)	4.0			4.0		
Percent Blockage	1			0		
Right turn flare (veh)						
Median type				None	TWLTL	
Median storage veh)					2	
Upstream signal (ft)					656	
pX, platoon unblocked	0.88	0.88	0.88			
vC, conflicting volume	1504	619	674			
vC1, stage 1 conf vol	616					
vC2, stage 2 conf vol	888					
vCu, unblocked vol	1504	494	557			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	76	73	88			
cM capacity (veh/h)	301	499	882			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	208	110	668	665
Volume Left	71	110	0	0
Volume Right	136	0	0	116
cSH	407	882	1700	1700
Volume to Capacity	0.51	0.12	0.39	0.39
Queue Length 95th (ft)	70	11	0	0
Control Delay (s)	22.7	9.7	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	22.7	1.4		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	160	118	490	115	182	438
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frpb, ped/bikes	1.00	0.85	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1770	1287	1803		1770	1863
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1770	1287	1803		1770	1863
Peak-hour factor, PHF	0.85	0.85	0.86	0.86	0.87	0.87
Adj. Flow (vph)	188	139	570	134	209	503
RTOR Reduction (vph)	0	122	9	0	0	0
Lane Group Flow (vph)	188	17	695	0	209	503
Confl. Bikes (#/hr)		42		18		14
Heavy Vehicles (%)	2%	7%	2%	2%	2%	2%
Turn Type		Perm			Prot	
Protected Phases	8		2		1	6
Permitted Phases		8				
Actuated Green, G (s)	8.1	8.1	30.5		9.1	43.6
Effective Green, g (s)	8.1	8.1	30.5		9.1	43.6
Actuated g/C Ratio	0.12	0.12	0.46		0.14	0.66
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	216	157	828		243	1223
v/s Ratio Prot	c0.11		c0.39		c0.12	0.27
v/s Ratio Perm		0.01				
v/c Ratio	0.87	0.11	0.84		0.86	0.41
Uniform Delay, d1	28.6	25.9	15.8		28.0	5.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	29.4	0.3	7.5		25.2	0.2
Delay (s)	58.1	26.2	23.3		53.3	5.6
Level of Service	E	C	C		D	A
Approach Delay (s)	44.5		23.3			19.6
Approach LOS	D		C			B

Intersection Summary			
HCM Average Control Delay	25.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	66.4	Sum of lost time (s)	18.7
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	190	170	45	85	29	140	461	125	39	399	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	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	0.92		1.00	0.96	1.00	1.00	0.96	1.00	1.00	0.95
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	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98	1.00		0.98	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1822	1464		1826	1518	1770	1863	1514	1770	1863	1506
Flt Permitted		0.81	1.00		0.77	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1511	1464		1434	1518	1770	1863	1514	1770	1863	1506
Peak-hour factor, PHF	0.89	0.89	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	135	213	191	51	97	33	159	524	142	43	438	209
RTOR Reduction (vph)	0	0	100	0	0	23	0	0	78	0	0	134
Lane Group Flow (vph)	0	348	91	0	148	10	159	524	64	43	438	75
Confl. Peds. (#/hr)	5		10	10		5			6			9
Confl. Bikes (#/hr)		2	33		3	11		2	17		15	14
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Actuated Green, G (s)		16.5	16.5		16.5	16.5	5.8	23.5	23.5	1.4	19.1	19.1
Effective Green, g (s)		16.5	16.5		16.5	16.5	5.8	23.5	23.5	1.4	19.1	19.1
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.11	0.44	0.44	0.03	0.36	0.36
Clearance Time (s)		4.0	4.0		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	3.0	3.0
Lane Grp Cap (vph)		467	452		443	469	192	820	666	46	666	539
v/s Ratio Prot							c0.09	c0.28		0.02	0.24	
v/s Ratio Perm		c0.23	0.06		0.10	0.01			0.04			0.05
v/c Ratio		0.75	0.20		0.33	0.02	0.83	0.64	0.10	0.93	0.66	0.14
Uniform Delay, d1		16.6	13.6		14.2	12.8	23.3	11.6	8.7	26.0	14.4	11.6
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		6.4	0.2		0.4	0.0	24.4	1.6	0.1	107.1	2.4	0.1
Delay (s)		22.9	13.8		14.7	12.9	47.8	13.3	8.8	133.1	16.8	11.7
Level of Service		C	B		B	B	D	B	A	F	B	B
Approach Delay (s)		19.7			14.3			19.2			22.5	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	53.4	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.7%	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)	155	280	415	135	325	194	245	402	235	168	381	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	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	0.94	1.00	1.00	0.84	1.00	1.00	0.96	1.00	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	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	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1459	1770	3505	1324	1770	1863	1522	1770	1863	1475
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1459	1770	3505	1324	1770	1863	1522	1770	1863	1475
Peak-hour factor, PHF	0.96	0.96	0.96	0.84	0.84	0.84	0.91	0.91	0.91	0.92	0.92	0.92
Adj. Flow (vph)	161	292	432	161	387	231	269	442	258	183	414	147
RTOR Reduction (vph)	0	0	216	0	0	71	0	0	38	0	0	23
Lane Group Flow (vph)	161	292	216	161	387	160	269	442	220	183	414	124
Confl. Peds. (#/hr)			7			49			14			28
Confl. Bikes (#/hr)		1	12		2	7		2	6		5	15
Heavy Vehicles (%)	2%	2%	4%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.9	17.9	17.9	11.9	17.9	17.9	17.6	29.9	29.9	12.9	25.2	25.2
Effective Green, g (s)	11.9	17.9	17.9	11.9	17.9	17.9	17.6	29.9	29.9	12.9	25.2	25.2
Actuated g/C Ratio	0.13	0.20	0.20	0.13	0.20	0.20	0.20	0.34	0.34	0.15	0.28	0.28
Clearance Time (s)	4.0	4.0	4.0	4.0	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	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	238	715	295	238	708	267	352	629	514	258	530	420
v/s Ratio Prot	c0.09	0.08		0.09	0.11		c0.15	0.24		0.10	c0.22	
v/s Ratio Perm			c0.15			0.12			0.14			0.08
v/c Ratio	0.68	0.41	0.73	0.68	0.55	0.60	0.76	0.70	0.43	0.71	0.78	0.30
Uniform Delay, d1	36.5	30.7	33.1	36.5	31.7	32.1	33.5	25.5	22.7	36.1	29.2	24.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.4	0.4	9.0	7.4	0.9	3.6	9.5	3.6	0.6	8.6	7.4	0.4
Delay (s)	43.9	31.1	42.1	43.9	32.6	35.7	43.0	29.0	23.3	44.7	36.5	25.2
Level of Service	D	C	D	D	C	D	D	C	C	D	D	C
Approach Delay (s)		38.8			35.8			31.4			36.3	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM Average Control Delay	35.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	88.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	68.0%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	45	205	10	20	30	19	35	174	15	18	293	30
Peak Hour Factor	0.65	0.65	0.65	0.78	0.78	0.78	0.83	0.83	0.83	0.76	0.76	0.76
Hourly flow rate (vph)	69	315	15	26	38	24	42	210	18	24	386	39

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	400	88	270	449
Volume Left (vph)	69	26	42	24
Volume Right (vph)	15	24	18	39
Hadj (s)	0.05	-0.07	0.03	-0.01
Departure Headway (s)	6.4	7.3	6.6	6.2
Degree Utilization, x	0.72	0.18	0.49	0.77
Capacity (veh/h)	529	405	498	552
Control Delay (s)	24.0	11.8	15.8	26.9
Approach Delay (s)	24.0	11.8	15.8	26.9
Approach LOS	C	B	C	D

Intersection Summary			
Delay	22.4		
HCM Level of Service	C		
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	320	75	25	295	20	70	169	80	20	88	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	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		1.00	1.00	0.96	1.00	0.98	
Flpb, ped/bikes	0.99	1.00		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	1.00	0.85	1.00	0.92	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1751	1769		1762	1837		1764	1863	1514	1763	1682	
Flt Permitted	0.45	1.00		0.40	1.00		0.54	1.00	1.00	0.64	1.00	
Satd. Flow (perm)	824	1769		743	1837		1008	1863	1514	1182	1682	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.88	0.88	0.88	0.69	0.69	0.69
Adj. Flow (vph)	38	348	82	30	360	24	80	192	91	29	128	152
RTOR Reduction (vph)	0	17	0	0	5	0	0	0	55	0	85	0
Lane Group Flow (vph)	38	413	0	30	379	0	80	192	36	29	195	0
Confl. Peds. (#/hr)	13		6	6		13	3		3	3		3
Confl. Bikes (#/hr)		4	106		4	34		10	21		17	7
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	22.0	22.0		22.0	22.0		20.0	20.0	20.0	20.0	20.0	
Effective Green, g (s)	22.0	22.0		22.0	22.0		20.0	20.0	20.0	20.0	20.0	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.40	0.40	0.40	0.40	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	363	778		327	808		403	745	606	473	673	
v/s Ratio Prot		c0.23			0.21			0.10			c0.12	
v/s Ratio Perm	0.05			0.04			0.08		0.02	0.02		
v/c Ratio	0.10	0.53		0.09	0.47		0.20	0.26	0.06	0.06	0.29	
Uniform Delay, d1	8.2	10.2		8.2	9.9		9.8	10.0	9.2	9.2	10.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	2.6		0.6	2.0		1.1	0.8	0.2	0.2	1.1	
Delay (s)	8.8	12.8		8.7	11.8		10.9	10.9	9.4	9.5	11.3	
Level of Service	A	B		A	B		B	B	A	A	B	
Approach Delay (s)		12.5			11.6			10.5			11.1	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.4%	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)	125	610	100	65	580	100	90	179	180	50	104	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95	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	0.95	1.00	1.00	0.94	1.00	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	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1809		1703	3539	1498	1770	1863	1484	1770	1863	1477
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1809		1703	3539	1498	1770	1863	1484	1770	1863	1477
Peak-hour factor, PHF	0.83	0.83	0.83	0.89	0.89	0.89	0.87	0.87	0.87	0.70	0.70	0.70
Adj. Flow (vph)	151	735	120	73	652	112	103	206	207	71	149	114
RTOR Reduction (vph)	0	6	0	0	0	64	0	0	160	0	0	93
Lane Group Flow (vph)	151	849	0	73	652	48	103	206	47	71	149	21
Confl. Peds. (#/hr)			14			11			3			18
Confl. Bikes (#/hr)			3			7			43		43	24
Heavy Vehicles (%)	2%	2%	2%	6%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot			Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	11.9	41.3		3.7	33.1	33.1	6.3	16.8	16.8	4.4	14.9	14.9
Effective Green, g (s)	11.9	41.3		3.7	33.1	33.1	6.3	16.8	16.8	4.4	14.9	14.9
Actuated g/C Ratio	0.14	0.50		0.05	0.40	0.40	0.08	0.20	0.20	0.05	0.18	0.18
Clearance Time (s)	4.0	4.0		4.0	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	3.0	3.0	3.0
Lane Grp Cap (vph)	256	909		77	1425	603	136	381	303	95	338	268
v/s Ratio Prot	0.09	c0.47		c0.04	0.18		c0.06	c0.11		0.04	0.08	
v/s Ratio Perm						0.03			0.03			0.01
v/c Ratio	0.59	0.93		0.95	0.46	0.08	0.76	0.54	0.16	0.75	0.44	0.08
Uniform Delay, d1	32.9	19.2		39.2	18.0	15.2	37.2	29.2	26.9	38.4	29.9	27.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.5	16.1		84.0	0.2	0.1	21.1	1.6	0.2	27.0	0.9	0.1
Delay (s)	36.3	35.2		123.1	18.2	15.2	58.3	30.8	27.1	65.3	30.9	28.1
Level of Service	D	D		F	B	B	E	C	C	E	C	C
Approach Delay (s)		35.4			27.0			34.8			37.2	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	82.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	1806	1496	174	0	108
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1963	1626	189	0	117
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		1021	758			
pX, platoon unblocked	0.58				0.78	0.58
vC, conflicting volume	1815				2702	908
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	951				267	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	81
cM capacity (veh/h)	415				547	627

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	982	982	1084	731	117
Volume Left	0	0	0	0	0
Volume Right	0	0	0	189	117
cSH	1700	1700	1700	1700	627
Volume to Capacity	0.58	0.58	0.64	0.43	0.19
Queue Length 95th (ft)	0	0	0	0	17
Control Delay (s)	0.0	0.0	0.0	0.0	12.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.1
Approach LOS					B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: Oak Ave

Scenario: Cumulative + Project - LI
Peak Hour: AM

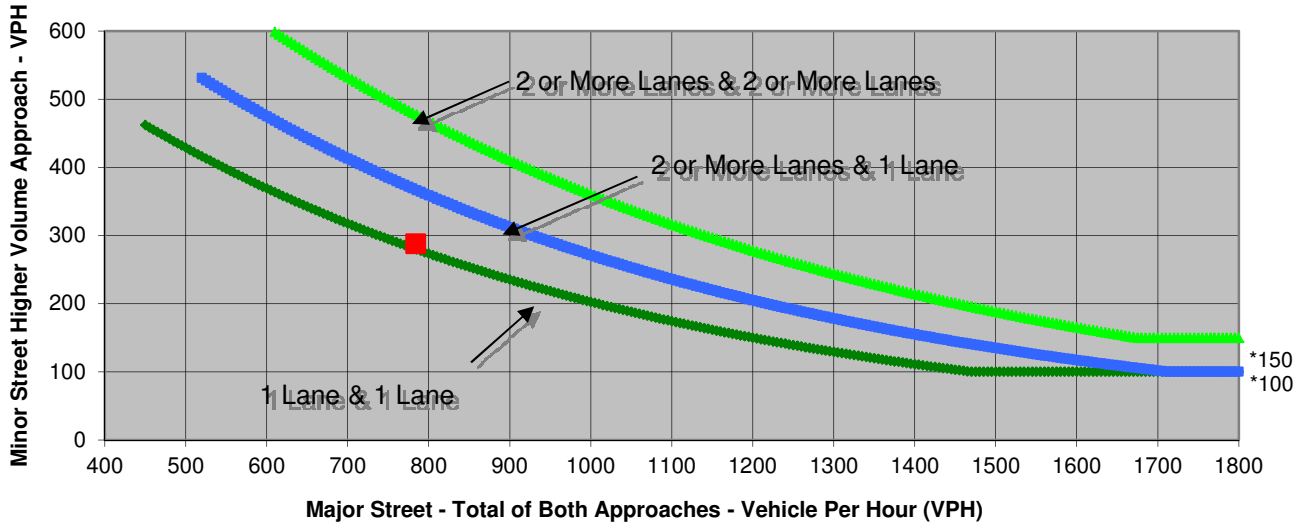
Turn Movement Volumes

	NB	SB	EB	WB
Left	20	120	69	55
Through	94	114	315	120
Right	45	54	90	135
Total	159	288	474	310

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	Oak Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	784	288	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: Oak Ave

Scenario: Cumulative + Project - LI
Peak Hour: PM

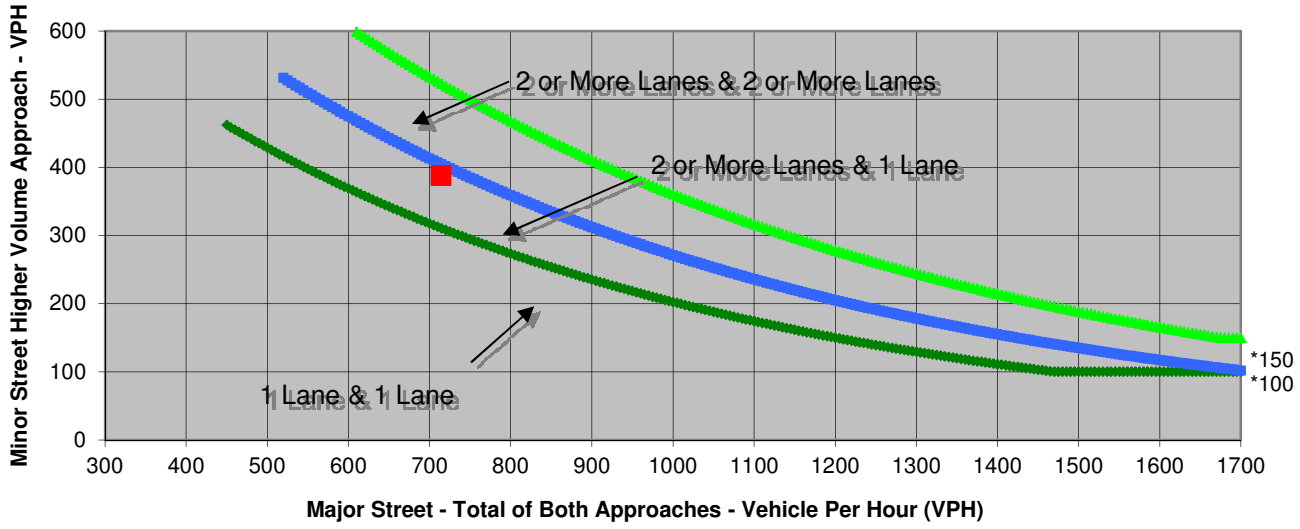
Turn Movement Volumes

	NB	SB	EB	WB
Left	55	180	34	15
Through	90	164	265	210
Right	20	44	20	170
Total	165	388	319	395

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	Oak Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	714	388	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: B St

Scenario: Cumulative + Project - LI
Peak Hour: AM

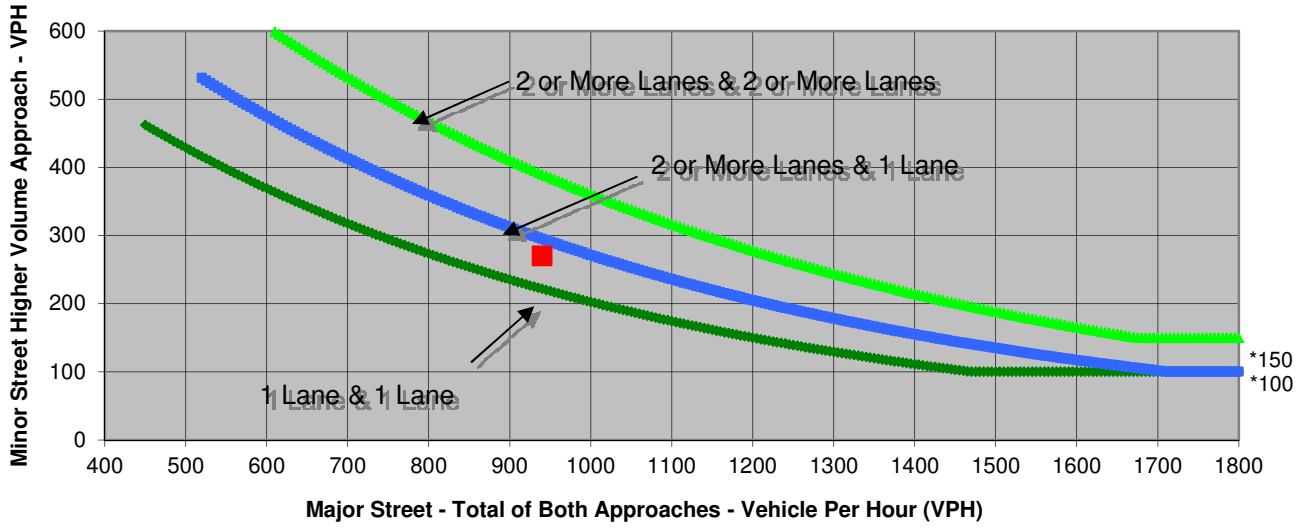
Turn Movement Volumes

	NB	SB	EB	WB
Left	215	0	0	135
Through	0	0	215	360
Right	55	0	230	0
Total	270	0	445	495

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	B St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	940	270	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: W 14th St
Minor Street: B St

Scenario: Cumulative + Project - LI
Peak Hour: PM

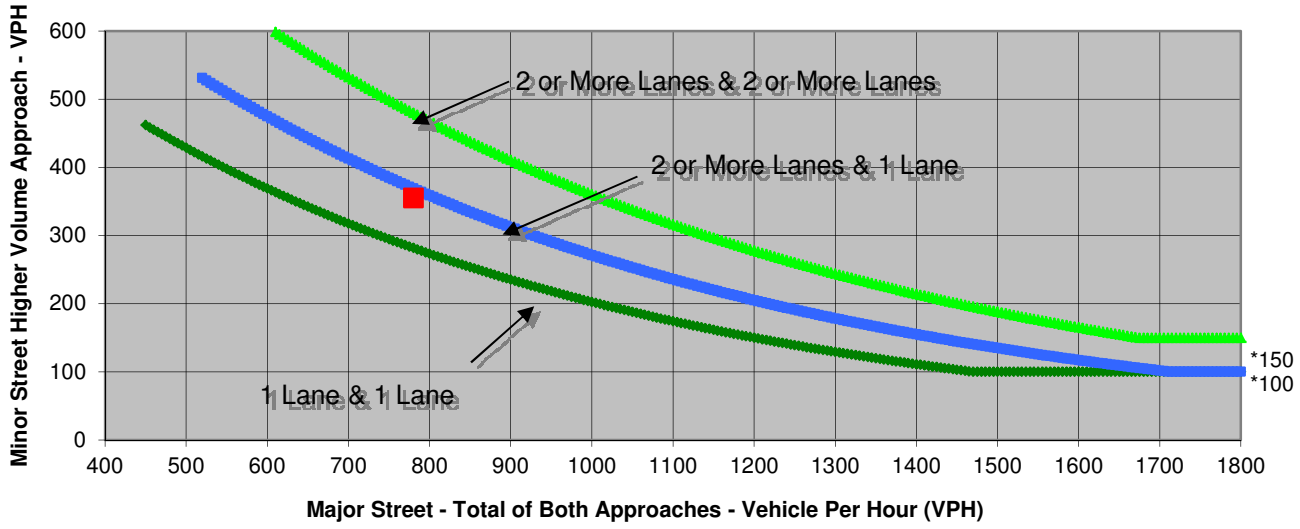
Turn Movement Volumes

	NB	SB	EB	WB
Left	265	0	0	50
Through	0	0	270	185
Right	90	0	275	0
Total	355	0	545	235

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	W 14th St	B St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	780	355	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: J St
Minor Street: Drexel Dr

Scenario: Cumulative + Project - LI
Peak Hour: AM

Turn Movement Volumes

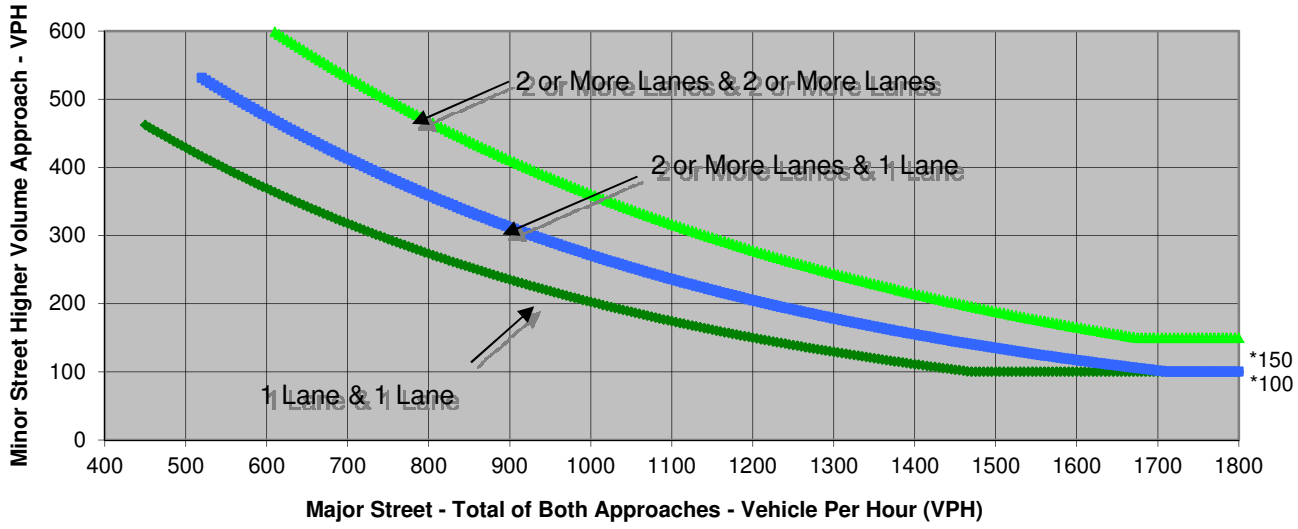
	NB	SB	EB	WB
Left	0	29	0	45
Through	150	152	0	0
Right	50	0	0	34
Total	200	181	0	79

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	J St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	381	79	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: J St
Minor Street: Drexel Dr

Scenario: Cumulative + Project - LI
Peak Hour: PM

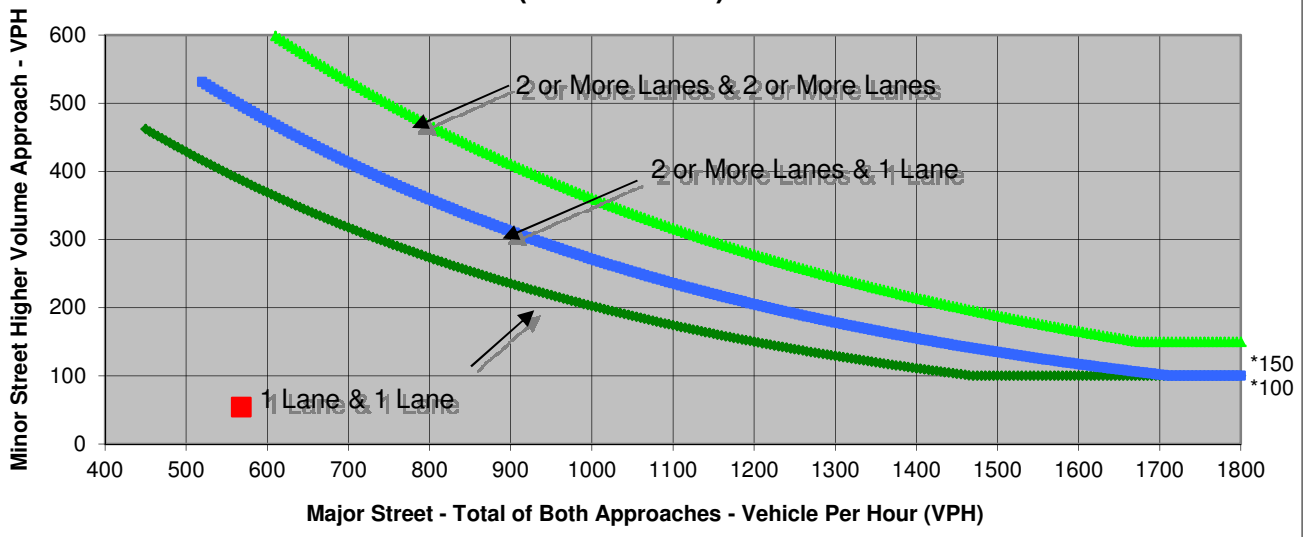
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	19	0	20
Through	191	163	0	0
Right	195	0	0	34
Total	386	182	0	54

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	J St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	568	54	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: E 8th St
Minor Street: J St

Scenario: Cumulative + Project - LI
Peak Hour: AM

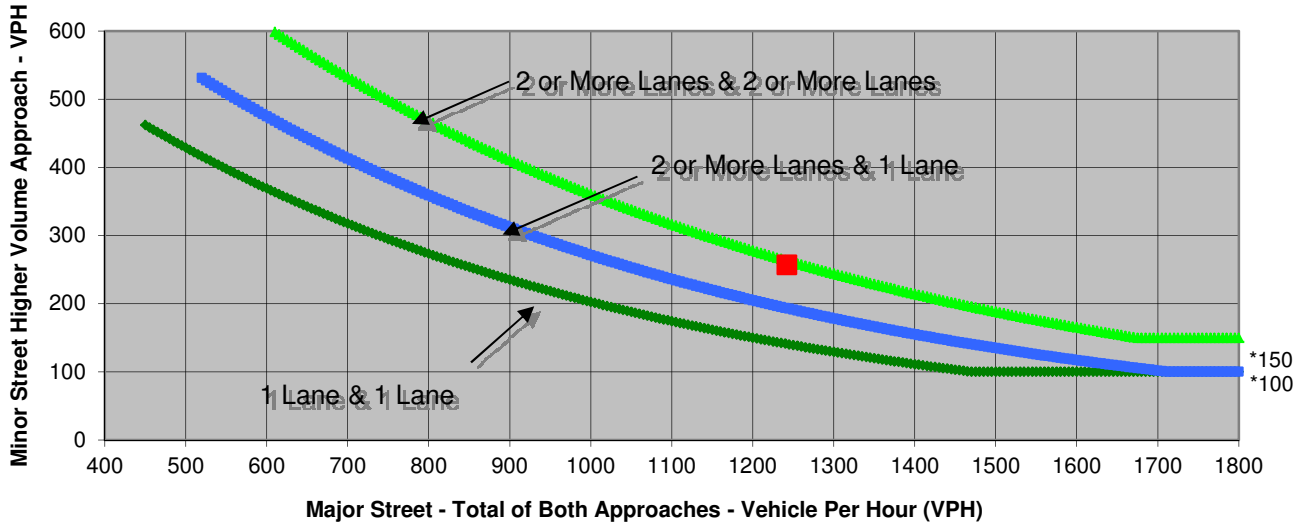
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	59	118	75
Through	40	52	405	545
Right	10	146	80	19
Total	110	257	603	639

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	E 8th St	J St	
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,242	257	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach. Volumes on the cusp (i.e. within 10 vehicles) of warranting a signal. Given poor LOS F operations, signal warrant considered to be met.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: E 8th St
Minor Street: J St

Scenario: Cumulative + Project - LI
Peak Hour: PM

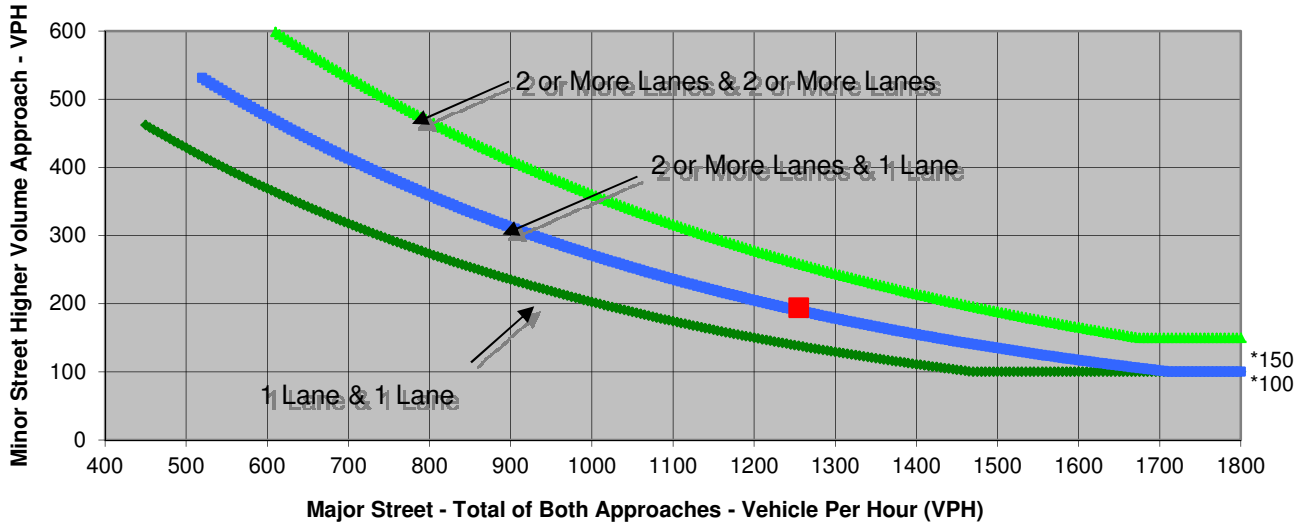
Turn Movement Volumes

	NB	SB	EB	WB
Left	65	44	341	35
Through	67	56	345	460
Right	60	94	35	39
Total	192	194	721	534

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	E 8th St	J St	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,255	194	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: L St

Scenario: Cumulative + Project - LI
Peak Hour: AM

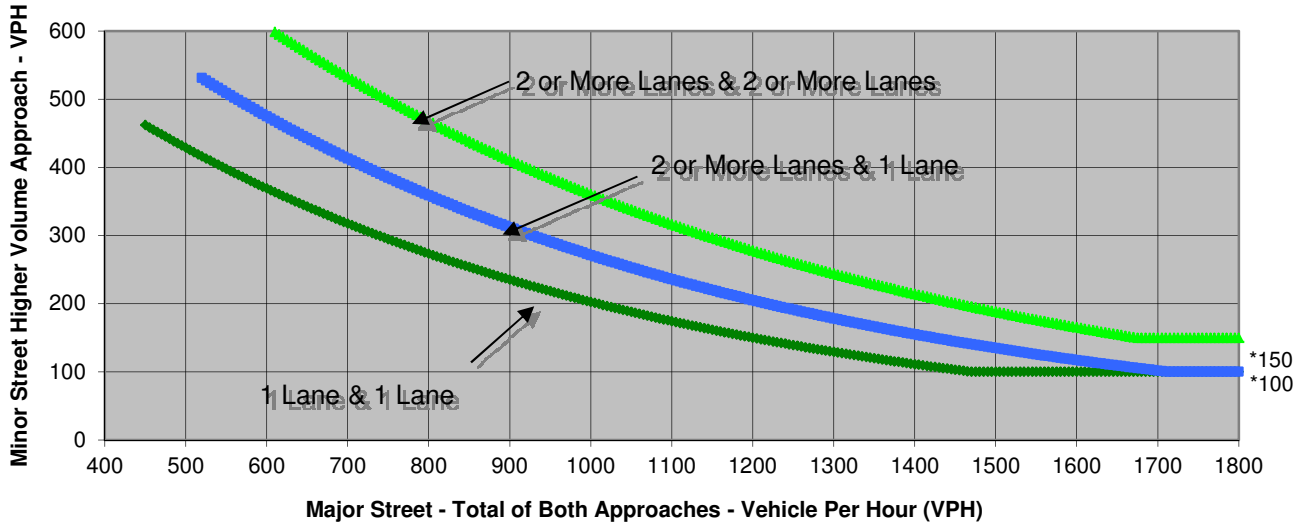
Turn Movement Volumes

	NB	SB	EB	WB
Left	50	80	652	185
Through	265	50	856	1,179
Right	0	184	0	130
Total	315	314	1,508	1,494

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	L St	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	3,002	315	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: L St

Scenario: Cumulative + Project - LI
Peak Hour: PM

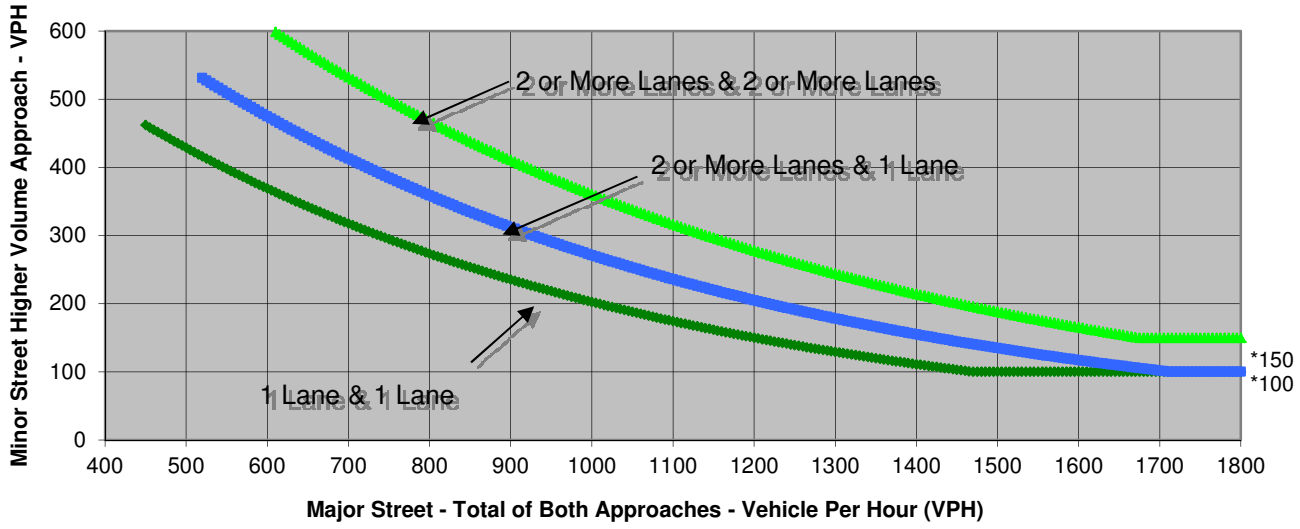
Turn Movement Volumes

	NB	SB	EB	WB
Left	82	170	652	130
Through	140	240	856	1,019
Right	0	431	0	60
Total	222	841	1,508	1,209

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	L St	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,717	841	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: AM

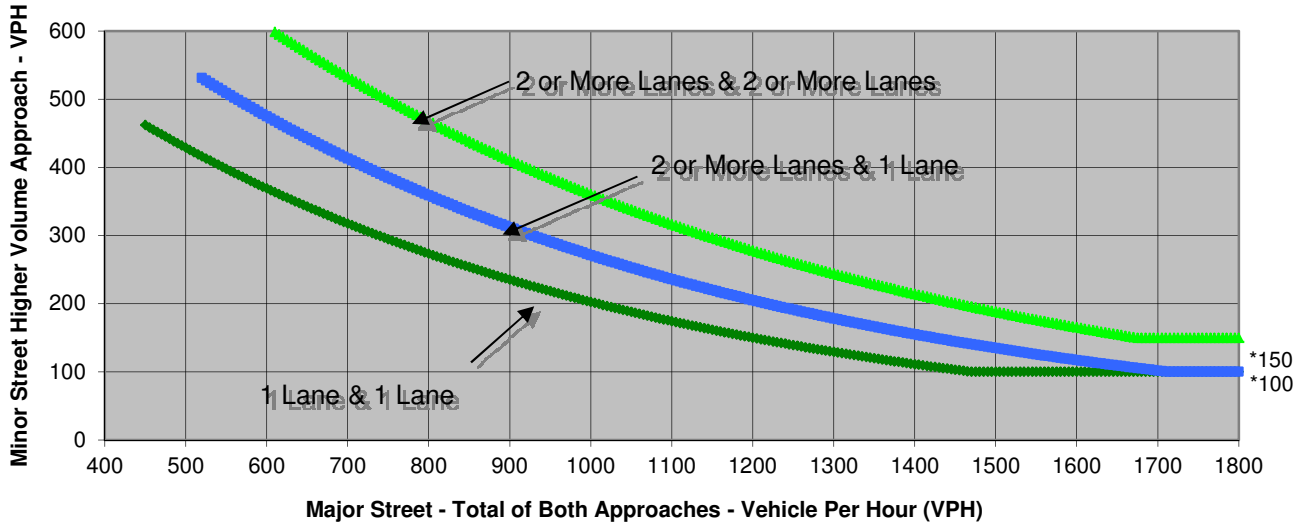
Turn Movement Volumes

	NB	SB	EB	WB
Left	68	0	0	60
Through	0	0	942	1,426
Right	5	0	44	0
Total	73	0	986	1,486

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	2,472	73	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: PM

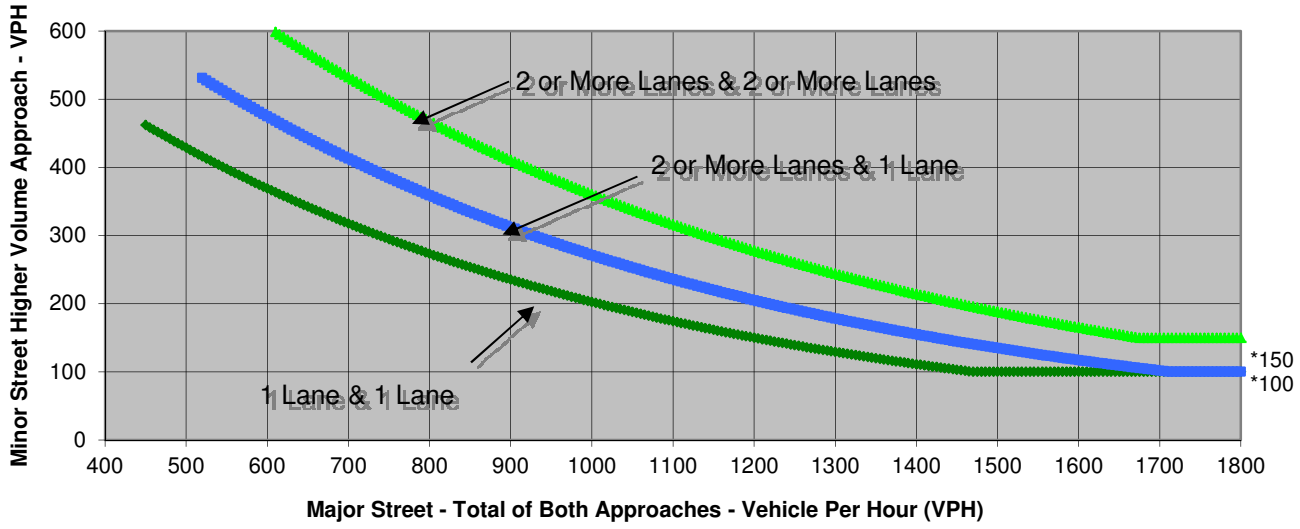
Turn Movement Volumes

	NB	SB	EB	WB
Left	149	0	0	70
Through	0	0	1,569	1,060
Right	25	0	88	0
Total	174	0	1,657	1,130

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	2,787	174	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Monarch Ln

Scenario: Cumulative + Project - LI
Peak Hour: AM

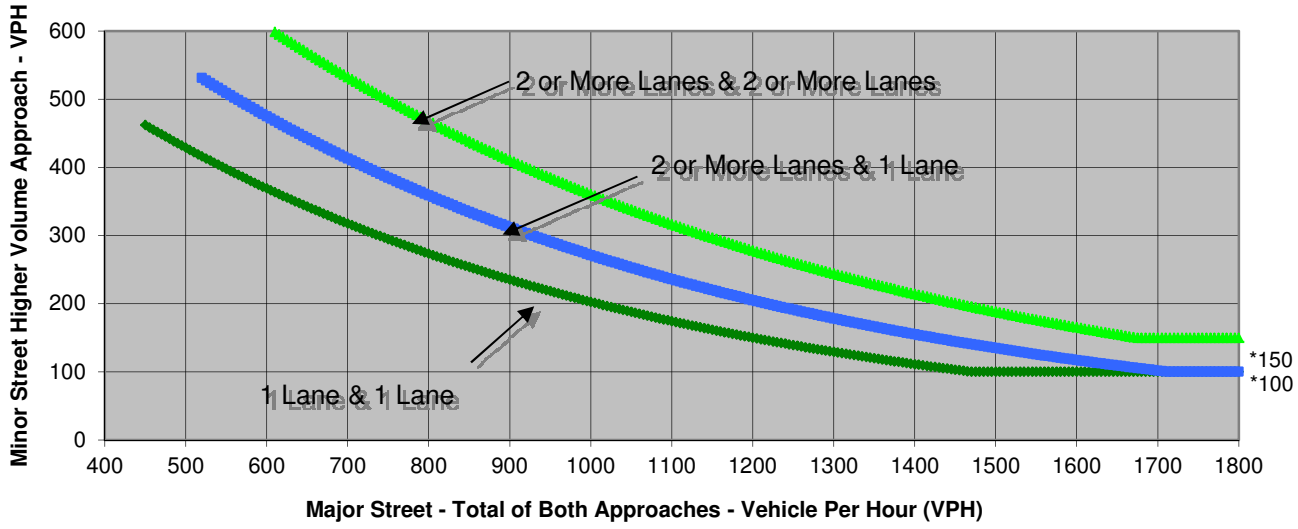
Turn Movement Volumes

	NB	SB	EB	WB
Left	70	5	5	35
Through	5	5	835	991
Right	50	5	35	5
Total	125	15	875	1,031

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Covell Blvd	Monarch Ln	
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,906	125	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Monarch Ln

Scenario: Cumulative + Project - LI
Peak Hour: PM

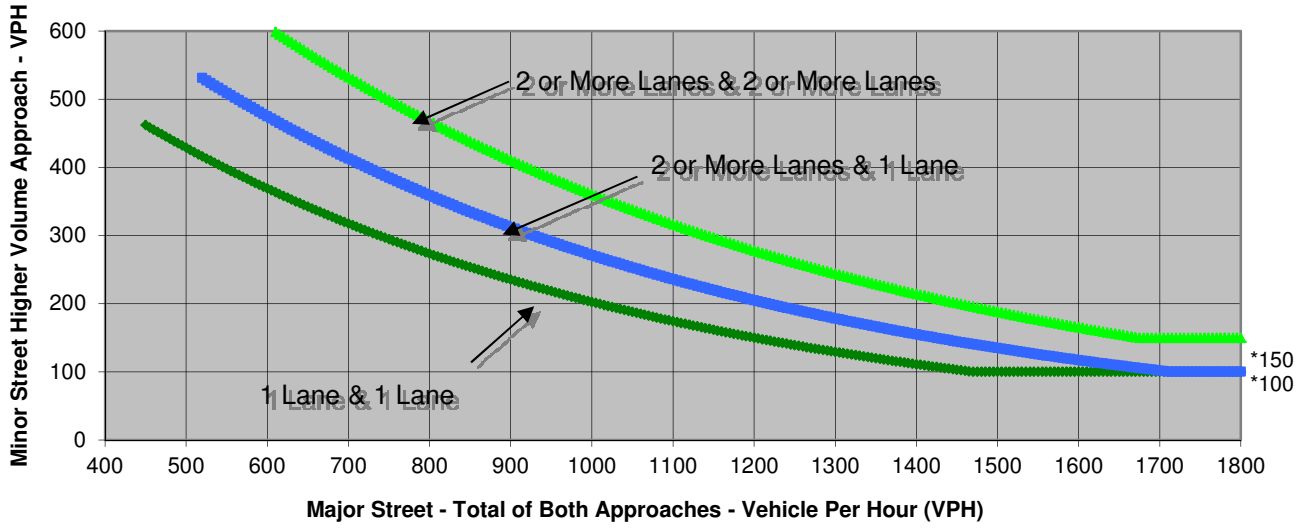
Turn Movement Volumes

	NB	SB	EB	WB
Left	60	5	5	80
Through	5	5	1,063	810
Right	30	5	30	5
Total	95	15	1,098	895

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Covell Blvd	Minor Street Monarch Ln	Warrant Met
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,993	95	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Donner Ave

Scenario: Cumulative + Project - LI
Peak Hour: AM

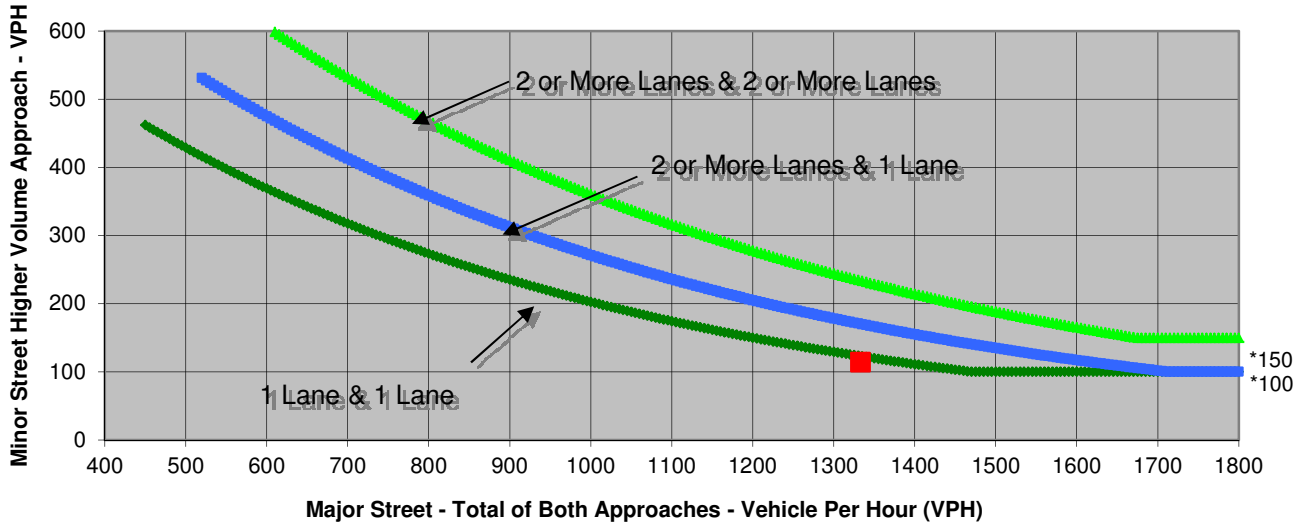
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	10	0	84
Through	572	712	0	0
Right	39	0	0	30
Total	611	722	0	114

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Donner Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,333	114	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Donner Ave

Scenario: Cumulative + Project - LI
Peak Hour: PM

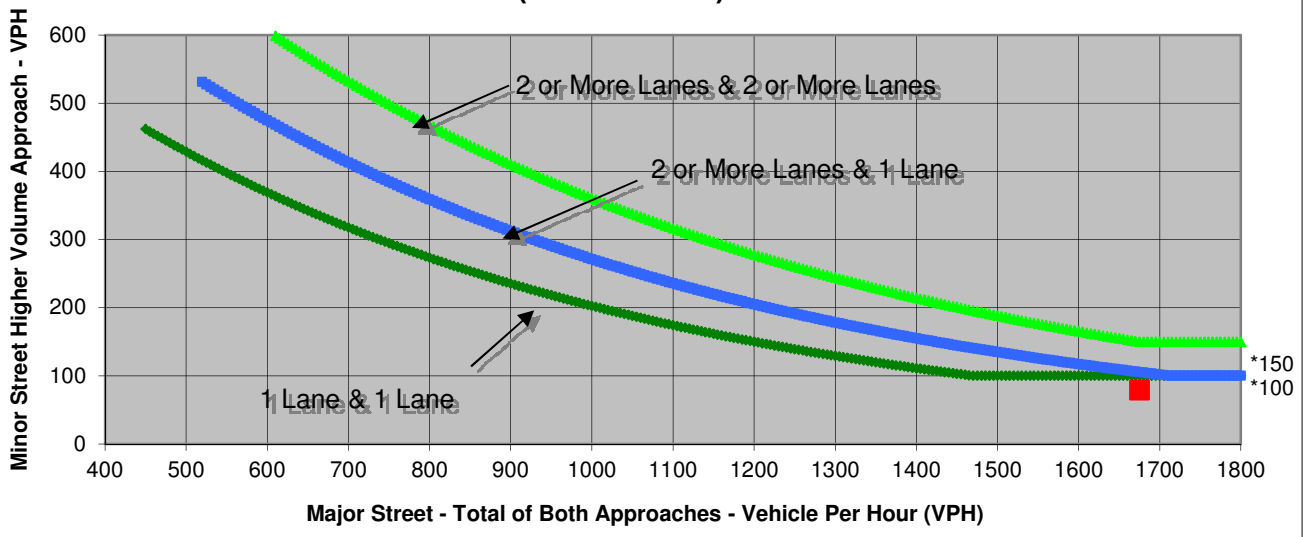
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	35	0	59
Through	815	756	0	0
Right	69	0	0	20
Total	884	791	0	79

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Pole Line Rd	Minor Street Donner Ave	Warrant Met
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,675	79	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Picasso Ave

Scenario: Cumulative + Project - LI
Peak Hour: AM

Turn Movement Volumes

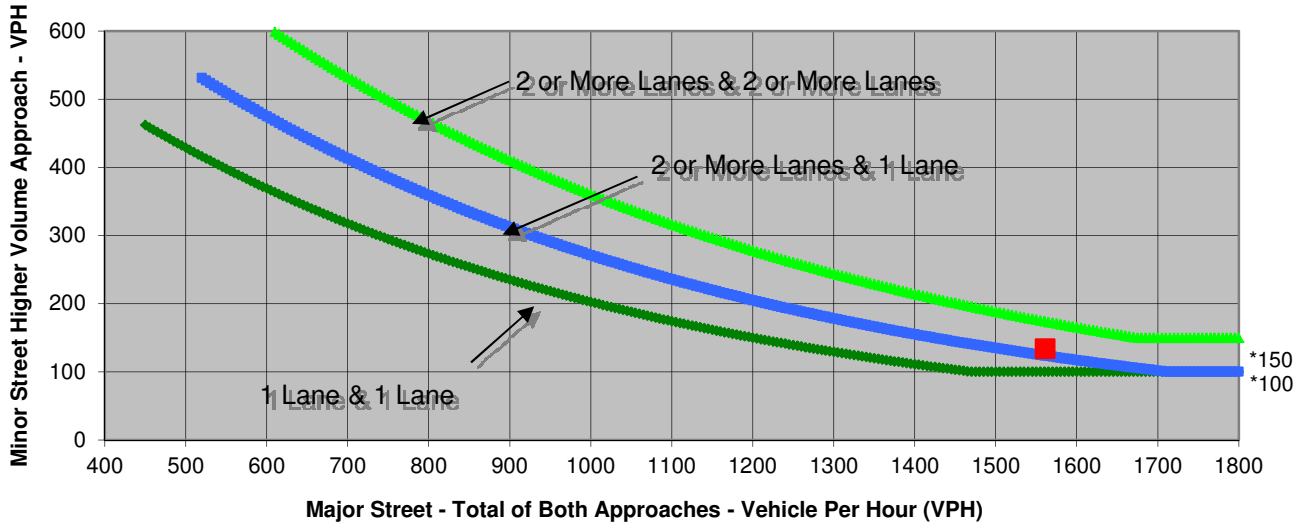
	NB	SB	EB	WB
Left	120	30	30	94
Through	541	716	5	0
Right	104	50	30	40
Total	765	796	65	134

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Picasso Ave	
Number of Approach Lanes	2	2	NO
Traffic Volume (VPH) *	1,561	134	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Picasso Ave

Scenario: Cumulative + Project - LI
Peak Hour: PM

Turn Movement Volumes

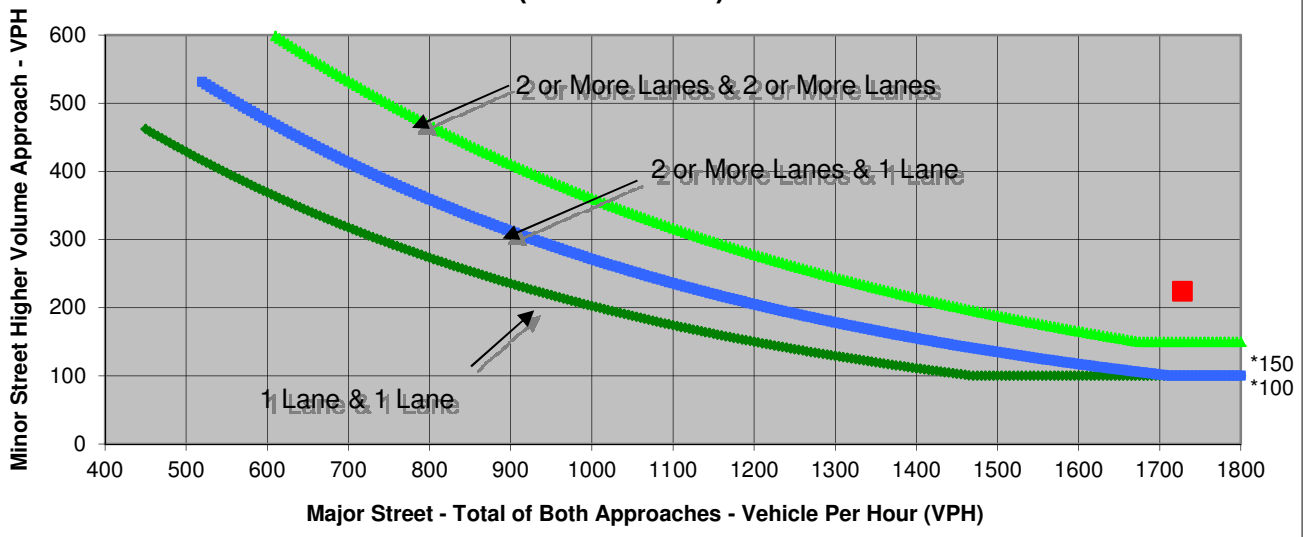
	NB	SB	EB	WB
Left	50	55	50	129
Through	744	730	5	5
Right	119	30	40	90
Total	913	815	95	224

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Pole Line Rd	Minor Street Picasso Ave	Warrant Met
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,728	224	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Moore Ave

Scenario: Cumulative + Project - LI
Peak Hour: AM

Turn Movement Volumes

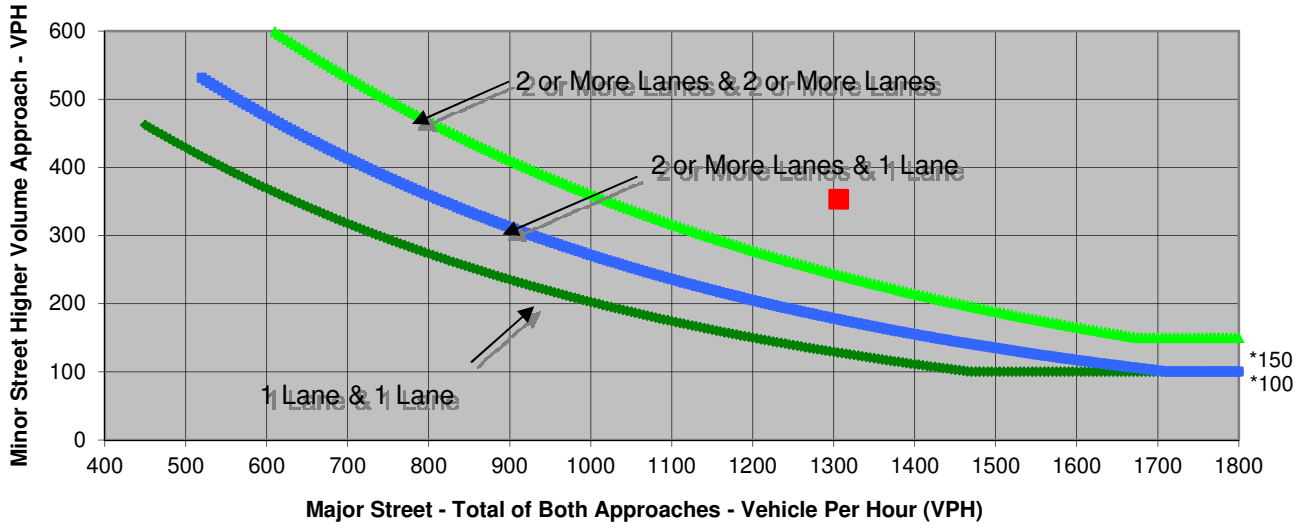
	NB	SB	EB	WB
Left	20	70	30	198
Through	483	514	5	5
Right	99	120	10	150
Total	602	704	45	353

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Moore Ave	
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,306	353	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Moore Ave

Scenario: Cumulative + Project - LI
Peak Hour: PM

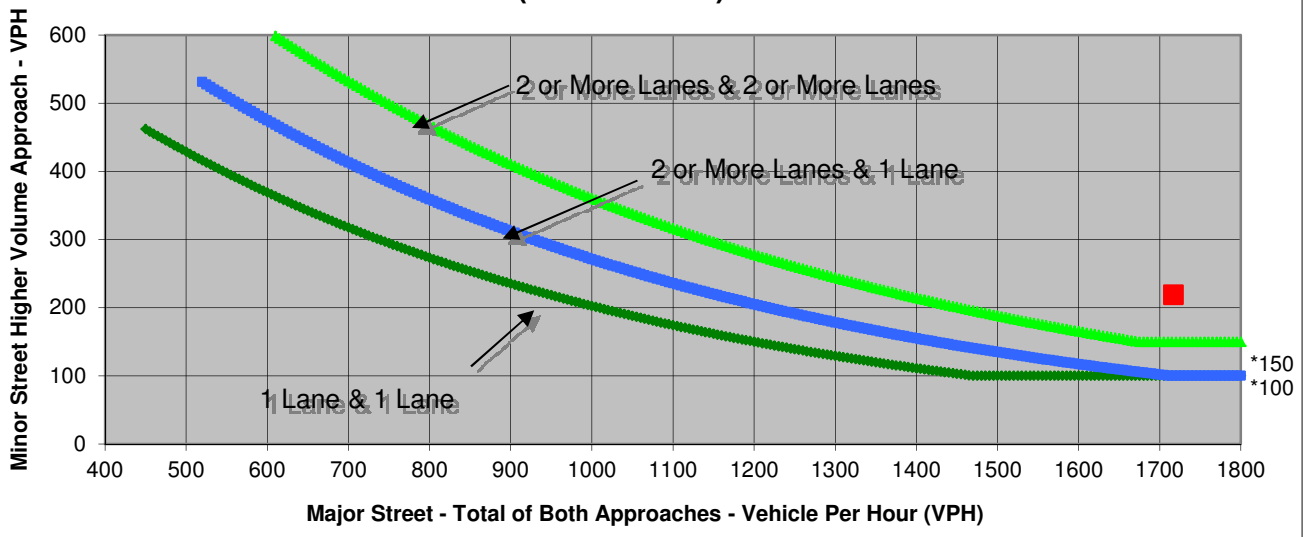
Turn Movement Volumes

	NB	SB	EB	WB
Left	20	185	80	144
Through	607	627	5	70
Right	208	70	20	5
Total	835	882	105	219

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Moore Ave	
Number of Approach Lanes	2	2	YES
Traffic Volume (VPH) *	1,717	219	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: AM

Turn Movement Volumes

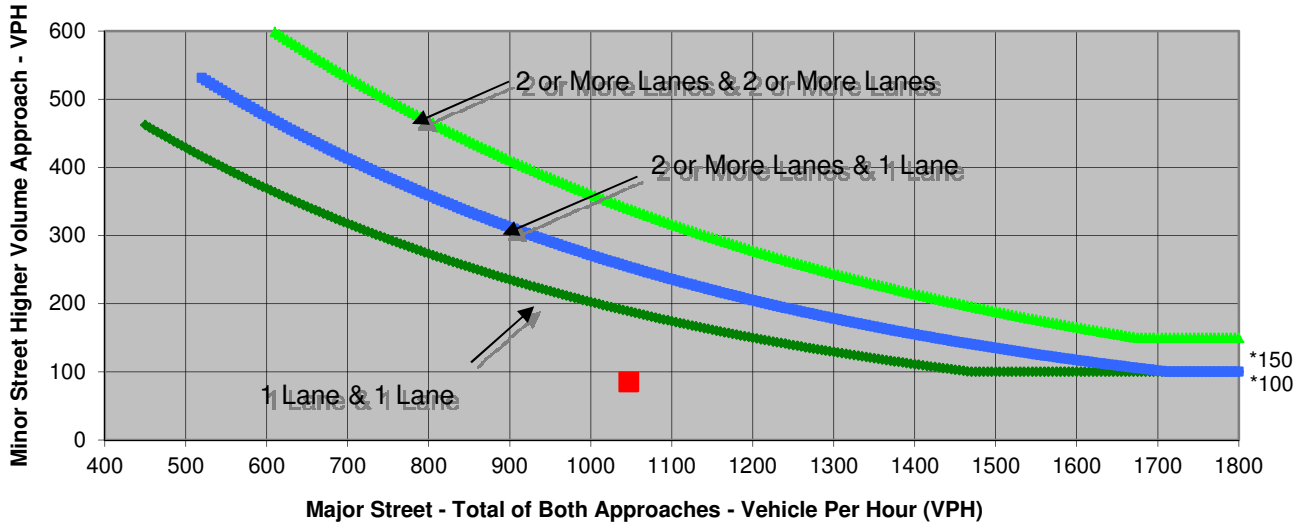
	NB	SB	EB	WB
Left	55	0	20	0
Through	488	454	0	0
Right	0	50	65	0
Total	543	504	85	0

Major Street Direction

x North/South

East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,047	85	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Pole Line Rd
Minor Street: Oak Tree Plaza Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: PM

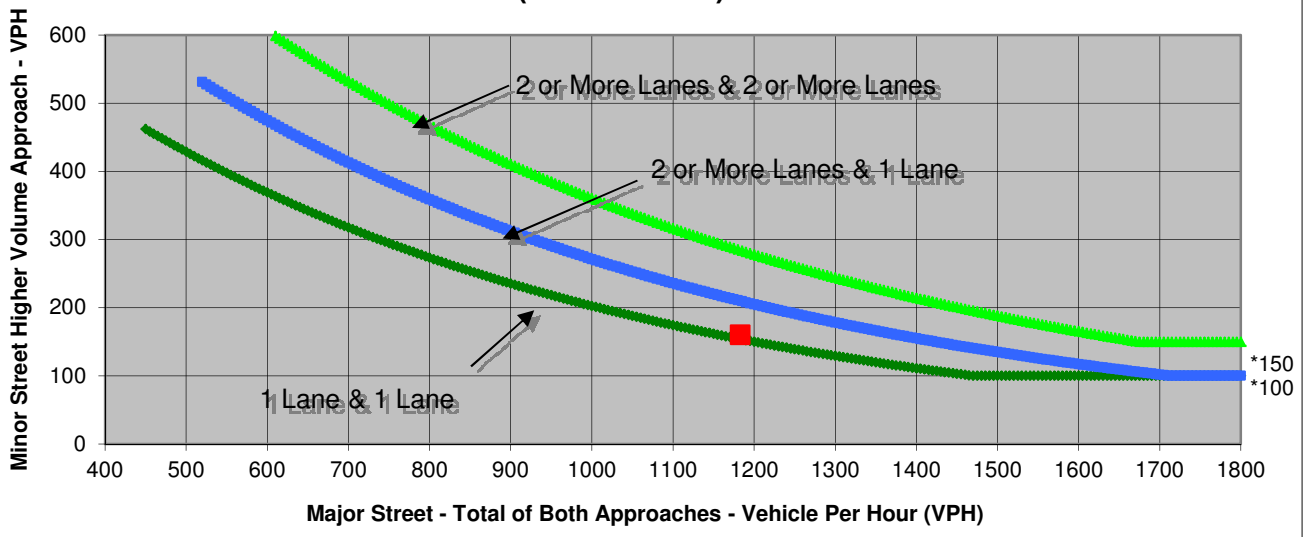
Turn Movement Volumes

	NB	SB	EB	WB
Left	90	0	55	0
Through	548	450	0	0
Right	0	95	105	0
Total	638	545	160	0

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	Pole Line Rd	Oak Tree Plaza Dvwy	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,183	160	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: L St
Minor Street: Drexel Dr

Scenario: Cumulative + Project - LI
Peak Hour: AM

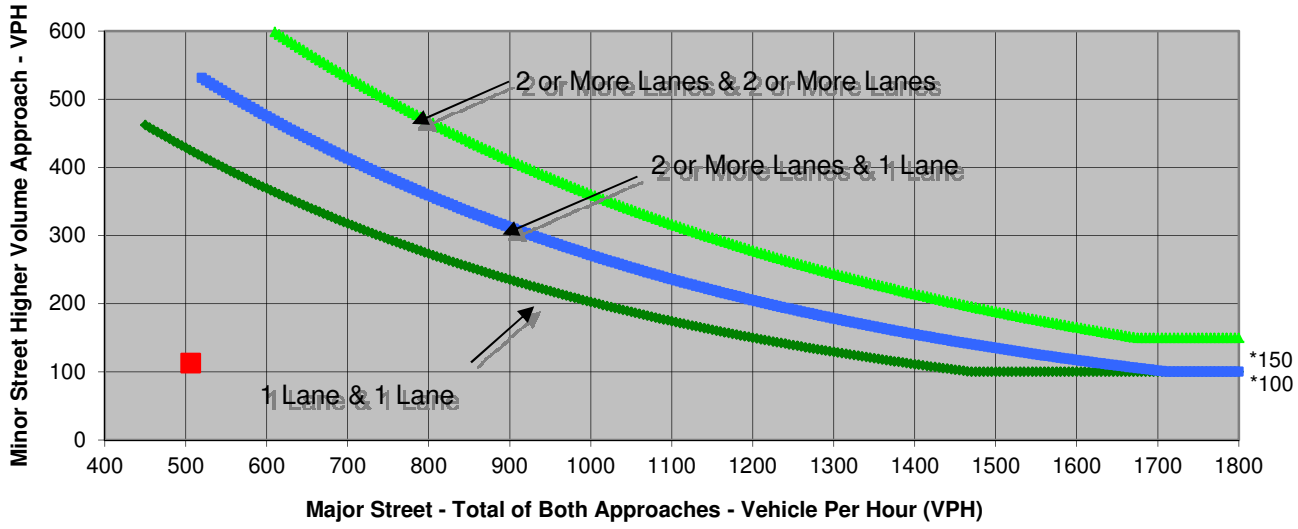
Turn Movement Volumes

	NB	SB	EB	WB
Left	20	19	45	25
Through	128	209	50	60
Right	95	35	15	28
Total	243	263	110	113

Major Street Direction

x North/South
East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	L St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	506	113	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: L St
Minor Street: Drexel Dr

Scenario: Cumulative + Project - LI
Peak Hour: PM

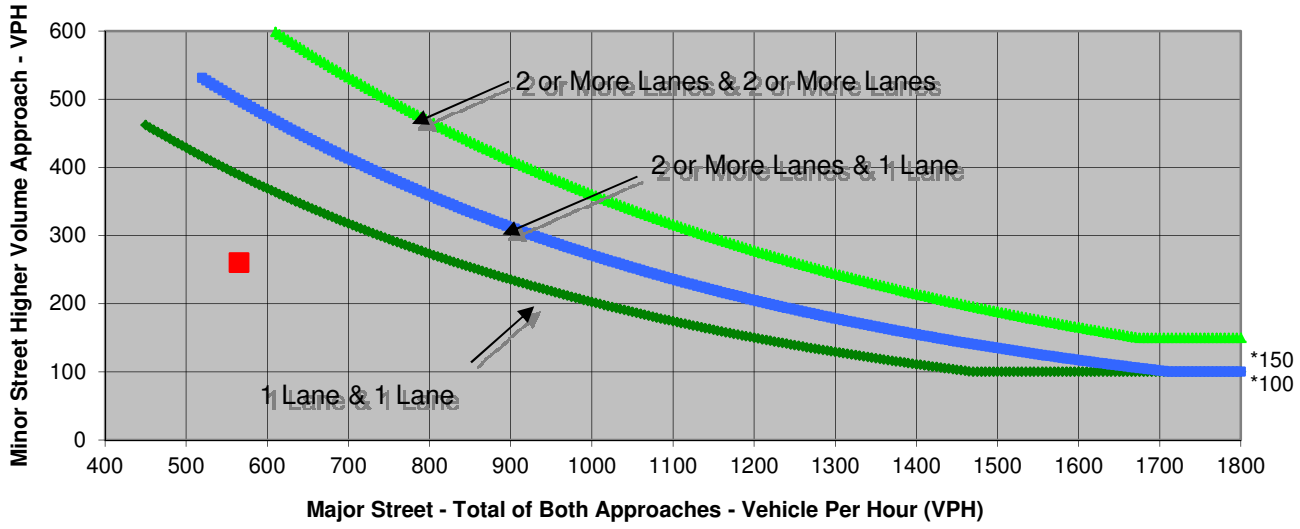
Turn Movement Volumes

	NB	SB	EB	WB
Left	35	18	45	20
Through	174	293	205	30
Right	15	30	10	19
Total	224	341	260	69

Major Street Direction

x	North/South
	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street	Minor Street	Warrant Met
	L St	Drexel Dr	
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	565	260	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 1 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Cannery Park Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: AM

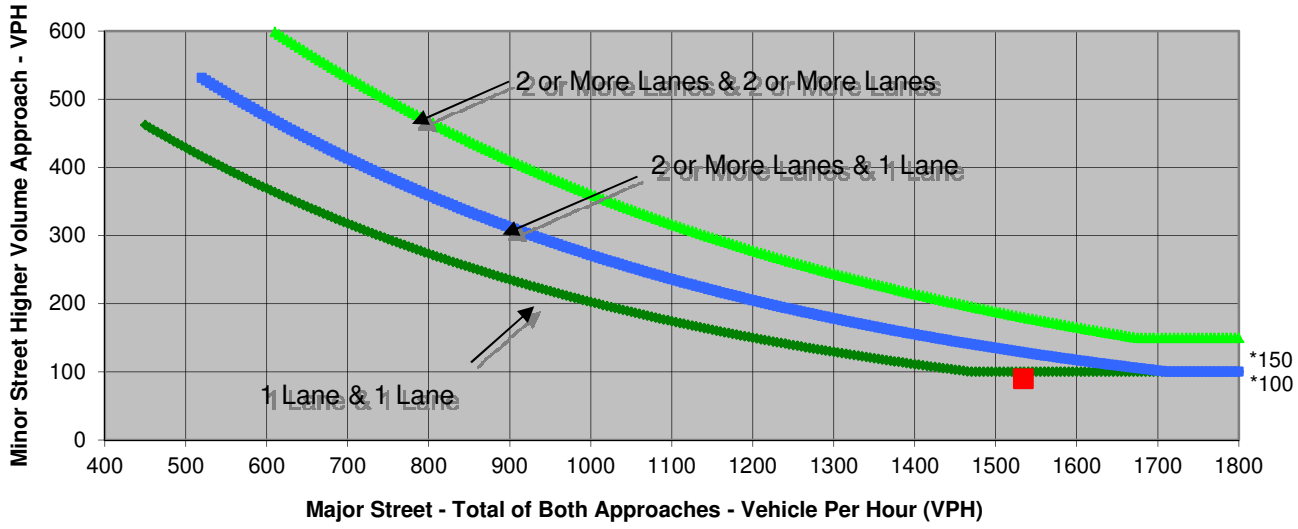
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	0	0	0
Through	0	0	0	1,388
Right	0	90	0	146
Total	0	90	0	1,534

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Covell Blvd	Minor Street Cannery Park Dvwy	Warrant Met
Number of Approach Lanes	2	1	NO
Traffic Volume (VPH) *	1,534	90	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Sheet No 2 of 2

Project: Cannery Park EIR

Major Street: Covell Blvd
Minor Street: Cannery Park Dvwy

Scenario: Cumulative + Project - LI
Peak Hour: PM

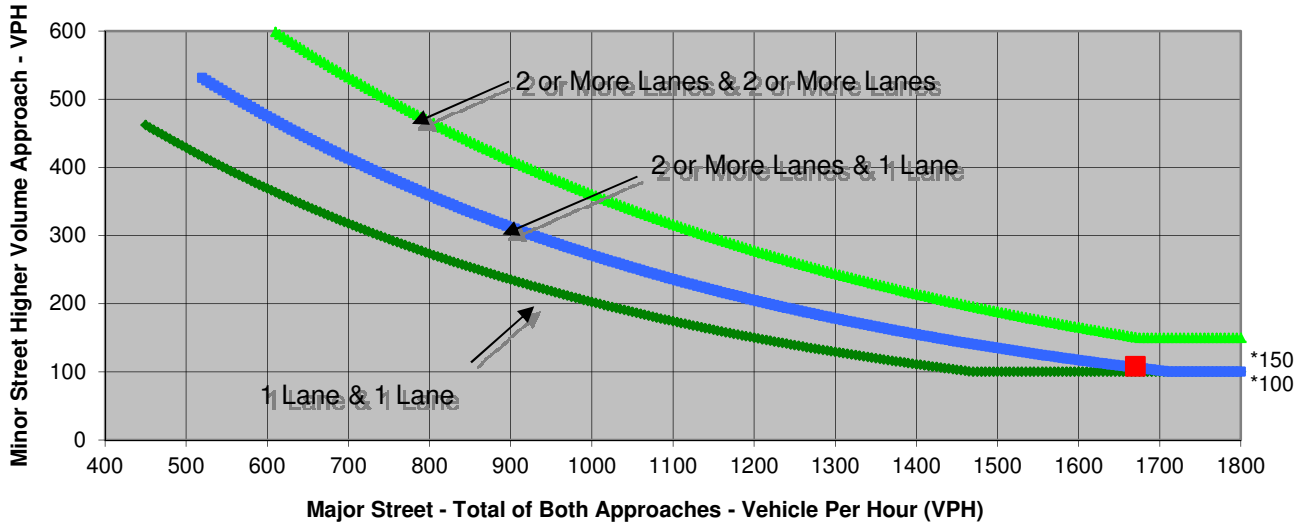
Turn Movement Volumes

	NB	SB	EB	WB
Left	0	0	0	0
Through	0	0	0	1,496
Right	0	108	0	174
Total	0	108	0	1,670

Major Street Direction

	North/South
x	East/West

Figure 4C-3
Warrant 3, Peak Hour
(Urban Areas)



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Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2010

	Major Street Covell Blvd	Minor Street Cannery Park Dvwy	Warrant Met
Number of Approach Lanes	2	1	YES
Traffic Volume (VPH) *	1,670	108	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	61	120	1368	80	65	1254	94	94	39	95	172	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0
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	0.96	1.00	0.99			1.00	0.98	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	1.00	0.85	1.00	0.99			1.00	0.85	1.00	0.90
Flt Protected		0.95	1.00	1.00	0.95	1.00			0.97	1.00	0.95	1.00
Satd. Flow (prot)		1770	3539	1526	1770	3475			1799	1550	1770	1609
Flt Permitted		0.95	1.00	1.00	0.95	1.00			0.97	1.00	0.95	1.00
Satd. Flow (perm)		1770	3539	1526	1770	3475			1799	1550	1770	1609
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.85	0.85	0.85	0.80	0.80
Adj. Flow (vph)	68	133	1520	89	72	1393	104	111	46	112	215	88
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	201	1520	89	72	1497	0	0	157	112	215	244
Confl. Peds. (#/hr)				30			30			30		
Confl. Bikes (#/hr)				5			1					
Turn Type	Prot	Prot		Free	Prot			Split		Free	Split	
Protected Phases	7	7	4		3	8		2	2		6	6
Permitted Phases				Free						Free		
Actuated Green, G (s)		11.0	47.0	97.5	5.0	41.0			13.5	97.5	16.0	16.0
Effective Green, g (s)		11.0	47.0	97.5	5.0	41.0			13.5	97.5	16.0	16.0
Actuated g/C Ratio		0.11	0.48	1.00	0.05	0.42			0.14	1.00	0.16	0.16
Clearance Time (s)		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
Lane Grp Cap (vph)		200	1706	1526	91	1461			249	1550	290	264
v/s Ratio Prot		c0.11	0.43		0.04	c0.43			c0.09		0.12	c0.15
v/s Ratio Perm				0.06						0.07		
v/c Ratio		1.00	0.89	0.06	0.79	1.02			0.63	0.07	0.74	0.92
Uniform Delay, d1		43.2	22.9	0.0	45.7	28.2			39.6	0.0	38.8	40.2
Progression Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2		64.9	6.3	0.1	36.1	30.0			5.1	0.1	9.8	35.5
Delay (s)		108.2	29.2	0.1	81.8	58.3			44.8	0.1	48.6	75.7
Level of Service		F	C	A	F	E			D	A	D	E
Approach Delay (s)			36.6			59.3			26.2			63.0
Approach LOS			D			E			C			E

Intersection Summary			
HCM Average Control Delay	47.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	97.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	125
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.80
Adj. Flow (vph)	156
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	30
Confl. Bikes (#/hr)	3
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (vph)	69	153	1449	135	75	1341	116	148	44	120	179	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0			4.0	4.0	4.0	4.0
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	0.97	1.00	0.99			1.00	0.98	1.00	0.95
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	0.90
Flt Protected		0.95	1.00	1.00	0.95	1.00			0.96	1.00	0.95	1.00
Satd. Flow (prot)		1770	3539	1528	1770	3464			1794	1550	1770	1608
Flt Permitted		0.95	1.00	1.00	0.95	1.00			0.96	1.00	0.95	1.00
Satd. Flow (perm)		1770	3539	1528	1770	3464			1794	1550	1770	1608
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	77	170	1610	150	82	1474	127	164	49	133	199	71
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	247	1610	150	82	1601	0	0	213	133	199	195
Confl. Peds. (#/hr)				30			30			30		
Confl. Bikes (#/hr)									1			1
Turn Type	Prot	Prot		Free	Prot			Split		Free	Split	
Protected Phases	7	7	4		3	8		2	2		6	6
Permitted Phases				Free						Free		
Actuated Green, G (s)		14.0	57.0	108.6	5.0	48.0			15.3	108.6	15.3	15.3
Effective Green, g (s)		14.0	57.0	108.6	5.0	48.0			15.3	108.6	15.3	15.3
Actuated g/C Ratio		0.13	0.52	1.00	0.05	0.44			0.14	1.00	0.14	0.14
Clearance Time (s)		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
Lane Grp Cap (vph)		228	1857	1528	81	1531			253	1550	249	227
v/s Ratio Prot		c0.14	0.45		0.05	c0.46			c0.12		0.11	c0.12
v/s Ratio Perm				0.10						0.09		
v/c Ratio		1.08	0.87	0.10	1.01	1.05			0.84	0.09	0.80	0.86
Uniform Delay, d1		47.3	22.5	0.0	51.8	30.3			45.5	0.0	45.2	45.6
Progression Factor		1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2		83.6	4.6	0.1	103.4	36.0			21.6	0.1	16.2	26.0
Delay (s)		130.9	27.1	0.1	155.2	66.3			67.1	0.1	61.4	71.6
Level of Service		F	C	A	F	E			E	A	E	E
Approach Delay (s)			37.8			70.6			41.3			66.5
Approach LOS			D			E			D			E

Intersection Summary			
HCM Average Control Delay	53.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	108.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SBR
Lane Configurations	
Volume (vph)	112
Ideal Flow (vphpl)	1900
Total Lost time (s)	
Lane Util. Factor	
Frpb, ped/bikes	
Flpb, ped/bikes	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	124
RTOR Reduction (vph)	0
Lane Group Flow (vph)	0
Confl. Peds. (#/hr)	30
Confl. Bikes (#/hr)	
Turn Type	
Protected Phases	
Permitted Phases	
Actuated Green, G (s)	
Effective Green, g (s)	
Actuated g/C Ratio	
Clearance Time (s)	
Vehicle Extension (s)	
Lane Grp Cap (vph)	
v/s Ratio Prot	
v/s Ratio Perm	
v/c Ratio	
Uniform Delay, d1	
Progression Factor	
Incremental Delay, d2	
Delay (s)	
Level of Service	
Approach Delay (s)	
Approach LOS	

Intersection Summary