

Appendix B

Additional Technical Traffic Data

A.1 – VISSIM CALCULATION SHEETS – EXISTING CONDITIONS

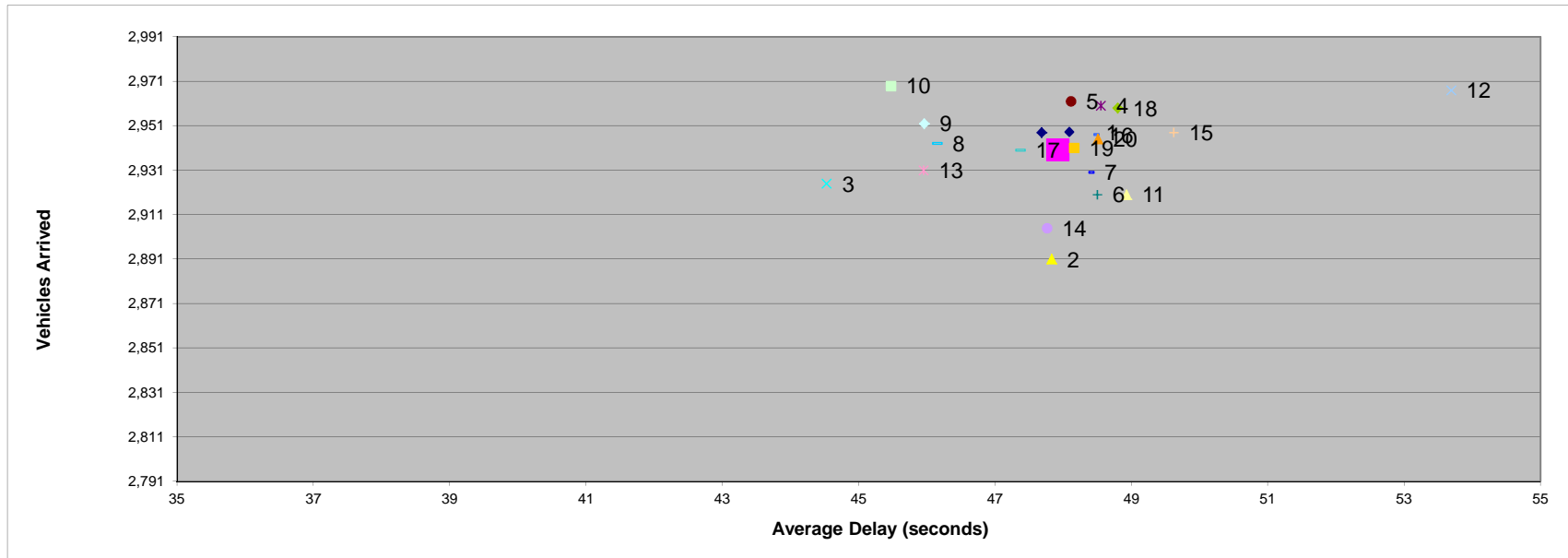


Vissim Post-Processor
Average Results from 20 Runs
Network Statistics

Davis Nishi EIR
Existing No Project
AM Peak Hour

Performance Measure	Run Number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Average Delay (seconds)	3	47.68	47.83	44.53	48.55	48.11	48.50	48.38	46.15	45.96	45.47	48.93	53.69	45.95	47.76	49.62	48.45	47.37	48.80	48.16	48.51
Total Delay (hours)	4	144,984	142,726	134,264	148,821	146,353	146,028	146,111	140,795	140,633	138,766	147,827	164,385	138,681	142,608	150,485	147,764	144,206	149,658	146,795	147,117
Average Stopped Delay (second)	5	29.22	29.63	26.83	30.35	29.93	29.77	29.82	28.17	27.70	27.85	29.99	33.89	28.13	29.32	31.30	30.00	29.25	30.67	29.68	30.17
Total Stopped Delay (hours)	6	88,845	88,405	80,898	93,037	91,048	89,645	90,054	85,942	84,755	85,008	90,614	103,766	84,901	87,563	94,943	91,499	89,024	94,080	90,459	91,512
Total Distance Traveled (miles)	7	1,614	1,593	1,599	1,628	1,637	1,615	1,607	1,619	1,624	1,630	1,609	1,611	1,599	1,604	1,611	1,620	1,612	1,627	1,616	1,625
Average Speed (mph)	8	16.96	16.97	17.43	16.84	17.00	16.91	16.87	17.19	17.21	17.36	16.80	16.06	17.21	17.04	16.68	16.83	17.00	16.80	16.88	16.92
Average Number of Stops	9	1.40	1.41	1.36	1.39	1.40	1.41	1.39	1.39	1.37	1.37	1.45	1.49	1.35	1.44	1.42	1.40	1.38	1.39	1.44	1.41
Total Number of Stops	10	4,256	4,200	4,102	4,274	4,261	4,235	4,208	4,252	4,193	4,182	4,384	4,554	4,079	4,292	4,304	4,285	4,214	4,272	4,375	4,279
Total Travel Time (hours)	11	342,630	337,859	330,316	348,063	346,704	343,909	342,811	339,165	339,636	338,009	344,800	361,236	334,650	338,913	347,668	346,351	341,272	348,642	344,573	345,760
Vehicles Active	12	93	93	90	105	80	91	90	108	108	83	101	95	87	81	85	103	104	108	107	88
Vehicles Arrived	13	2,948	2,891	2,925	2,960	2,962	2,920	2,930	2,943	2,952	2,969	2,920	2,967	2,931	2,905	2,948	2,947	2,940	2,959	2,941	2,945

Include? x



Note: Set the minimum value for each axis scale.

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 20 D St/1st St

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay											
		1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS						
NB	UT																																					
	LD																																					
	LT	5	6	7	2	7	5	6	3	9	7	4	6	112.0%	2.1	2	9	0.3	6.5	21.8	14.5	30.4	31.0	8.6	20.3	17.4	19.3	10.5	6.1	6.9	6.5	31.0	A					
	TH	2	1	3	3	0	2	3	2	2	0	0	2	80.0%	1.3	0	3	0.3	5.3	12.5	20.3	0.0	15.7	11.5	11.3	17.8	0.0	0.0	0.7	2.3	0.0	20.3	A					
	RT	16	17	15	19	18	17	15	19	13	18	20	17	106.9%	2.2	13	20	0.3	9.0	5.9	6.4	5.9	5.9	6.6	4.9	5.4	5.7	5.9	5.2	0.7	4.9	9.0	A					
RD																																						
App.	23	24	25	24	25	24	24	24	24	25	24	24	105.7%	0.5	24	25	0.3	7.8	9.9	10.4	11.7	10.2	6.4	6.8	12.9	8.7	5.4	5.4	1.8	5.4	12.9	A						
SB	UT																																					
	LD																																					
	LT	28	26	36	29	30	33	27	30	20	22	26	28	99.6%	4.8	20	36	0.0	15.7	16.0	16.0	16.3	13.4	11.0	13.9	15.6	13.1	16.6	13.4	2.6	11.0	16.6	B					
	TH	14	10	12	13	12	13	9	13	17	17	11	13	90.7%	2.6	9	17	0.4	16.2	18.9	17.0	19.8	20.0	16.2	14.1	16.6	22.3	23.1	11.7	3.9	14.1	23.1	B					
	RT	12	17	4	11	11	9	16	10	16	15	17	13	105.0%	4.3	4	17	0.2	9.5	12.0	10.1	9.0	15.8	9.2	8.1	9.3	15.0	11.9	6.9	2.0	8.1	15.8	A					
RD																																						
App.	54	53	52	53	53	55	52	53	53	54	54	53	98.5%	0.9	52	55	0.1	14.9	12.8	14.4	13.3	15.7	9.8	11.9	13.8	13.4	11.0	11.6	2.1	9.8	15.7	B						
EB	UT																																					
	LD																																					
	LT	2	0	4	3	2	2	1	0	1	5	1	2	95.0%	1.7	0	5	0.1	0.0	18.5	7.6	14.7	51.1	11.2	0.0	6.0	11.2	36.5	7.2	15.9	0.0	51.1	A					
	TH	230	230	225	233	235	235	234	236	229	238	237	233	101.4%	4.0	225	238	0.2	10.1	8.5	7.8	10.4	10.3	16.4	10.9	9.2	7.3	16.9	6.8	2.6	7.3	16.9	A					
	RT	17	19	21	18	13	18	18	15	17	10	16	17	97.1%	3.2	10	21	0.1	13.7	8.7	11.8	2.6	11.3	28.3	13.5	9.3	2.2	9.9	6.9	6.4	2.2	28.3	A					
RD																																						
App.	249	249	250	254	250	255	253	251	247	253	254	252	101.0%	2.6	247	255	0.2	10.3	7.9	8.1	10.0	11.0	16.9	10.7	8.5	7.4	16.2	6.9	2.7	7.4	16.9	A						
WB	UT																																					
	LD																																					
	LT	22	15	23	14	22	29	17	16	16	21	25	20	90.0%	5.0	14	29	0.5	18.1	7.7	9.5	16.9	12.2	9.0	11.5	18.3	11.0	16.5	6.6	1.3	7.7	18.3	A					
	TH	429	403	417	456	424	412	427	414	435	428	448	426	99.4%	16.4	403	456	0.1	5.6	6.5	4.6	7.6	8.0	6.7	6.0	4.3	7.4	5.4	5.0	1.6	4.3	8.0	A					
	RT	53	76	53	60	68	63	69	60	67	66	58	64	120.8%	6.6	53	76	1.4	5.7	6.4	7.1	4.5	5.8	4.7	3.3	2.5	8.3	3.8	3.8	0.7	2.5	8.3	A					
RD																																						
App.	504	494	493	530	514	504	513	490	518	515	531	510	101.2%	14.7	490	531	0.3	5.5	6.5	4.8	7.4	7.1	6.6	5.8	4.1	7.5	5.2	4.9	1.4	4.1	7.5	A						
TOTAL	830	820	820	861	842	838	842	818	842	847	863	839	101.1%	16.0	818	863	0.3	7.0	7.2	6.3	7.7	8.5	8.0	7.5	5.7	7.6	8.4	6.0	1.5	5.7	8.5	A						
																		Highest Movement Delay										13.4	2.6	11.0	16.6	B						

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 21 E St/1st St

Signal

		Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served						Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay				
			1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS
NB	UT																																
	LD																																
	LT	477	469	471	497	483	480	489	460	488	489	500	483	101.2%	12.7	460	500	0.3	20.7	18.8	19.2	19.7	18.9	18.1	20.4	21.9	26.5	21.8	18.0	2.6	18.1	26.5	B
	TH	88	84	71	89	95	77	94	70	83	100	81	84	95.9%	10.1	70	100	0.4	19.4	20.6	23.5	21.7	19.0	21.8	24.0	21.2	29.0	27.4	17.5	3.5	19.0	29.0	B
	RT	251	254	259	253	224	229	247	238	233	244	217	240	95.5%	13.9	217	259	0.7	4.8	5.6	4.9	6.3	3.8	5.5	5.6	6.9	7.4	6.7	4.4	1.1	3.8	7.4	A
	RD																																
	App.	816	807	801	839	802	786	830	768	804	833	798	807	98.9%	22.0	768	839	0.3	15.2	13.6	15.4	16.4	15.1	14.2	15.2	18.5	21.6	18.4	14.0	1.9	13.6	21.6	B
SB	UT																																
	LD																																
	LT																																
	TH	91	95	96	89	81	102	89	95	93	89	103	93	102.4%	6.6	81	103	0.2	37.3	33.2	41.0	40.7	36.3	32.0	30.0	33.7	37.7	32.8	30.5	3.0	30.0	41.0	C
	RT	12	11	12	19	14	8	10	10	13	12	13	12	101.7%	3.0	8	19	0.1	7.3	27.1	24.0	15.3	6.3	10.4	15.8	46.4	11.4	13.9	10.9	13.1	6.3	46.4	B
	RD																																
	App.	103	106	108	108	95	110	99	105	106	101	116	105	102.3%	5.9	95	116	0.2	36.2	32.8	36.6	35.5	32.6	28.9	28.9	35.0	32.9	29.8	28.4	3.9	28.9	36.6	C
EB	UT																																
	LD																																
	LT	2	2	3	1	2	2	1	4	0	1	5	2	105.0%	1.5	0	5	0.1	65.4	29.2	22.9	55.1	59.1	21.7	36.5	0.0	50.5	55.2	14.7	18.7	0.0	65.4	B
	TH	10	4	8	8	8	11	12	14	12	14	5	10	96.0%	3.5	4	14	0.1	34.3	48.1	84.8	35.1	63.9	53.4	38.8	70.2	55.3	66.3	34.8	22.4	34.3	84.8	C
	RT	262	265	269	270	277	273	264	269	254	265	272	268	102.2%	6.3	254	277	0.4	13.4	18.1	12.7	14.5	12.5	15.7	12.0	13.4	12.6	13.8	11.5	1.3	12.0	18.1	B
	RD																																
	App.	274	271	280	279	287	286	277	287	266	280	282	280	102.0%	6.9	266	287	0.3	13.6	17.3	14.1	15.3	14.0	15.8	13.2	15.5	15.0	15.1	12.8	1.9	13.2	17.3	B
WB	UT																																
	LD																																
	LT	112	115	108	111	112	103	108	110	113	101	114	110	97.8%	4.6	101	115	0.2	35.5	33.6	44.5	34.3	47.0	43.0	33.3	43.8	33.7	34.9	33.3	3.3	33.3	47.0	C
	TH	15	7	19	13	15	18	13	15	17	13	14	14	96.0%	3.4	7	19	0.2	58.2	56.3	39.0	35.3	49.0	63.0	43.4	53.7	51.1	46.6	37.8	10.2	35.3	63.0	D
	RT	3	4	2	1	5	1	4	1	3	3	3	3	90.0%	1.4	1	5	0.2	3.7	50.8	36.3	6.0	4.8	71.9	4.5	5.5	5.8	29.9	5.9	11.3	3.7	71.9	A
	RD																																
	App.	130	126	129	125	132	122	125	126	133	117	131	127	97.4%	4.9	117	133	0.3	36.7	37.1	41.4	33.6	46.0	47.2	33.2	41.9	31.2	32.6	33.0	3.2	31.2	47.2	C
TOTAL		1323	1,310	1,318	1,351	1,316	1,304	1,331	1,286	1,309	1,331	1,327	1,318	99.6%	17.9	1286	1351	0.1	17.6	17.5	18.6	18.8	17.2	17.7	17.4	20.1	20.2	19.8	16.6	1.3	17.2	20.2	B
																			Highest Movement Delay										37.8	10.2	35.3	63.0	D

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 22 F St/1st St

Side-street Stop

		Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served						Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay																																																																					
			1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS																																																																	
NB	UT	1	0	0	0	0	0	0	0	0	0	0	0	0.0%	0.0	0	0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A																																																																	
	LD																																	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A																																		
	App.	1	0	0	0	0	0	0	0	0	0	0	0	0.0%	0.0	0	0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																																A																																	
SB	UT	3	5	4	6	3	3	2	2	0	6	4	4	116.7%	1.9	0	6	0.3	9.8	14.7	13.5	11.7	9.2	5.9	17.8	0.0	12.4	9.9	7.3	6.1	0.0	17.8	A																																																																	
	LD																																	72	71	72	71	71	72	72	69	80	66	73	72	99.6%	3.5	66	80	0.0	6.6	6.8	5.5	5.6	6.2	5.9	8.7	7.5	9.2	6.6	6.3	1.5	5.5	9.2	6.6	A																																
	TH																																																																		76	76	77	74	75	74	71	80	72	77	75	100.3%	2.6	71	80	0.0	6.4	7.2	6.3	5.9	6.3	5.6	9.2	7.2	9.2	6.3	6.5	1.6	5.6	9.2	6.3	A
	RT																																																																																																	
RD	76	76	77	74	75	74	71	80	72	77	75	100.3%	2.6	71	80	0.0	6.4	7.2	6.3	5.9	6.3	5.6	9.2	7.2	9.2	6.3	6.5	1.6	5.6	9.2	6.3	A																																																																		
App.																																	75	76	76	77	74	75	74	71	80	72	77	75	100.3%	2.6	71	80	0.0	6.4	7.2	6.3	5.9	6.3	5.6	9.2	7.2	9.2	6.3	6.5	1.6	5.6	9.2	6.3	A																																	
EB																																	UT	122	124	113	127	119	131	136	127	130	123	108	124	101.5%	8.5	108	136	0.2	0.8	0.7	0.5	2.0	0.9	0.8	0.8	0.8	0.9	0.7	0.4	0.1	0.5	2.0	A																																	
																																	LD																																	138	146	164	142	132	117	136	138	127	149	119	137	99.3%	14.3	117	164	0.1	1.1	0.6	1.1	1.5	1.2	1.7	1.6	0.5	1.2	1.1	0.7	0.6	0.5	1.7	A	
	TH	1	3	0	0	1	0	0	0	0	4	2	1	100.0%	1.5	0	4	0.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.1	0.0	0.6	A																																																																	
	RT																																																																																																	1
RD	1																																	3	0	0	1	0	0	0	0	4	2	1	100.0%	1.5	0	4	0.0	0.6	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.6	0.3	0.0	0.1	0.0	0.6	A																																		
App.																																																																	261	273	277	269	252	248	272	265	257	276	229	262	100.3%	15.3	229	277	0.0	1.0	0.6	0.7	1.1	0.8	1.4	1.1	0.4	1.1	0.9	0.6	0.4	0.4	1.4	0.9	A	
WB		UT	57	54	57	55	59	50	53	54	54	54	53	54	95.3%	2.4	50	59	0.4	9.4	9.2	9.1	8.9	8.6	10.7	8.9	13.5	9.9	9.4	8.2	1.0	8.6	13.5																																A																																	
		LD																																																																4	5	3	4	1	4	2	9	4	6	5	4	107.5%	2.2	1	9	0.1	6.5	5.1	5.4	6.2	7.2	9.6	10.9	5.0	6.6	12.0	4.1	3.5	5.0	12.0	A	
	TH	61																																59	60	59	60	54	55	63	58	60	58	59	96.1%	2.6	54	63	0.3	8.9	8.7	8.9	8.4	8.4	10.1	9.1	12.8	9.4	9.7	7.9	1.0	8.4	12.8	A																																		
	RT																																																																																																	61
RD	61		59	60	59	60	54	55	63	58	60	58	59	96.1%	2.6	54	63	0.3	8.9	8.7	8.9	8.4	8.4	10.1	9.1	12.8	9.4	9.7	7.9	1.0	8.4	12.8	A																																																																	
App.																																																																	61	59	60	59	60	54	55	63	58	60	58	59	96.1%	2.6	54	63	0.3	8.9	8.7	8.9	8.4	8.4	10.1	9.1	12.8	9.4	9.7	7.9	1.0	8.4	12.8	A		
TOTAL		398																																408	413	405	386	377	401	399	395	408	364	396	99.4%	15.6	364	413	0.1	2.9	2.9	2.6	3.2	2.8	2.8	3.3	3.2	3.4	3.6	2.8	0.4	2.6	3.6	A																																		
																																		Highest Movement Delay																								8.2	1.0	8.6	13.5	A																																				

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 25 Olive Dr/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served						Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay					
		1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS	
NB	UT																																
	LD																																
	LT	21	16	24	25	21	23	20	22	24	18	20	21	101.4%	2.9	16	25	0.1	38.8	29.6	37.7	33.9	16.3	32.3	34.0	26.9	25.1	26.6	23.7	9.9	16.3	38.8	C
	TH	1	4	2	1	1	2	1	4	1	2	5	2	230.0%	1.5	1	5	1.0	46.9	33.9	26.8	28.6	26.6	20.0	12.0	61.5	45.6	29.9	17.1	19.7	12.0	61.5	B
	RT RD	51	55	47	47	52	48	49	46	47	51	48	49	96.1%	2.8	46	55	0.3	8.6	13.3	10.4	10.8	8.6	7.9	14.5	12.1	9.5	10.8	8.3	2.3	7.9	14.5	A
	App.	73	75	73	73	74	73	70	72	72	71	73	73	99.5%	1.4	70	75	0.0	15.3	17.7	16.8	16.7	11.9	11.0	18.0	16.6	15.3	16.9	13.3	3.3	11.0	18.0	B
SB	UT																																
	LD																																
	LT	62	68	65	66	49	65	61	67	65	61	74	64	103.4%	6.5	49	74	0.3	24.8	18.7	25.4	28.2	18.3	22.9	20.5	29.2	27.6	20.6	18.2	3.8	18.3	29.2	B
	TH	22	27	20	19	24	20	18	22	18	23	14	21	93.2%	3.7	14	27	0.3	30.3	43.0	28.5	35.6	27.8	46.4	36.8	28.5	40.4	29.1	28.7	9.3	27.8	46.4	C
	RT RD	122	109	118	120	129	118	125	115	121	122	114	119	97.6%	5.7	109	129	0.3	22.6	24.2	19.9	21.2	20.6	24.0	23.9	21.3	23.5	22.1	18.3	3.5	19.9	24.2	B
	App.	206	204	203	205	202	203	204	204	204	206	202	204	98.9%	1.3	202	206	0.2	22.3	21.8	21.8	23.2	20.0	25.0	22.8	21.8	25.4	22.3	19.4	3.3	20.0	25.4	B
EB	UT																																
	LD																																
	LT	23	26	21	23	17	20	23	34	24	25	24	24	103.0%	4.5	17	34	0.1	32.6	31.5	32.5	39.1	43.2	22.2	28.0	31.4	28.6	29.1	27.9	7.7	22.2	43.2	C
	TH	412	410	423	421	421	427	404	418	400	396	449	417	101.2%	15.4	396	449	0.2	10.9	11.3	9.0	9.7	11.6	9.2	10.6	11.6	9.2	11.0	7.7	1.7	9.0	11.6	A
	RT RD	30	38	30	28	26	31	29	27	35	27	17	29	96.0%	5.6	17	38	0.2	8.2	10.6	7.5	9.4	9.5	10.0	11.7	6.3	9.5	9.1	4.7	2.2	6.3	11.7	A
	App.	465	474	474	472	464	478	456	479	459	448	490	469	100.9%	12.5	448	490	0.2	11.1	11.3	9.5	9.9	11.7	9.4	12.1	12.5	10.2	11.7	8.5	1.4	9.4	12.5	A
WB	UT																																
	LD																																
	LT	43	51	56	35	41	42	58	49	50	41	50	47	110.0%	7.3	35	58	0.6	31.3	28.1	30.3	32.2	27.9	31.8	30.8	37.4	29.5	26.0	25.9	5.9	26.0	37.4	C
	TH	673	680	657	689	646	646	683	634	655	692	664	665	98.8%	20.3	634	692	0.3	20.8	23.3	19.6	25.4	14.7	21.1	16.5	16.9	21.1	19.3	18.9	4.1	14.7	25.4	B
	RT RD	25	30	27	28	24	28	28	33	18	28	20	26	105.6%	4.5	18	33	0.3	1.0	1.2	1.5	0.6	0.8	1.0	0.8	0.7	1.0	0.6	0.7	0.3	0.6	1.5	A
	App.	741	761	740	752	711	716	769	716	723	761	734	738	99.6%	21.5	711	769	0.1	20.6	22.4	19.1	25.1	15.1	21.2	16.7	17.7	20.6	18.8	18.7	3.9	15.1	25.1	B
	TOTAL	1485	1,514	1,490	1,502	1,451	1,470	1,499	1,471	1,458	1,486	1,499	1,484	99.9%	20.7	1451	1514	0.0	17.2	16.9	15.9	18.8	13.7	17.1	16.0	15.0	16.7	15.6	15.4	2.3	13.7	18.8	B
																		Highest Movement Delay										28.7	9.3	27.8	46.4	C	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 27 I-80 WB Ramps/Richards Blvd

Uncontrolled

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay					
		1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS
NB UT LD LT TH RT RD	199	200	199	197	200	202	199	199	199	199	198	199	100.1%	1.3	197	202	0.0	0.9	0.6	0.6	0.6	0.6	0.6	0.9	0.5	0.7	0.5	0.5	0.1	0.5	0.9	A
	App.	199	200	199	197	200	202	199	199	199	199	198	199	100.1%	1.3	197	202	0.0	0.9	0.6	0.6	0.6	0.6	0.6	0.9	0.5	0.7	0.5	0.5	0.1	0.5	0.9
SB UT LD LT TH RT RD	384	383	384	386	382	379	384	382	378	384	380	382	99.5%	2.5	378	386	0.1	1.2	0.9	1.0	1.0	0.9	0.8	0.9	0.7	0.9	0.9	0.9	0.1	0.7	1.2	A
	App.	384	383	384	386	382	379	384	382	378	384	380	382	99.5%	2.5	378	386	0.1	1.2	0.9	1.0	1.0	0.9	0.8	0.9	0.7	0.9	0.9	0.9	0.1	0.7	1.2
EB UT LD LT TH RT RD	404	421	412	413	416	407	380	420	410	390	457	413	102.1%	20.3	380	457	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	A
	151	143	165	150	138	171	157	149	135	151	145	150	99.6%	11.3	135	171	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.1	0.1	0.1	0.1	0.0	0.1	0.5	A
App.	555	564	577	563	554	578	537	569	545	541	602	563	101.4%	19.8	537	602	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	A
WB UT LD LT TH RT RD	414	438	424	441	392	394	437	399	399	445	404	417	100.8%	21.7	392	445	0.2	4.4	4.4	2.9	6.1	2.4	5.2	2.0	2.4	4.0	2.8	3.6	1.4	2.0	6.1	A
	387	354	385	388	377	387	407	387	407	356	387	384	99.1%	17.7	354	407	0.2	1.8	2.1	1.7	2.0	2.1	2.2	2.4	2.2	1.7	2.1	1.4	0.2	1.7	2.4	A
App.	801	792	809	829	769	781	844	786	806	801	791	801	100.0%	22.5	769	844	0.0	3.1	3.0	2.2	3.9	2.2	3.7	2.2	2.1	2.9	2.5	2.6	0.8	2.1	3.9	A
TOTAL	1939	1,939	1,969	1,975	1,905	1,940	1,964	1,936	1,928	1,925	1,971	1,945	100.3%	23.4	1905	1975	0.1	1.7	1.5	1.2	1.9	1.0	1.9	1.2	1.1	1.5	1.2	1.3	0.4	1.0	1.9	A
		Highest Movement Delay																									3.6	1.4	2.0	6.1	A	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 28 I-80 EB Ramps/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay							
		1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS		
NB	UT																																	
	LD																																	
	LT																																	
	TH																																	
RT																																		
RD																																		
App.																																		
SB	UT	388	367	382	403	403	398	385	391	391	388	391	390	100.5%	10.7	367	403	0.1	52.2	54.6	52.1	56.1	56.9	50.6	58.9	51.7	48.6	51.4	48.9	7.0	48.6	58.9	D	
	LD																																	
	LT																																	
	TH	211	227	217	193	206	200	223	204	196	214	208	209	99.0%	11.3	193	227	0.2	24.8	27.3	25.5	22.5	25.2	19.7	26.7	21.3	18.3	22.0	17.7	4.3	18.3	27.3	B	
RT																																		
RD																																		
App.	599	594	599	596	609	598	608	595	587	602	599	599	99.9%	6.5	587	609	0.0	42.0	44.8	39.5	45.1	46.2	39.1	46.8	42.2	38.5	41.8	38.7	6.1	38.5	46.8	D		
EB	UT																																	
	LD																																	
	LT	250	258	255	243	265	252	245	264	256	224	292	255	102.2%	17.6	224	292	0.3	55.2	63.3	58.7	57.6	59.5	58.6	54.1	61.7	57.5	58.3	52.6	3.0	54.1	63.3	D	
	TH	353	370	353	368	349	356	333	354	356	363	369	357	101.2%	11.2	333	370	0.2	9.9	11.0	8.7	9.7	9.2	10.2	9.7	10.3	10.4	9.8	8.3	1.0	8.7	11.0	A	
RT																																		
RD																																		
App.	603	628	608	611	614	608	578	618	612	587	661	613	101.6%	22.4	578	661	0.4	28.0	32.0	29.0	31.6	28.8	32.6	27.6	34.6	30.4	31.8	26.1	2.4	27.6	34.6	C		
WB	UT																																	
	LD																																	
	LT																																	
	TH	590	568	591	626	568	570	623	584	619	589	579	592	100.3%	22.9	568	626	0.1	26.6	26.4	25.6	26.1	28.0	27.0	26.6	25.9	28.8	27.9	24.2	2.4	25.6	28.8	C	
RT	98	106	110	93	102	112	86	100	101	102	87	100	101.9%	8.8	86	112	0.2	26.8	19.7	20.1	21.2	21.1	25.2	20.2	18.3	18.7	25.0	16.1	4.1	18.3	26.8	B		
RD																																		
App.	688	674	701	719	670	682	709	684	720	691	666	692	100.5%	19.8	666	720	0.1	25.3	25.6	24.7	25.3	26.5	26.8	24.8	24.9	27.1	26.6	23.0	2.4	24.7	27.1	C		
TOTAL	1890	1,896	1,908	1,926	1,893	1,888	1,895	1,897	1,919	1,880	1,926	1,903	100.7%	16.1	1880	1926	0.3	29.7	31.7	29.9	32.2	32.9	29.2	31.6	31.4	30.2	30.9	29.3	2.1	29.2	32.9	C		
		Highest Movement Delay																									52.6	3.0	54.1	63.3	D			

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection **29** Research Park Dr/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served						Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay																											
		1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS																							
NB	UT																																																						
	LD																																																						
	LT	56	62	65	65	57	59	57	55	55	53	61	59	105.2%	4.2	53	65	0.4	52.0	58.4	59.3	59.6	77.6	65.2	68.2	58.7	67.3	65.2	50.2	7.6	52.0	77.6	D																						
	TH	5	5	3	2	5	4	6	9	9	4	1	5	96.0%	2.7	1	9	0.1	75.9	51.7	43.2	78.6	67.1	39.5	87.1	90.1	67.5	45.9	13.7	17.8	39.5	90.1	B																						
	RT	31	26	26	26	31	30	31	28	30	37	33	30	96.1%	3.5	26	37	0.2	6.3	11.6	6.9	8.7	17.1	7.6	38.4	13.0	10.2	8.1	7.3	2.5	6.3	38.4	A																						
RD																																																							
App.	92	93	94	93	93	93	94	92	94	94	95	94	101.6%	0.8	92	95	0.2	45.4	45.1	50.5	41.1	55.2	40.5	61.0	45.7	55.1	43.0	34.3	6.9	40.5	61.0	C																							
SB	UT																																																						
	LD																																																						
	LT	12	14	19	12	11	12	8	10	12	14	16	13	106.7%	3.1	8	19	0.2	84.6	60.4	83.8	66.4	65.2	96.8	86.7	75.7	54.3	44.6	50.6	23.2	44.6	96.8	D																						
	TH	21	24	17	17	24	17	19	14	24	12	23	19	91.0%	4.4	12	24	0.4	98.3	76.0	71.1	73.2	55.5	65.7	78.6	66.1	100.4	73.5	54.9	14.5	55.5	100.4	D																						
	RT	112	106	105	113	106	114	115	119	109	114	105	111	98.8%	5.0	105	119	0.1	21.3	15.2	16.8	23.2	9.9	28.9	30.9	24.2	13.4	18.7	14.8	7.5	9.9	30.9	B																						
RD																																																							
App.	145	144	141	142	141	143	142	143	145	140	144	143	98.3%	1.6	140	145	0.2	36.7	21.7	29.9	32.3	21.9	33.9	37.2	34.2	19.4	27.8	23.1	7.9	19.4	37.2	C																							
EB	UT	20	33	18	28	15	26	28	18	15	22	15	22	109.0%	6.6	15	33	0.4	95.7	123.1	123.1	122.0	161.5	105.5	137.0	112.7	125.3	102.2	108.5	29.8	95.7	161.5	F																						
	LD																																																						
	LT	143	125	145	128	159	149	143	134	160	158	148	145	101.3%	12.6	125	160	0.2	84.5	127.9	122.2	95.7	127.4	117.1	107.3	105.5	99.2	93.5	97.4	18.2	84.5	127.9	F																						
	TH	422	413	423	426	422	434	385	435	411	419	410	418	99.0%	14.4	385	435	0.2	8.5	12.2	6.9	8.8	6.5	7.9	10.3	8.0	10.1	7.1	7.4	1.6	6.5	12.2	A																						
	RT	156	167	152	188	159	155	165	157	159	153	191	165	105.5%	14.0	152	191	0.7	6.5	7.1	4.5	5.4	2.8	5.6	5.8	5.5	6.0	4.9	4.0	1.1	2.8	7.1	A																						
RD																																																							
App.	741	738	738	770	755	764	721	744	745	752	764	749	101.1%	14.9	721	770	0.3	28.5	35.2	32.3	28.7	36.4	33.4	32.5	32.2	30.3	26.0	27.6	6.2	26.0	36.4	C																							
WB	UT																																																						
	LD																																																						
	LT	52	52	57	39	48	59	48	58	56	49	43	51	97.9%	6.7	39	59	0.2	78.0	89.2	72.3	78.7	135.7	87.8	81.5	75.1	76.9	78.4	68.0	22.9	72.3	135.7	E																						
	TH	500	484	513	518	482	489	516	491	536	506	482	502	100.3%	18.7	482	536	0.1	13.9	12.5	14.4	13.4	29.1	12.0	14.0	15.5	14.6	14.6	11.8	2.2	12.0	29.1	B																						
	RT	18	21	25	22	23	11	16	14	12	19	17	18	100.0%	4.8	11	25	0.0	4.4	5.2	7.9	5.6	16.7	5.0	4.4	12.2	5.5	5.6	3.6	1.1	4.4	16.7	A																						
RD																																																							
App.	570	557	595	579	553	559	580	563	604	574	542	571	100.1%	19.4	542	604	0.0	17.8	20.3	15.6	18.3	42.5	16.6	21.4	18.8	20.5	18.4	16.2	3.2	15.6	42.5	B																							
TOTAL	1548	1,532	1,568	1,584	1,542	1,559	1,537	1,542	1,588	1,560	1,545	1,556	100.5%	19.5	1532	1588	0.2	24.5	27.2	24.8	26.1	29.6	25.6	28.0	26.7	25.4	24.4	23.3	4.0	24.4	29.6	C																							
Highest Movement Delay																												108.5	29.8	95.7	161.5	F																							

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 26 In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

		Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served						Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay								
			1	4	5	7	15	16	17	18	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	7	15	16	17	18	19	20	Avg	St Dev	Min	Max	LOS				
NB	UT	13	12	5	12	15	13	11	11	12	12	13	12	89.2%	2.6	5	15	0.4	33.1	14.4	18.8	14.1	17.0	57.5	31.9	30.1	12.9	35.5	15.5	10.4	12.9	57.5	C				
	LD																																				
	LT																																				
	TH																																				
RT	39	3	11	4	1	3	4	5	4	4	3	4	10.8%	2.6	1	11	7.5	5.3	7.6	8.3	20.4	5.7	5.0	9.1	6.5	6.8	10.0	4.4	2.6	5.0	20.4	A					
RD																																					
App.																																					
App.																																					
SB	UT	5	5	7	3	6	6	3	8	4	7	7	6	112.0%	1.8	3	8	0.3	20.7	22.1	74.1	35.7	37.9	18.4	19.5	8.5	47.4	18.8	12.3	5.5	8.5	74.1	B				
	LD																																				
	LT																																				
	TH																																				
RT	6	8	5	9	5	6	9	4	8	5	5	6	106.7%	1.9	4	9	0.2	23.2	6.5	17.9	8.0	8.9	10.7	7.9	5.9	27.6	9.0	8.6	6.8	5.9	27.6	A					
RD																																					
App.																																					
App.																																					
NE	UT	35	36	35	36	35	36	35	36	36	36	36	36	102.0%	0.5	35	36	0.1	9.5	9.2	7.2	8.6	10.0	7.9	8.4	8.8	8.0	7.6	7.8	1.5	7.2	10.0	A				
	LD																																				
	LT																																				
	TH																																				
RT	35	36	35	36	35	36	35	36	36	36	36	36	102.0%	0.5	35	36	0.1	9.5	9.2	7.2	8.6	10.0	7.9	8.4	8.8	8.0	7.6	7.8	1.5	7.2	10.0	A					
RD																																					
App.																																					
App.																																					
EB	UT	3	2	0	1	1	0	3	1	3	2	5	2	60.0%	1.5	0	5	0.8	37.9	0.0	0.2	100.5	0.0	2.2	3.4	31.7	0.3	49.0	8.7	18.5	0.0	100.5	A				
	LD																																				
	LT																																				
	TH																																				
RT	511	521	525	520	512	533	496	522	500	492	557	518	101.3%	19.3	492	557	0.3	0.5	0.6	0.7	0.5	0.4	0.6	0.7	0.7	0.5	0.5	0.4	0.1	0.4	0.7	A					
RD																																					
App.																																					
App.																																					
WB	UT	35	10	9	13	10	8	15	8	9	13	10	11	30.0%	2.4	8	15	5.1	0.7	0.3	0.2	0.3	0.3	0.4	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.7	A				
	LD																																				
	LT																																				
	TH																																				
RT	27	34	25	37	23	26	26	27	25	31	20	27	101.5%	5.1	20	37	0.1	7.1	3.0	6.8	4.4	4.6	6.2	7.5	3.3	5.6	8.2	3.1	1.5	3.0	8.2	A					
RD																																					
App.																																					
App.																																					
TOTAL		1421	1,392	1,377	1,400	1,332	1,345	1,377	1,333	1,328	1,375	1,393	1,365	96.1%	27.9	1328	1400	1.5	4.6	5.4	4.6	5.0	2.4	4.0	3.0	3.6	4.6	3.7	3.8	1.1	2.4	5.4	A				

Highest Movement Delay

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn	100	0	0	0	1	28	9	22	46	NO
	Through	100	0	0	0	1	28	9	22	46	NO
	Right Turn	400	0	0	0	0	24	5	21	38	NO
	Second Right										
SB	U Turn										
	Second Left										
	Left Turn	400	2	0	1	3	58	18	43	94	NO
	Through	3,700	2	0	1	3	58	18	43	94	NO
	Right Turn	400	0	0	0	0	32	13	23	60	NO
	Second Right										
EB	U Turn										
	Second Left										
	Left Turn	80	0	0	0	0	21	7	11	36	NO
	Through	560	3	1	2	4	174	26	130	205	NO
	Right Turn	560	3	1	2	4	174	26	130	205	NO
	Second Right										
WB	U Turn										
	Second Left										
	Left Turn	100	1	0	0	1	48	18	23	82	NO
	Through	240	4	1	2	5	219	68	122	330	NO
	Right Turn	240	4	1	2	5	220	68	123	331	NO
	Second Right										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left										
	Left Turn	640	66	8	57	78	574	103	444	770	NO
	Through	640	66	8	57	78	574	103	444	770	NO
	Right Turn Second Right	180	0	0	0	0	33	20	21	83	NO
SB	U Turn Second Left										
	Left Turn										
	Through	400	17	1	16	19	129	22	109	163	NO
	Right Turn Second Right	400	1	1	0	3	82	53	21	160	NO
EB	U Turn Second Left										
	Left Turn	100	2	1	1	3	48	12	24	66	NO
	Through	220	2	1	1	3	48	12	24	66	NO
	Right Turn Second Right	220	18	1	15	20	226	32	175	273	MAX
WB	U Turn Second Left										
	Left Turn	220	20	2	17	23	148	27	114	188	NO
	Through	240	20	2	17	23	148	27	114	188	NO
	Right Turn Second Right	240	20	2	17	23	148	27	114	188	NO

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn	20	0	0	0	0	0	0	0	0	NO
	Second Left										
	Left Turn										
	Through										
SB	Right Turn	400	2	0	1	2	56	8	49	72	NO
	Second Right										
	U Turn										
	Second Left										
EB	Left Turn	260	0	0	0	0	64	26	0	93	NO
	Through										
	Right Turn										
	Second Right										
WB	U Turn	600	1	0	1	1	54	9	46	72	NO
	Second Left										
	Left Turn										
	Through										
WB	Right Turn	600	0	0	0	1	54	9	45	72	NO
	Second Right										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn	600	3	1	2	4	80	18	51	115	NO
	Through	600	3	1	2	4	80	18	51	115	NO
	Right Turn	600	3	1	2	4	81	17	52	117	NO
SB	Second Right										
	U Turn										
	Second Left										
	Left Turn	200	6	1	4	7	77	14	52	95	NO
	Through	4,000	16	2	13	17	134	25	107	198	NO
EB	Right Turn	4,000	18	2	15	20	138	25	111	201	NO
	Second Right										
	U Turn										
	Second Left										
	Left Turn	640	3	1	2	4	46	20	23	88	NO
WB	Through	640	18	2	14	22	266	61	162	370	NO
	Right Turn	640	14	2	11	17	257	61	153	361	NO
	Second Right										
	U Turn										
	Second Left										
WB	Left Turn	100	8	2	6	11	208	86	71	301	MAX
	Through	1,540	16	2	13	19	430	154	347	860	NO
	Right Turn	160	0	0	0	0	7	10	0	22	NO
	Second Right										
	Second Left										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn										
	Through										
	Right Turn										
SB	Second Right										
	U Turn										
	Second Left	160	128	10	112	148	652	70	517	753	MAX
	Left Turn										
	Through	1,260	12	2	10	17	205	78	124	335	NO
EB	Right Turn										
	Second Right										
	U Turn										
	Second Left	360	49	4	45	56	175	16	140	196	NO
	Left Turn	1,300	11	1	10	13	149	25	114	183	NO
WB	Through										
	Right Turn										
	Second Right										
	U Turn										
	Second Left	500	51	3	46	56	309	24	274	346	NO
WB	Left Turn	500	38	3	33	42	280	24	244	317	NO
	Through										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

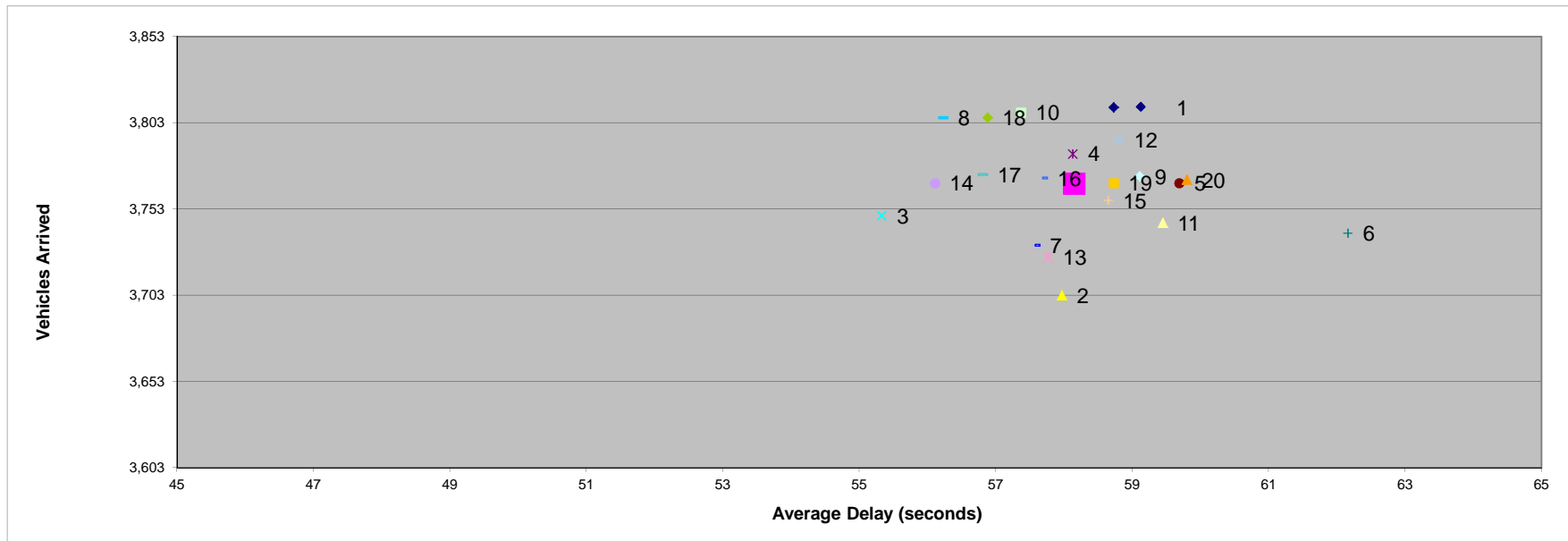
Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn	100	15	1	13	17	76	11	66	93	NO
	Through	620	1	1	0	4	48	19	23	88	NO
	Right Turn	620	1	1	0	4	50	18	24	90	NO
	Second Right										
SB	U Turn										
	Second Left										
	Left Turn	120	4	1	3	5	48	19	23	88	NO
	Through	3,940	12	4	6	17	147	25	98	186	NO
	Right Turn	3,940	12	4	7	18	147	25	98	186	NO
	Second Right										
EB	U Turn	440	96	11	81	111	292	32	246	340	NO
	Second Left										
	Left Turn	440	96	11	81	111	292	32	246	340	NO
	Through	440	96	11	81	111	292	32	246	340	NO
	Right Turn	440	96	12	80	112	295	32	249	343	NO
	Second Right										
WB	U Turn										
	Second Left										
	Left Turn	80	1	2	0	7	118	167	48	586	MAX
	Through	1,120	1	2	0	7	118	167	48	586	NO
	Right Turn	180	1	2	0	7	118	167	48	586	NO
	Second Right										

Vissim Post-Processor
Average Results from 20 Runs
Network Statistics

Davis Nishi EIR
Existing No Project
PM Peak Hour

Performance Measure	Run Number	Run Number																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Average Delay (seconds)	3	58.73	57.97	55.33	58.13	59.69	62.16	57.58	56.23	59.11	57.37	59.45	58.81	57.77	56.11	58.65	57.69	56.81	56.88	58.73	59.80
Total Delay (hours)	4	230,747	222,044	214,172	227,794	232,184	241,184	221,557	221,059	232,132	225,478	232,401	230,782	222,835	216,769	228,223	225,171	222,183	222,983	229,619	231,765
Average Stopped Delay (second)	5	35.62	35.28	33.65	34.88	36.32	37.69	35.11	34.14	36.01	34.72	36.61	35.62	35.35	34.07	36.15	35.14	34.31	35.27	35.72	36.37
Total Stopped Delay (hours)	6	139,961	135,140	130,250	136,700	141,304	146,231	135,099	134,212	141,411	136,468	143,120	139,762	136,337	131,614	140,659	137,147	134,183	138,273	139,652	140,978
Total Distance Traveled (miles)	7	2,020	1,986	1,999	2,037	2,035	2,029	2,004	2,039	2,019	2,050	2,030	2,017	2,000	1,996	2,025	2,029	2,019	2,052	2,025	2,028
Average Speed (mph)	8	15.14	15.29	15.60	15.30	15.15	14.84	15.38	15.51	15.08	15.43	15.13	15.14	15.32	15.50	15.25	15.35	15.41	15.52	15.20	15.15
Average Number of Stops	9	1.75	1.78	1.69	1.76	1.80	1.86	1.75	1.69	1.77	1.69	1.80	1.74	1.72	1.72	1.72	1.71	1.70	1.75	1.79	
Total Number of Stops	10	6,890	6,806	6,531	6,904	6,995	7,228	6,720	6,630	6,950	6,646	7,019	6,820	6,638	6,626	6,702	6,682	6,635	6,651	6,843	6,927
Total Travel Time (hours)	11	480,410	467,675	461,472	479,086	483,461	492,253	469,184	473,091	482,175	478,304	483,135	479,444	469,829	463,747	478,064	475,813	471,503	476,025	479,706	481,862
Vehicles Active	12	117	127	122	134	122	141	116	125	155	121	164	131	132	95	133	132	138	114	142	106
Vehicles Arrived	13	3,812	3,703	3,749	3,785	3,768	3,739	3,732	3,806	3,772	3,809	3,745	3,793	3,725	3,768	3,758	3,771	3,773	3,806	3,768	3,770
Include?		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x



Note: Set the minimum value for each axis scale.

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 20 D St/1st St

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay					LOS	
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max		
NB	UT																																
	LD																																
	LT	33	29	44	43	37	32	24	29	35	30	31	33	101.2%	6.4	24	44	0.1	25.2	22.1	23.0	23.6	22.7	25.5	20.4	25.8	27.4	24.2	18.0	4.4	20.4	27.4	B
	TH	41	46	33	40	41	37	47	47	43	40	40	41	101.0%	4.5	33	47	0.1	20.7	30.3	20.7	22.3	20.6	21.8	28.4	32.1	20.2	19.5	18.8	2.0	19.5	32.1	B
	RD	69	67	64	60	64	76	68	64	62	74	70	67	97.0%	5.2	60	76	0.3	12.3	9.2	9.5	7.9	10.6	17.2	8.7	9.2	10.9	8.7	7.5	1.5	7.9	17.2	A
App.	143	142	141	143	142	145	139	140	140	144	141	142	99.1%	1.9	139	145	0.1	16.6	15.0	14.4	17.4	16.2	19.4	16.9	18.0	15.1	13.2	13.1	1.7	13.2	19.4	B	
SB	UT																																
	LD																																
	LT	92	92	96	95	86	87	94	97	84	95	93	92	99.9%	4.6	84	97	0.0	31.2	25.2	30.9	31.5	24.7	31.5	35.6	42.8	31.2	27.4	24.5	5.3	24.7	42.8	C
	TH	36	29	30	30	41	39	36	34	38	34	38	35	96.9%	4.2	29	41	0.2	24.8	25.4	31.6	28.6	25.8	50.3	35.8	34.2	36.2	25.2	23.2	5.9	24.8	50.3	C
	RD	19	25	16	21	20	22	16	16	24	16	17	19	101.6%	3.6	16	25	0.1	8.0	8.6	8.8	15.7	8.7	17.5	28.3	18.0	7.2	7.0	6.7	4.0	7.0	28.3	A
App.	147	146	142	146	147	148	146	147	146	145	148	146	99.4%	1.7	142	148	0.1	25.8	20.7	25.6	28.3	21.9	34.0	31.9	37.1	28.3	26.3	22.0	4.5	20.7	37.1	C	
EB	UT																																
	LD																																
	LT	8	7	7	7	7	8	7	7	8	8	11	8	96.3%	1.3	7	11	0.1	58.7	47.2	78.4	44.5	59.6	93.1	100.0	65.6	109.5	45.5	46.9	36.7	44.5	109.5	D
	TH	380	370	381	390	378	397	379	389	393	384	386	385	101.2%	8.0	370	397	0.2	39.5	34.8	29.4	51.2	40.0	62.8	54.5	41.4	51.4	36.5	33.4	13.8	29.4	62.8	C
	RD	61	71	68	52	68	59	64	62	54	51	59	61	99.7%	7.0	51	71	0.0	37.4	34.2	23.3	29.2	27.3	58.1	46.4	38.4	46.4	40.3	29.0	14.1	23.3	58.1	C
App.	449	448	456	449	453	464	450	458	455	443	456	453	100.9%	5.9	443	464	0.2	39.7	34.4	28.4	48.7	38.4	62.6	54.4	39.6	51.2	36.7	33.0	14.0	28.4	62.6	C	
WB	UT																																
	LD																																
	LT	75	62	76	83	73	63	79	75	78	76	67	73	97.6%	7.0	62	83	0.2	22.5	27.9	27.2	32.2	28.9	25.1	24.1	27.7	23.2	26.1	22.8	3.5	22.5	32.2	C
	TH	304	279	286	302	310	309	272	285	316	312	303	297	97.8%	15.5	272	316	0.4	9.2	9.7	8.1	11.6	10.7	13.1	10.8	11.2	8.7	7.9	8.8	2.1	7.9	13.1	A
	RD	71	94	75	98	98	95	84	99	81	76	86	89	124.8%	9.3	75	99	2.0	11.4	9.9	7.2	10.5	8.8	8.3	11.3	10.3	8.4	8.4	7.7	2.3	7.2	11.4	A
App.	450	435	437	483	481	467	435	459	475	464	456	459	102.0%	18.4	435	483	0.4	10.8	11.6	11.6	12.7	12.7	14.2	12.5	13.0	11.1	10.9	10.9	1.9	10.8	14.2	B	
TOTAL	1,189	1,171	1,176	1,221	1,223	1,224	1,170	1,204	1,216	1,196	1,201	1,200	100.9%	21.5	1170	1224	0.3	23.1	21.3	18.9	27.3	22.8	35.1	31.2	26.8	26.9	21.2	21.1	6.0	18.9	35.1	C	
		Highest Movement Delay																										46.9	36.7	44.5	109.5	D	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 21 E St/1st St

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay						
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS	
NB	UT																																
	LD																																
	LT	381	377	370	402	398	404	378	394	408	393	378	390	102.4%	13.4	370	408	0.5	26.6	30.8	31.5	32.0	30.8	27.2	26.2	31.3	31.4	30.2	25.3	3.5	26.2	32.0	C
	TH	121	131	133	131	119	132	124	106	129	112	135	125	103.5%	9.8	106	135	0.4	26.5	33.3	29.8	26.9	35.1	31.7	27.3	29.3	28.0	30.9	27.8	3.4	26.5	35.1	C
	RT	347	338	335	336	352	322	347	336	335	364	299	336	96.9%	17.4	299	364	0.6	6.0	12.4	8.8	7.7	11.1	6.7	7.3	8.3	7.4	7.7	6.5	3.0	6.0	12.4	A
RD																																	
App.	849	846	838	869	869	858	849	836	872	869	812	852	100.3%	19.4	812	872	0.1	17.4	24.0	22.4	21.2	24.7	19.0	19.1	22.9	20.2	21.6	18.4	3.4	17.4	24.7	B	
SB	UT																																
	LD																																
	LT	6	9	5	4	2	9	6	7	10	3	5	6	100.0%	2.7	2	10	0.0	53.9	60.8	51.8	45.1	49.2	36.9	42.0	47.6	47.5	72.2	15.2	17.1	36.9	72.2	B
	TH	165	167	167	151	153	161	165	166	157	168	175	163	98.8%	7.4	151	175	0.2	42.1	36.0	41.8	36.7	37.5	43.5	38.4	34.9	38.9	40.7	33.1	3.3	34.9	43.5	C
	RT	31	27	28	45	42	30	27	27	29	32	27	31	101.3%	6.6	27	45	0.1	32.3	23.0	17.9	19.1	27.7	26.9	20.9	17.0	22.0	31.6	17.2	6.7	17.0	32.3	B
RD																																	
App.	202	203	200	200	197	200	198	200	196	203	207	200	99.2%	3.2	196	207	0.1	41.0	33.9	37.6	32.2	35.4	39.5	34.3	33.2	35.4	38.6	30.1	3.8	32.2	41.0	C	
EB	UT																																
	LD																																
	LT	15	14	19	15	8	19	15	15	14	21	17	16	104.7%	3.6	8	21	0.2	59.0	70.7	84.7	58.9	85.3	54.6	71.7	63.3	68.9	105.6	59.5	15.9	54.6	105.6	E
	TH	31	32	28	27	27	33	40	35	34	38	37	33	106.8%	4.6	27	40	0.4	57.9	72.9	56.0	79.7	69.8	76.4	66.5	59.5	63.7	75.9	57.0	14.1	56.0	79.7	E
	RT	495	486	497	499	498	510	492	505	488	492	491	496	100.2%	7.5	486	510	0.0	14.8	17.9	14.8	19.9	17.1	17.4	18.8	17.3	16.6	14.8	15.8	2.4	14.8	19.9	B
RD																																	
App.	541	532	544	541	533	562	547	555	536	551	545	545	100.7%	9.7	532	562	0.2	17.8	20.2	18.6	22.6	20.1	20.9	21.9	21.6	22.8	21.3	19.7	2.1	17.8	22.8	B	
WB	UT																																
	LD																																
	LT	191	192	189	193	180	186	195	183	195	188	193	189	99.2%	5.1	180	195	0.1	56.0	44.3	52.7	59.2	44.7	45.5	43.4	46.2	48.3	53.2	42.7	9.3	43.4	59.2	D
	TH	38	31	41	34	43	35	31	42	37	40	48	38	100.5%	5.6	31	48	0.0	44.4	48.4	51.6	38.5	34.9	39.2	37.5	45.5	49.1	46.1	38.5	6.5	34.9	51.6	D
	RT	5	5	9	4	6	6	5	3	2	6	8	5	108.0%	2.1	2	9	0.2	24.3	26.7	34.9	29.6	28.1	13.0	5.8	69.8	24.7	20.7	15.3	20.7	5.8	69.8	B
RD																																	
App.	234	228	239	231	229	227	231	228	234	234	249	233	99.6%	6.7	227	249	0.1	51.8	42.9	47.0	51.8	40.5	42.5	41.0	45.7	42.6	51.3	40.9	7.2	40.5	51.8	D	
TOTAL	1826	1,809	1,821	1,841	1,828	1,847	1,825	1,819	1,838	1,857	1,813	1,830	100.2%	15.5	1809	1857	0.1	23.4	25.8	25.3	25.7	25.4	23.1	22.1	24.9	24.8	26.0	23.0	2.0	22.1	26.0	C	
		Highest Movement Delay																									59.5	15.9	54.6	105.6	E		

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 22 F St/1st St

Side-street Stop

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay						
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS	
NB	UT																																
	LD																																
	LT	5	4	5	7	3	3	4	5	6	4	6	5	94.0%	1.3	3	7	0.1	9.7	14.4	24.1	7.1	9.5	13.2	13.7	6.4	6.2	15.4	5.9	3.6	6.2	24.1	A
	TH	3	3	3	1	5	5	4	3	3	4	2	3	110.0%	1.3	1	5	0.2	12.7	18.5	7.4	5.7	11.8	16.1	7.6	10.8	12.6	13.1	5.5	5.1	5.7	18.5	A
RT																																	
RD																																	
App.	8	7	8	8	8	8	8	8	9	8	8	8	100.0%	0.5	7	9	0.0	11.2	11.6	17.5	6.4	8.3	11.1	9.9	7.7	7.8	14.2	6.6	2.1	6.4	17.5	A	
SB	UT																																
	LD																																
	LT	13	16	9	17	15	12	11	11	13	12	11	13	97.7%	2.5	9	17	0.1	14.6	17.6	16.2	14.0	14.3	23.4	10.7	16.8	22.0	8.4	9.6	5.5	8.4	23.4	A
	TH	2	3	0	1	0	2	6	1	3	0	1	2	85.0%	1.9	0	6	0.2	28.3	0.0	12.3	0.0	11.5	20.6	17.5	15.3	0.0	15.0	6.4	8.4	0.0	28.3	A
RT	120	113	125	116	121	118	118	120	119	121	125	120	99.7%	3.7	113	125	0.0	13.3	8.2	10.0	21.5	10.1	9.0	9.4	11.9	15.2	9.3	9.3	4.8	8.2	21.5	A	
RD																																	
App.	135	132	134	134	136	132	135	132	135	133	137	134	99.3%	1.8	132	137	0.1	13.2	8.0	9.8	20.8	10.6	10.5	9.3	12.4	15.7	9.3	9.5	4.4	8.0	20.8	A	
EB	UT																																
	LD																																
	LT	171	172	149	156	179	163	187	182	183	184	155	171	100.0%	14.1	149	187	0.0	1.4	0.8	0.9	1.4	1.3	1.7	1.2	1.1	1.1	1.2	0.9	0.3	0.8	1.7	A
	TH	206	202	213	207	202	195	201	193	188	215	177	199	96.7%	11.5	177	215	0.5	1.2	1.5	1.5	0.7	1.3	1.3	0.7	0.7	1.4	1.2	0.7	0.4	0.7	1.5	A
RT	7	7	7	3	2	5	5	4	8	8	9	6	82.9%	2.3	2	9	0.5	0.4	0.4	2.6	0.5	5.7	0.5	0.4	0.4	2.1	0.9	0.2	0.2	0.4	5.7	A	
RD																																	
App.	384	381	369	366	383	363	393	379	379	407	341	376	97.9%	17.9	341	407	0.4	1.0	1.1	1.2	1.0	1.3	1.5	0.9	0.9	1.3	1.1	0.8	0.3	0.9	1.5	A	
WB	UT																																
	LD																																
	LT	2	0	0	0	0	0	0	0	0	0	0	0	0.0%	0.0	0	0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	A
	TH	109	110	111	108	107	107	108	106	112	109	114	109	100.2%	2.5	106	114	0.0	10.5	11.0	10.6	13.4	10.3	10.5	18.3	11.8	14.1	11.4	10.4	1.4	10.3	18.3	B
RT	11	13	11	14	14	15	12	15	10	13	9	13	114.5%	2.1	9	15	0.5	8.9	22.5	7.8	23.5	7.7	10.7	14.5	14.4	15.2	19.0	8.6	6.9	7.7	23.5	A	
RD																																	
App.	122	123	122	122	121	122	120	121	122	122	123	122	99.8%	0.9	120	123	0.0	9.5	12.0	9.8	13.2	9.9	10.4	17.5	11.7	13.6	10.4	10.1	1.4	9.5	17.5	B	
TOTAL	649	643	633	630	648	625	656	640	645	670	609	640	98.6%	17.0	609	670	0.4	5.1	4.4	4.8	8.4	4.8	4.8	5.8	4.9	6.2	4.9	4.5	1.4	4.4	8.4	A	
		Highest Movement Delay																										10.4	1.4	10.3	18.3	B	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 25 Olive Dr/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay						
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS	
NB	UT																																
	LD																																
	LT	26	18	33	29	24	29	28	25	25	24	26	26	100.4%	4.0	18	33	0.0	29.4	25.4	31.4	24.7	38.8	31.0	40.9	27.5	44.9	22.5	21.1	9.2	22.5	44.9	C
	TH	8	10	12	8	11	8	13	10	4	10	11	10	121.3%	2.5	4	13	0.6	50.0	37.1	35.3	33.6	38.2	40.3	28.6	50.6	27.7	38.9	24.1	17.6	27.7	50.6	C
	RD	65	73	56	64	67	65	63	63	68	65	65	65	99.8%	4.3	56	73	0.0	20.7	15.4	18.7	16.6	27.3	15.0	20.1	16.8	21.7	14.8	14.9	5.2	14.8	27.3	B
App.	99	101	101	101	102	102	104	98	97	99	102	101	101.7%	2.1	97	104	0.2	22.7	18.5	18.9	18.5	29.1	21.6	19.9	19.2	26.1	17.6	17.2	5.4	17.6	29.1	B	
SB	UT																																
	LD																																
	LT	127	129	139	124	126	130	127	123	115	122	145	128	100.8%	8.6	115	145	0.1	31.3	40.1	39.9	32.9	37.3	28.0	31.9	30.1	29.3	27.9	26.9	6.2	27.9	40.1	C
	TH	13	19	10	9	14	11	14	10	13	17	10	13	97.7%	3.3	9	19	0.1	44.5	38.5	62.6	33.8	30.7	23.6	40.0	33.0	54.0	28.0	27.8	13.5	23.6	62.6	C
	RD	170	163	161	175	170	164	166	174	179	169	153	167	98.5%	7.6	153	179	0.2	27.1	26.6	19.7	19.7	19.8	16.9	18.3	19.7	17.7	24.1	16.7	4.4	16.9	27.1	B
App.	310	311	310	308	310	305	307	307	307	308	308	308	99.4%	1.8	305	311	0.1	27.3	29.3	25.3	24.5	25.8	20.3	23.7	20.8	21.4	20.8	21.5	3.9	20.3	29.3	C	
EB	UT																																
	LD																																
	LT	74	72	80	75	67	86	66	67	73	82	66	73	99.2%	7.2	66	86	0.1	35.9	31.7	35.2	32.6	33.7	37.3	31.8	30.5	38.4	40.2	28.3	4.8	30.5	40.2	C
	TH	749	748	731	743	734	741	764	765	739	736	776	748	99.8%	15.3	731	776	0.0	19.4	14.4	13.2	16.7	13.7	16.3	13.2	16.4	15.8	15.7	13.9	2.1	13.2	19.4	B
	RD	28	31	35	27	32	30	25	26	28	26	27	29	102.5%	3.2	25	35	0.1	25.5	18.2	18.1	10.5	15.2	15.4	16.5	13.5	20.3	15.1	12.1	3.8	10.5	25.5	B
App.	851	851	846	845	833	857	855	858	840	844	869	850	99.9%	10.4	833	869	0.0	21.0	15.5	15.5	18.2	15.2	17.5	13.6	17.4	17.5	17.0	15.2	2.0	13.6	21.0	B	
WB	UT																																
	LD																																
	LT	29	37	35	31	29	36	31	26	34	33	25	32	109.3%	4.1	25	37	0.5	43.1	38.3	44.0	40.3	46.9	46.4	38.5	45.8	41.6	43.2	34.0	3.1	38.3	46.9	C
	TH	653	666	650	664	669	660	648	633	670	676	628	656	100.5%	16.2	628	676	0.1	36.6	66.3	33.9	29.9	25.1	38.5	25.1	38.2	29.2	26.1	29.8	14.1	25.1	66.3	C
	RD	69	67	73	82	67	67	74	52	59	82	69	69	100.3%	9.3	52	82	0.0	2.4	2.0	1.9	2.3	1.9	1.3	1.4	2.2	1.3	1.5	1.3	0.4	1.3	2.4	A
App.	751	770	758	777	765	763	753	711	763	791	722	757	100.8%	24.1	711	791	0.2	35.0	60.1	31.4	28.9	23.3	34.2	23.7	35.1	28.1	24.4	27.4	12.4	23.3	60.1	C	
TOTAL	2011	2,033	2,015	2,031	2,010	2,027	2,019	1,974	2,007	2,042	2,001	2,016	100.2%	19.5	1974	2042	0.1	26.1	33.7	22.0	22.7	19.4	23.4	19.2	21.3	20.9	20.0	20.7	4.1	19.2	33.7	C	
		Highest Movement Delay																									34.0	3.1	38.3	46.9	C		

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 27 I-80 WB Ramps/Richards Blvd

Uncontrolled

	Demand (vph)	Total Volume Served (vph) by Run											Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay				
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS
NB UT LD LT TH RT RD	69	71	68	67	68	69	69	70	69	69	67	69	99.6%	1.3	67	71	0.0	0.6	0.4	1.0	0.6	1.7	0.8	0.7	0.8	0.9	0.8	0.6	0.2	0.4	1.7	A
	App.	69	71	68	67	68	69	69	70	69	69	67	69	99.6%	1.3	67	71	0.0	0.6	0.4	1.0	0.6	1.7	0.8	0.7	0.8	0.9	0.8	0.6	0.2	0.4	1.7
SB UT LD LT TH RT RD	322	321	322	323	321	318	322	317	324	320	321	321	99.7%	2.1	317	324	0.1	1.2	4.8	1.5	1.1	0.8	1.5	1.0	1.5	0.8	1.3	1.3	1.2	0.8	4.8	A
	App.	322	321	322	323	321	318	322	317	324	320	321	321	99.7%	2.1	317	324	0.1	1.2	4.8	1.5	1.1	0.8	1.5	1.0	1.5	0.8	1.3	1.3	1.2	0.8	4.8
EB UT LD LT TH RT RD	657	667	652	652	647	674	662	677	648	635	704	662	100.7%	19.7	635	704	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	A
	303	315	303	306	300	281	302	301	294	305	298	301	99.2%	8.8	281	315	0.1	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.6	0.3	0.2	0.1	0.2	0.6	A
App.	960	982	955	958	947	955	964	978	942	940	1,002	962	100.2%	19.7	940	1002	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1	0.1	0.0	0.1	0.3	A
WB UT LD LT TH RT RD	505	522	518	520	508	526	497	476	522	538	479	511	101.1%	20.5	476	538	0.2	7.4	31.8	5.9	4.4	3.8	6.9	3.3	7.4	5.1	11.2	6.9	8.9	3.3	31.8	A
	462	438	464	465	473	455	442	456	471	435	471	457	98.9%	14.3	435	473	0.2	1.7	1.6	1.8	2.1	1.6	1.8	1.8	1.7	1.7	2.3	1.5	0.3	1.6	2.3	A
App.	967	960	982	985	981	981	939	932	993	973	950	968	100.1%	21.1	932	993	0.0	4.5	17.1	4.0	2.9	2.7	4.3	2.3	4.7	3.2	6.7	4.3	4.5	2.3	17.1	A
TOTAL	2318	2,334	2,327	2,333	2,317	2,323	2,294	2,297	2,328	2,302	2,340	2,320	100.1%	16.4	2294	2340	0.0	2.1	7.8	1.9	1.4	1.3	2.1	1.2	2.3	1.6	2.9	2.0	2.1	1.2	7.8	A
		Highest Movement Delay																									6.9	8.9	3.3	31.8	A	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 28 I-80 EB Ramps/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay							
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS		
NB																																		
	App.																																	
SB	UT	398	374	394	416	371	393	406	416	396	401	401	397	99.7%	15.1	371	416	0.1	63.4	69.4	49.1	73.1	62.0	49.2	60.4	56.7	46.2	47.7	54.2	9.2	46.2	73.1	D	
	LD	241	267	240	224	260	248	232	221	250	247	236	243	100.6%	14.8	221	267	0.1	31.5	37.6	16.3	49.6	26.5	22.0	25.3	22.4	24.5	18.9	23.3	11.2	16.3	49.6	C	
	App.	639	641	634	640	631	641	638	637	646	648	637	639	100.0%	5.1	631	648	0.0	52.4	58.2	37.4	64.4	48.5	38.6	48.4	42.7	36.1	36.7	43.6	9.3	36.1	64.4	D	
EB	UT	325	344	337	306	296	321	321	332	324	310	352	324	99.8%	17.4	296	352	0.0	54.9	49.8	59.2	51.7	58.9	53.3	60.7	55.8	56.7	60.7	54.2	4.4	49.8	60.7	D	
	LD	401	401	387	407	421	417	409	416	393	397	422	407	101.5%	12.2	387	422	0.3	10.2	12.5	13.2	10.4	12.7	13.6	12.6	12.4	12.1	13.1	9.9	1.9	10.2	13.6	A	
	App.	726	745	724	713	717	738	730	748	717	707	774	731	100.7%	20.3	707	774	0.2	31.0	30.2	33.5	27.7	31.6	32.1	35.5	31.2	31.5	36.4	29.6	2.9	27.7	36.4	C	
WB	UT	726	692	743	751	719	738	693	718	751	737	700	724	99.8%	23.1	692	751	0.1	19.5	20.3	17.1	17.7	18.6	19.7	20.8	18.3	23.7	18.7	18.5	2.8	17.1	23.7	B	
	LD	165	176	172	140	174	162	194	169	164	176	151	168	101.7%	14.8	140	194	0.2	19.2	16.2	13.1	16.5	13.7	12.0	15.1	17.1	18.3	12.9	13.2	3.4	12.0	19.2	B	
	App.	891	868	915	891	893	900	887	887	915	913	851	892	100.1%	20.7	851	915	0.0	19.3	19.5	16.5	16.6	17.5	18.0	19.4	17.4	22.4	17.1	17.5	2.7	16.5	22.4	B	
TOTAL		2256	2,254	2,273	2,244	2,241	2,279	2,255	2,272	2,278	2,268	2,262	2,263	100.3%	13.6	2241	2279	0.1	31.2	31.7	26.7	34.4	29.8	27.4	33.1	29.2	27.8	29.3	29.1	3.0	26.7	34.4	C	
																			Highest Movement Delay										54.2	9.2	46.2	73.1	D	

Vissim Post-Processor
Average Results from 10 Runs
Intersection Volume and Delay

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 29 Research Park Dr/Richards Blvd

Signal

	Demand (vph)	Total Volume Served (vph) by Run										Total Volume Served					Peak Total Delay (sec/veh) by Run										Peak Interval Total Delay						
		1	4	5	9	11	12	15	16	19	20	Avg	%	St Dev	Min	Max	GEH	1	4	5	9	11	12	15	16	19	20	Avg	St Dev	Min	Max	LOS	
NB	UT																																
	LD																																
	LT	155	158	152	151	149	153	145	151	145	150	139	149	96.3%	5.2	139	158	0.5	54.6	58.6	63.7	58.1	56.7	58.6	56.5	65.4	58.0	67.8	53.9	4.1	54.6	67.8	D
	TH	19	21	17	21	19	18	21	15	24	18	23	20	103.7%	2.8	15	24	0.2	61.4	78.4	49.9	45.0	48.9	65.7	69.3	57.4	64.6	46.4	38.5	17.7	45.0	78.4	D
	RT RD	43	35	50	38	41	48	47	46	41	45	53	44	103.3%	5.6	35	53	0.2	19.1	22.6	24.6	16.5	14.4	15.2	27.6	17.3	18.4	46.2	16.9	10.9	14.4	46.2	B
App.	217	214	219	210	209	219	213	212	210	213	215	213	98.3%	3.5	209	219	0.2	47.7	46.5	53.2	50.9	49.0	45.8	46.7	53.0	51.2	54.8	44.2	5.4	45.8	54.8	D	
SB	UT																																
	LD																																
	LT	44	46	48	47	46	46	32	45	35	37	51	43	98.4%	6.3	32	51	0.1	62.2	67.7	65.1	71.9	54.3	73.4	71.2	65.7	51.3	64.8	49.4	15.3	51.3	73.4	D
	TH	7	13	7	8	7	10	9	8	10	2	4	8	111.4%	3.1	2	13	0.3	64.8	43.4	71.5	65.8	80.5	97.3	82.5	55.5	70.5	96.2	42.4	29.6	43.4	97.3	D
	RT RD	107	101	101	102	103	99	114	104	113	115	103	106	98.6%	6.0	99	115	0.1	16.8	10.2	14.1	18.6	12.5	16.0	9.0	10.7	13.2	17.9	9.5	3.6	9.0	18.6	A
App.	158	160	156	157	156	155	155	157	158	154	158	157	99.1%	1.8	154	160	0.1	34.9	27.2	31.3	30.2	34.8	29.2	24.1	25.4	22.0	29.4	22.1	7.2	22.0	34.9	C	
EB	UT																																
	LD																																
	LT	40	45	43	33	36	32	35	29	37	29	26	35	86.3%	6.1	26	45	0.9	63.0	78.1	53.2	60.9	48.1	55.1	85.9	67.0	112.5	70.9	58.5	28.2	48.1	112.5	E
	TH	117	116	107	102	109	122	124	131	123	133	120	119	101.5%	10.2	102	133	0.2	54.5	66.6	50.9	66.2	49.8	48.2	56.2	73.0	70.1	60.9	53.0	16.6	48.2	73.0	D
	RT RD	602	585	581	643	609	621	610	610	588	596	629	607	100.9%	20.1	581	643	0.2	22.1	18.5	21.5	20.1	22.8	20.6	17.8	20.5	17.4	21.3	18.4	3.1	17.4	22.8	B
App.	46	33	49	45	37	34	47	52	38	43	47	43	92.4%	6.6	33	52	0.5	23.0	16.1	23.1	15.0	16.5	26.7	21.9	25.2	13.5	18.9	16.4	6.0	13.5	26.7	B	
App.	805	779	780	823	791	809	816	822	786	801	822	803	99.7%	17.9	779	823	0.1	29.9	26.6	24.3	27.6	26.4	26.8	26.8	26.8	25.3	27.1	24.8	3.4	24.3	29.9	C	
WB	UT																																
	LD																																
	LT	34	37	30	32	29	34	39	35	35	33	31	34	98.5%	3.1	29	39	0.1	77.1	82.3	72.7	67.0	65.7	69.9	77.7	103.0	71.4	69.5	63.9	7.3	65.7	103.0	E
	TH	595	572	629	605	598	613	594	585	607	601	576	598	100.5%	17.2	572	629	0.1	28.4	36.8	33.0	31.6	32.2	28.8	40.7	29.6	30.6	30.2	26.0	6.6	28.4	40.7	C
	RT RD	38	44	44	35	35	31	41	41	33	35	31	37	97.4%	5.1	31	44	0.2	8.9	15.3	18.0	9.8	7.5	18.4	15.6	12.7	13.8	10.3	8.1	5.1	7.5	18.4	A
App.	667	653	703	672	662	678	674	661	675	669	638	669	100.2%	17.1	638	703	0.1	30.2	36.7	32.5	31.7	32.1	30.0	39.9	30.2	31.6	30.5	26.8	6.3	30.0	39.9	C	
TOTAL	1847	1,806	1,858	1,862	1,818	1,861	1,858	1,852	1,829	1,837	1,833	1,841	99.7%	19.8	1806	1862	0.1	32.8	30.6	28.2	28.2	28.9	29.0	33.6	29.7	29.2	29.8	27.7	4.0	28.2	33.6	C	
		Highest Movement Delay																									63.9	7.3	65.7	103.0	E		

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left										
	Left Turn	100	6	1	5	7	90	19	67	130	NO
	Through	100	6	1	5	7	90	19	67	130	NO
	Right Turn	400	1	1	1	3	63	31	41	145	NO
	Second Right										
SB	U Turn Second Left										
	Left Turn	400	14	3	10	18	143	30	112	204	NO
	Through	3,700	14	3	10	18	143	30	112	204	NO
	Right Turn	400	0	0	0	1	44	31	24	114	NO
	Second Right										
EB	U Turn Second Left										
	Left Turn	80	1	0	1	2	56	64	22	212	NO
	Through	560	53	12	31	77	484	116	287	630	NO
	Right Turn	560	53	12	31	77	484	116	287	630	NO
	Second Right										
WB	U Turn Second Left										
	Left Turn	100	8	1	6	10	103	15	87	130	MAX
	Through	240	14	3	10	18	295	55	190	351	MAX
	Right Turn	240	14	3	11	19	296	55	192	353	MAX
	Second Right										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn	640	111	22	78	141	746	81	515	773	MAX
	Through	640	111	22	78	141	746	81	515	773	MAX
	Right Turn	180	0	0	0	0	55	21	22	92	NO
SB	Second Right										
	U Turn										
	Second Left										
	Left Turn										
	Through	400	35	4	30	44	221	37	179	307	NO
EB	Right Turn	400	2	1	1	4	131	59	27	223	NO
	Second Right										
	U Turn										
	Second Left										
	Left Turn	100	18	4	13	24	234	93	65	324	MAX
WB	Through	220	18	4	13	24	234	93	65	324	MAX
	Right Turn	220	51	4	44	57	310	15	280	324	MAX
	Second Right										
	U Turn										
	Second Left										
WB	Left Turn	220	47	3	44	52	259	29	205	300	MAX
	Through	240	47	3	44	52	259	29	205	300	MAX
	Right Turn	240	47	3	44	52	259	29	205	300	MAX
	Second Right										
	U Turn										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn	20	0	0	0	0	23	1	22	25	MAX
	Second Left										
	Left Turn										
	Through										
SB	Right Turn	400	4	1	2	7	91	32	66	166	NO
	Second Right										
	Right Turn										
	Second Right										
EB	U Turn	260	2	0	1	2	87	5	74	93	NO
	Second Left										
	Left Turn										
	Through										
WB	Right Turn	600	4	1	3	5	85	19	64	127	NO
	Second Right										
	Right Turn										
	Second Right										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left										
	Left Turn	600	7	1	6	10	118	22	93	164	NO
	Through	600	7	1	6	10	118	22	93	164	NO
	Right Turn	600	7	1	6	10	120	22	94	166	NO
	Second Right										
SB	U Turn Second Left										
	Left Turn	200	17	3	14	25	146	14	120	164	NO
	Through	4,000	13	4	8	21	137	32	95	200	NO
	Right Turn	4,000	15	3	11	23	140	32	99	204	NO
	Second Right										
EB	U Turn Second Left										
	Left Turn	640	9	2	7	12	134	84	68	333	NO
	Through	640	60	11	47	81	628	87	474	742	NO
	Right Turn	640	55	11	42	76	618	87	464	732	NO
	Second Right										
WB	U Turn Second Left										
	Left Turn	100	7	1	5	8	140	85	47	286	MAX
	Through	1,540	37	9	26	56	588	89	479	734	NO
	Right Turn	160	0	0	0	0	39	18	21	68	NO
	Second Right										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn										
	Through										
	Right Turn										
SB	Second Right										
	U Turn										
	Second Left	160	150	23	125	193	756	133	561	1,055	MAX
	Left Turn										
	Through	1,260	16	4	11	24	300	206	116	763	NO
EB	Right Turn										
	Second Right										
	U Turn										
	Second Left	360	59	4	53	67	215	30	182	270	NO
	Left Turn	1,300	16	1	14	17	203	37	160	296	NO
WB	Through										
	Right Turn										
	Second Right										
	U Turn										
	Second Left	500	43	5	37	52	328	40	253	382	NO
WB	Left Turn	500	28	5	23	36	298	40	224	352	NO
	Through										

Vissim Post-Processor
Average Results from 10 Runs
Queue Length

Davis Nishi EIR
Existing No Project
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Storage (ft)	Average Queue (ft)				Maximum Queue (ft)				Exceeds Storage?
			Average	Std. Dev.	Minimum	Maximum	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn										
	Second Left										
	Left Turn	100	34	2	31	37	135	25	107	201	MAX
	Through	620	6	1	4	8	88	16	66	114	NO
	Right Turn	620	5	2	3	8	89	16	67	115	NO
SB	Second Right										
	U Turn										
	Second Left										
	Left Turn	120	12	2	9	15	96	19	69	139	NO
	Through	3,940	4	1	2	6	110	21	87	158	NO
EB	Right Turn	3,940	5	1	3	7	110	21	88	158	NO
	Second Right										
	U Turn	440	92	5	85	100	531	19	483	546	MAX
	Second Left										
	Left Turn	440	92	5	85	100	531	19	483	546	MAX
WB	Through	440	92	5	85	100	531	19	483	546	MAX
	Right Turn	440	90	5	82	98	534	19	486	549	MAX
	Second Right										
	U Turn										
	Second Left										
WB	Left Turn	80	3	1	1	6	261	85	156	381	MAX
	Through	1,120	3	1	1	6	261	85	156	381	NO
	Right Turn	180	3	1	1	6	261	85	156	381	MAX
	Second Right										

**A.2 – VISSIM CALCULATION SHEETS – EXISTING PLUS PROJECT
ACCESS SCENARIO 1**



Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	5	5	104.0%	1.7	3	8	0.1	6.6	6.7	4.4	23.8	A
	Through	2	2	95.0%	1.0	1	4	0.1	9.6	14.9	2.4	33.1	A
	Right Turn	18	17	95.6%	2.3	13	20	0.2	5.1	2.1	4.6	10.8	A
	Second Right Subtotal	25	24	97.2%	0.5	24	25	0.1	6.9	4.2	5.0	14.9	A
SB	U Turn Second Left												
	Left Turn	27	30	109.3%	4.6	20	35	0.5	12.1	4.3	8.7	21.8	B
	Through	12	12	95.8%	2.3	8	15	0.1	10.8	4.8	9.0	19.0	B
	Right Turn	13	12	93.8%	3.6	6	18	0.2	8.5	5.2	9.1	21.8	A
	Second Right Subtotal	52	53	102.3%	1.3	51	55	0.2	11.1	3.8	9.7	17.8	B
EB	U Turn Second Left												
	Left Turn	5	5	106.0%	1.8	3	8	0.1	12.7	11.4	6.5	41.0	B
	Through	90	95	105.0%	5.4	85	102	0.5	5.8	2.7	5.5	16.9	A
	Right Turn	19	19	99.5%	3.8	13	24	0.0	6.5	9.3	1.9	29.8	A
	Second Right Subtotal	114	119	104.1%	1.3	117	121	0.4	6.1	3.1	6.5	15.9	A
WB	U Turn Second Left												
	Left Turn	21	18	83.8%	3.5	13	25	0.8	8.7	5.2	8.0	22.7	A
	Through	481	405	84.2%	26.4	370	447	3.6	5.4	1.3	4.4	7.3	A
	Right Turn	53	44	83.4%	6.1	33	52	1.3	3.6	1.1	3.5	6.6	A
	Second Right Subtotal	555	467	84.1%	31.7	423	516	3.9	5.3	1.2	4.2	7.0	A
Total		746	663	88.9%	32.3	617	714	3.1	6.0	1.2	4.9	7.8	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	456	367	80.4%	28.0	333	402	4.4	21.3	4.8	19.6	30.0	C
	Through	65	51	77.7%	6.3	42	60	1.9	18.2	6.3	26.1	31.5	B
	Right Turn	249	199	79.8%	20.9	156	221	3.4	2.9	1.1	2.9	11.3	A
	Second Right												
	Subtotal	770	616	79.9%	43.3	537	669	5.9	15.0	4.0	13.9	24.8	B
SB	U Turn Second Left												
	Left Turn	2	2	105.0%	1.4	0	4	0.1	7.5	18.8	0.0	80.8	A
	Through	10	8	84.0%	1.9	5	11	0.5	29.7	51.3	19.2	171.1	C
	Right Turn	2	2	80.0%	1.0	1	4	0.3	1.2	1.8	0.4	16.8	A
	Second Right												
	Subtotal	14	12	86.4%	0.3	12	13	0.5	22.5	37.8	17.7	128.3	C
EB	U Turn Second Left												
	Left Turn	2	1	30.0%	0.7	0	2	1.2	8.0	18.7	0.0	59.9	A
	Through	28	29	103.9%	4.7	21	36	0.2	37.9	9.0	41.7	52.9	D
	Right Turn	105	112	106.4%	5.9	102	118	0.6	19.5	10.1	14.5	46.0	B
	Second Right												
	Subtotal	135	141	104.7%	7.5	126	150	0.5	23.0	7.3	15.9	40.1	C
WB	U Turn Second Left												
	Left Turn	322	317	98.6%	13.0	293	334	0.3	49.7	21.5	46.9	98.5	D
	Through	97	100	103.2%	8.3	89	119	0.3	29.4	8.6	28.2	48.8	C
	Right Turn	2	2	100.0%	1.5	0	4	0.0	9.8	17.3	0.0	56.1	A
	Second Right												
	Subtotal	421	420	99.6%	6.9	407	426	0.1	44.3	16.2	42.0	76.9	D
Total		1,340	1,189	88.7%	44.1	1,123	1,246	4.3	26.6	8.2	23.6	44.0	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	3	3	103.3%	1.8	1	6	0.1	24.8	40.7	9.8	130.0	C
	Through												
	Right Turn	196	195	99.7%	2.4	192	199	0.0	39.9	55.1	15.1	186.9	E
	Second Right												
	Subtotal	199	199	99.7%	1.7	196	201	0.0	39.7	54.7	14.8	185.9	E
EB	U Turn												
	Second Left												
	Left Turn	135	108	79.8%	11.4	82	123	2.5	1.4	2.0	0.5	6.0	A
	Through	144	122	84.7%	17.2	92	150	1.9	0.6	0.4	0.4	2.5	A
	Right Turn												
	Second Right												
	Subtotal	279	230	82.3%	22.0	188	256	3.1	0.9	1.0	0.5	2.9	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	225	224	99.3%	3.7	217	228	0.1	36.4	36.6	22.2	129.1	E
	Right Turn	3	3	96.7%	2.6	0	8	0.1	4.9	7.0	0.0	41.1	A
	Second Right												
	Subtotal	228	226	99.3%	1.4	225	229	0.1	35.9	36.2	22.2	127.6	E
Total		706	655	92.7%	21.9	617	681	2.0	26.6	33.3	12.7	115.5	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	39	36	92.6%	6.8	25	47	0.5	39.6	33.2	28.3	132.0	D
	Through	11	11	102.7%	3.1	6	16	0.1	39.3	32.1	32.5	124.2	D
	Right Turn	188	187	99.7%	5.7	177	195	0.0	31.5	55.5	12.1	189.3	C
	Second Right Subtotal	238	235	98.7%	3.3	230	240	0.2	32.3	48.1	14.5	168.9	C
SB	U Turn Second Left												
	Left Turn	55	57	102.7%	7.2	42	70	0.2	52.5	67.7	23.5	243.2	D
	Through	30	28	94.3%	6.1	19	41	0.3	31.3	9.1	32.9	61.1	C
	Right Turn	124	122	98.5%	6.0	113	132	0.2	19.3	2.5	21.3	34.9	B
	Second Right Subtotal	209	207	99.0%	1.7	205	210	0.1	29.8	20.6	24.4	87.9	C
EB	U Turn Second Left												
	Left Turn	16	16	98.1%	3.0	12	23	0.1	27.7	11.5	30.0	49.5	C
	Through	348	349	100.2%	10.0	337	369	0.0	29.0	47.3	13.6	163.5	C
	Right Turn	73	74	101.5%	11.3	63	98	0.1	15.3	16.7	10.2	61.9	B
	Second Right Subtotal	437	439	100.3%	13.8	418	455	0.1	26.6	40.1	13.4	140.6	C
WB	U Turn Second Left												
	Left Turn	439	292	66.4%	17.5	264	318	7.7	43.5	5.1	45.2	53.8	D
	Through	607	454	74.8%	43.1	382	508	6.6	230.1	24.5	238.0	293.0	F
	Right Turn	22	18	80.0%	4.7	9	26	1.0	0.6	0.3	0.5	2.8	A
	Second Right Subtotal	1,068	763	71.5%	61.0	674	852	10.1	149.6	9.1	153.0	184.2	F
Total		1,952	1,644	84.2%	55.5	1,573	1,711	7.3	85.4	19.9	80.1	141.6	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	155	154	99.3%	1.3	153	157	0.1	0.5	0.1	0.4	0.7	A
	Second Right												
	Subtotal	155	154	99.3%	1.3	153	157	0.1	0.5	0.1	0.4	0.7	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	633	416	65.7%	38.4	343	477	9.5	363.0	60.3	321.5	516.1	F
	Second Right												
	Subtotal	633	416	65.7%	38.4	343	477	9.5	363.0	60.3	321.5	516.1	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	488	489	100.2%	17.0	462	516	0.0	0.1	0.0	0.1	0.1	A
	Right Turn	133	132	98.9%	12.0	114	152	0.1	0.1	0.0	0.1	0.3	A
	Second Right												
	Subtotal	621	620	99.9%	14.4	598	639	0.0	0.1	0.0	0.1	0.1	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	492	391	79.5%	26.4	343	435	4.8	184.0	26.5	188.3	257.6	F
	Right Turn	376	365	97.1%	16.4	340	394	0.6	1.5	0.1	1.6	2.4	A
	Second Right												
	Subtotal	868	757	87.2%	27.2	703	796	3.9	93.7	15.8	95.4	134.8	F
Total		2,277	1,946	85.5%	54.0	1,860	2,019	7.2	114.6	14.5	112.0	145.9	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	343	249	72.7%	39.9	187	304	5.5	445.1	275.1	196.6	1053.9	F
	Through												
	Right Turn	250	172	68.8%	28.1	111	217	5.4	581.4	305.1	353.5	1256.4	F
	Second Right												
	Subtotal	593	421	71.0%	64.0	298	521	7.6	509.3	296.1	275.8	1161.5	F
EB	U Turn												
	Second Left												
	Left Turn	262	261	99.5%	14.4	231	275	0.1	50.8	5.4	52.3	63.9	D
	Through	381	384	100.8%	17.3	358	410	0.2	9.8	1.9	9.2	13.4	A
	Right Turn												
	Second Right												
	Subtotal	643	645	100.3%	18.7	611	669	0.1	26.9	3.3	25.5	32.5	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	618	603	97.6%	16.6	582	636	0.6	76.6	17.8	60.0	130.5	E
	Right Turn	92	90	98.0%	11.4	75	111	0.2	39.5	20.0	21.3	86.7	D
	Second Right												
	Subtotal	710	693	97.6%	22.9	659	728	0.6	72.0	18.4	54.7	119.3	E
Total		1,946	1,759	90.4%	55.1	1,644	1,832	4.3	125.4	27.8	91.7	185.3	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	61	60	98.4%	5.7	50	70	0.1	59.1	6.6	52.8	71.7	E	
	Through	3	3	93.3%	1.6	1	6	0.1	35.2	41.9	36.7	117.6	D	
	Right Turn	30	30	101.0%	4.3	22	35	0.1	8.3	5.4	6.5	21.4	A	
	Second Right													
	Subtotal	94	93	99.0%	1.3	90	95	0.1	41.2	5.7	42.7	54.2	D	
SB	U Turn Second Left													
	Left Turn	5	5	104.0%	2.3	1	8	0.1	42.1	41.6	52.9	121.0	D	
	Through	27	29	105.9%	4.9	21	36	0.3	44.8	12.3	55.8	108.7	D	
	Right Turn	149	148	99.1%	4.5	142	155	0.1	19.1	8.2	21.3	59.6	B	
	Second Right													
	Subtotal	181	181	100.2%	2.4	176	184	0.0	24.4	8.1	26.6	63.8	C	
EB	U Turn Second Left													
	Left Turn	43	36	84.7%	6.8	29	51	1.0	54.2	12.7	58.9	86.2	D	
	Through	504	449	89.1%	33.4	400	496	2.5	9.0	3.0	8.4	16.3	A	
	Right Turn	157	132	84.1%	12.0	114	156	2.1	5.8	1.7	5.4	11.3	A	
	Second Right													
	Subtotal	724	634	87.6%	38.6	583	693	3.4	12.0	2.7	11.6	18.5	B	
WB	U Turn Second Left													
	Left Turn	44	45	102.3%	5.4	37	53	0.1	75.7	19.5	66.8	107.8	E	
	Through	480	473	98.5%	27.4	425	506	0.3	11.1	2.8	11.5	28.1	B	
	Right Turn	11	12	108.2%	2.2	9	16	0.3	2.8	1.0	2.2	9.6	A	
	Second Right													
	Subtotal	535	530	99.0%	26.8	481	557	0.2	17.5	3.2	13.8	27.9	B	
Total		1,534	1,439	93.8%	42.9	1,376	1,520	2.5	17.8	2.1	17.2	29.5	B	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing with Alternative 1
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Left Turn	13	12	95.4%	2.8	5	15	0.2	50.9	26.3	52.5	99.0	F
	Through												
	Right Turn	4	3	80.0%	2.8	1	11	0.4	2.0	3.3	4.5	64.2	A
	Second Right												
	Subtotal	17	16	91.8%	1.0	13	16	0.3	39.4	19.8	42.2	81.2	E
SB	Left Turn	5	2	32.0%	1.2	0	3	1.9	11.1	35.2	0.0	410.3	B
	Through												
	Right Turn	6	3	55.0%	1.6	0	5	1.3	6.3	10.5	0.0	45.2	A
	Second Right												
	Subtotal	11	5	44.5%	2.7	0	8	2.2	9.7	19.6	0.0	234.5	A
NE	Through												
	Right Turn	35	36	102.9%	0.7	35	37	0.2	9.2	3.9	7.2	16.3	A
	Second Right												
	Subtotal	35	36	102.9%	0.7	35	37	0.2	9.2	3.9	7.2	16.3	A
EB	U Turn												
	Second Left												
	Left Turn	3	0	13.3%	0.7	0	2	2.0	155.6	492.1	0.0	1556.2	F
	Through	577	579	100.4%	14.5	556	599	0.1	2.1	2.7	0.4	9.2	A
	Right Turn	11	12	107.3%	3.7	5	17	0.2	0.3	0.4	0.1	1.4	A
	Second Right												
	Subtotal	591	592	100.1%	12.7	571	609	0.0	4.9	11.6	0.4	37.7	A
WB	U Turn												
	Second Left	27	12	43.7%	3.7	5	17	3.5	0.3	0.4	0.1	1.4	A
	Left Turn	35	22	62.6%	5.1	14	28	2.5	9.0	3.7	11.3	28.2	A
	Through	1,049	748	71.3%	61.5	659	840	10.0	45.9	8.4	45.1	62.0	E
	Right Turn	14	8	56.4%	3.2	3	14	1.8	29.2	20.7	13.6	82.7	D
	Second Right												
	Subtotal	1,125	789	70.2%	60.5	695	883	10.8	43.6	7.6	42.4	58.6	E
Total		1,779	1,437	80.8%	57.1	1,345	1,522	8.5	27.1	8.0	24.0	48.8	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 20		D St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	5	5	102.0%	2.0	2	8	0.0	6.6	7.4	7.1	29.9	A
	Through	2	2	75.0%	1.1	0	3	0.4	2.2	3.5	0.0	36.4	A
	Right Turn	18	17	96.7%	2.4	13	20	0.1	4.5	0.3	4.7	5.8	A
	Second Right												
	Subtotal	25	24	96.0%	0.5	23	25	0.2	5.5	2.2	5.7	14.2	A
SB	U Turn Second Left												
	Left Turn	27	27	100.7%	3.9	20	34	0.0	12.5	3.7	9.5	18.3	B
	Through	12	13	104.2%	2.7	9	18	0.1	10.2	6.0	10.2	23.5	B
	Right Turn	13	13	100.0%	3.5	6	18	0.0	8.1	5.2	7.9	19.3	A
	Second Right												
	Subtotal	52	53	101.3%	0.7	51	53	0.1	10.6	2.1	11.5	16.0	B
EB	U Turn Second Left												
	Left Turn	5	6	112.0%	1.8	4	8	0.3	9.0	8.8	9.2	41.0	A
	Through	90	93	103.6%	4.8	86	100	0.3	6.6	3.6	6.3	12.6	A
	Right Turn	19	20	105.3%	3.7	15	24	0.2	5.5	5.7	3.0	29.5	A
	Second Right												
	Subtotal	114	119	104.2%	1.6	117	122	0.4	6.4	3.7	7.7	13.3	A
WB	U Turn Second Left												
	Left Turn	21	21	98.1%	5.3	11	28	0.1	11.3	9.0	7.8	35.6	B
	Through	481	484	100.5%	17.8	454	515	0.1	5.9	1.5	4.6	8.1	A
	Right Turn	53	57	107.4%	5.8	44	64	0.5	3.2	1.0	3.4	6.1	A
	Second Right												
	Subtotal	555	561	101.1%	21.9	525	594	0.3	5.7	1.3	4.5	7.5	A
Total		746	757	101.4%	22.6	719	789	0.4	6.2	1.3	5.5	8.3	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 21		E St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	456	458	100.4%	17.7	430	480	0.1	25.5	4.5	23.0	35.6	C
	Through	65	60	92.6%	10.0	48	79	0.6	27.3	4.8	27.1	35.7	C
	Right Turn	249	254	102.2%	16.5	237	290	0.3	7.9	2.8	5.7	12.5	A
	Second Right												
	Subtotal	770	772	100.3%	20.7	735	801	0.1	19.9	3.7	18.3	27.7	B
SB	U Turn Second Left												
	Left Turn	2	2	100.0%	1.2	0	4	0.0	25.6	28.3	0.0	67.0	C
	Through	10	8	75.0%	1.9	4	10	0.8	37.6	19.5	12.8	75.7	D
	Right Turn	2	3	130.0%	2.3	0	8	0.4	3.1	6.2	0.0	26.2	A
	Second Right												
	Subtotal	14	12	86.4%	0.3	12	13	0.5	29.3	9.5	19.8	43.5	C
EB	U Turn Second Left												
	Left Turn	2	1	35.0%	0.8	0	2	1.1	17.3	34.6	0.0	86.8	B
	Through	28	27	95.4%	4.0	21	32	0.2	39.6	5.7	44.2	76.4	D
	Right Turn	105	111	105.6%	7.0	101	123	0.6	12.9	2.8	14.2	20.7	B
	Second Right												
	Subtotal	135	138	102.4%	6.9	124	148	0.3	19.1	2.8	18.4	25.6	B
WB	U Turn Second Left												
	Left Turn	322	320	99.2%	9.9	308	333	0.1	55.4	8.4	55.3	70.2	E
	Through	97	98	101.4%	8.2	86	110	0.1	40.1	6.7	41.2	64.4	D
	Right Turn	2	2	105.0%	1.4	0	4	0.1	9.2	19.8	0.0	54.8	A
	Second Right												
	Subtotal	421	420	99.8%	4.6	413	427	0.0	51.4	7.6	52.2	64.9	D
Total		1,340	1,343	100.2%	24.4	1,290	1,374	0.1	29.3	3.7	28.8	35.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	3	3	110.0%	2.3	0	6	0.2	27.6	34.5	0.0	101.3	D
	Through												
	Right Turn	196	195	99.7%	2.4	191	198	0.0	32.3	30.1	30.9	112.2	D
	Second Right												
	Subtotal	199	199	99.8%	1.5	197	202	0.0	32.1	29.6	31.0	110.4	D
EB	U Turn												
	Second Left												
	Left Turn	135	139	102.7%	14.1	117	165	0.3	1.2	1.2	0.7	4.2	A
	Through	144	145	100.4%	9.0	126	157	0.0	0.8	0.7	0.5	2.3	A
	Right Turn												
	Second Right												
	Subtotal	279	283	101.5%	18.1	266	322	0.3	1.0	0.8	0.6	2.5	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	225	223	99.2%	2.6	219	227	0.1	34.3	13.7	33.1	62.2	D
	Right Turn	3	3	103.3%	1.8	1	6	0.1	22.9	29.8	4.2	91.0	C
	Second Right												
	Subtotal	228	226	99.3%	1.7	224	229	0.1	34.2	13.5	32.6	61.4	D
Total		706	708	100.3%	18.0	690	748	0.1	21.4	12.7	17.4	48.3	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	39	49	126.7%	4.3	45	56	1.6	36.0	8.1	35.9	86.7	D
	Through	11	10	91.8%	3.4	6	15	0.3	32.4	18.2	34.3	79.7	C
	Right Turn	188	188	100.1%	4.7	180	195	0.0	8.7	3.9	9.3	33.6	A
	Second Right Subtotal	238	248	104.0%	2.0	244	250	0.6	14.9	3.0	17.5	34.5	B
SB	U Turn Second Left												
	Left Turn	60	59	98.2%	4.3	51	65	0.1	35.9	9.1	33.9	46.1	D
	Through	30	30	100.7%	5.4	22	39	0.0	39.5	12.7	40.4	61.7	D
	Right Turn	124	123	99.0%	6.3	111	132	0.1	20.1	5.8	21.3	31.2	C
	Second Right Subtotal	214	212	99.0%	2.9	209	219	0.1	27.2	5.3	27.7	36.7	C
EB	U Turn Second Left												
	Left Turn	19	17	91.1%	2.8	13	21	0.4	35.2	13.7	34.3	62.2	D
	Through	345	347	100.5%	9.8	335	362	0.1	34.4	8.7	24.1	45.0	C
	Right Turn	73	73	99.3%	8.6	59	86	0.1	30.3	12.5	20.5	48.0	C
	Second Right Subtotal	437	437	99.9%	8.6	421	450	0.0	33.7	9.0	23.5	44.0	C
WB	U Turn Second Left												
	Left Turn	501	502	100.1%	17.5	472	533	0.0	27.4	1.4	26.6	32.9	C
	Through	594	596	100.3%	20.5	561	627	0.1	14.9	4.2	14.7	22.4	B
	Right Turn	22	21	97.3%	3.0	18	25	0.1	3.2	1.0	2.7	7.2	A
	Second Right Subtotal	1,117	1,119	100.2%	26.0	1,073	1,154	0.1	20.5	2.0	19.9	24.3	C
Total		2,006	2,015	100.4%	24.0	1,976	2,052	0.2	23.5	2.1	23.4	26.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	155	160	103.0%	9.3	145	174	0.4	24.0	2.9	19.7	28.3	C
	Through												
	Right Turn	633	628	99.2%	10.4	613	645	0.2	11.8	1.0	12.1	16.1	B
	Second Right												
	Subtotal	788	788	100.0%	3.9	782	793	0.0	14.4	1.0	14.1	17.1	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	488	490	100.3%	15.9	464	518	0.1	16.6	3.2	15.5	23.5	B
	Right Turn	133	135	101.3%	13.9	113	153	0.1	3.1	1.0	2.8	7.7	A
	Second Right												
	Subtotal	621	624	100.5%	7.0	611	634	0.1	13.8	2.8	13.0	19.6	B
WB	U Turn												
	Second Left												
	Left Turn	376	376	100.0%	22.7	332	406	0.0	33.2	7.5	31.7	42.7	C
	Through	492	503	102.3%	20.0	467	528	0.5	7.6	1.6	7.8	12.3	A
	Right Turn												
	Second Right												
	Subtotal	868	879	101.3%	16.7	851	904	0.4	19.3	4.2	18.7	24.4	B
Total		2,277	2,292	100.6%	19.2	2,268	2,321	0.3	16.1	1.9	15.3	18.2	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	343	337	98.2%	10.4	319	354	0.3	44.2	4.9	42.1	55.9	D
	Through												
	Right Turn	250	252	101.0%	10.7	236	267	0.2	13.7	3.5	11.9	22.5	B
	Second Right												
	Subtotal	593	589	99.3%	5.9	580	600	0.2	31.9	4.1	28.7	41.0	C
EB	U Turn												
	Second Left												
	Left Turn	262	262	99.9%	14.0	241	284	0.0	58.6	6.8	56.1	70.8	E
	Through	381	387	101.6%	17.4	357	410	0.3	8.2	1.0	8.0	13.6	A
	Right Turn												
	Second Right												
	Subtotal	643	649	100.9%	15.6	629	668	0.2	27.8	3.6	27.4	36.4	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	618	630	101.9%	18.9	595	649	0.5	22.1	2.6	23.4	27.2	C
	Right Turn	92	91	98.6%	10.4	73	105	0.1	15.3	3.4	16.5	25.3	B
	Second Right												
	Subtotal	710	720	101.4%	22.6	682	749	0.4	21.2	2.4	22.6	26.6	C
Total		1,946	1,958	100.6%	27.3	1,903	1,996	0.3	26.8	2.2	25.2	31.7	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	61	62	100.8%	3.3	58	67	0.1	56.6	8.6	56.8	80.5	E	
	Through	3	3	110.0%	1.9	1	7	0.2	8.3	13.7	3.5	90.3	A	
	Right Turn	30	28	93.3%	4.1	21	34	0.4	6.9	2.3	5.6	11.2	A	
	Second Right Subtotal	94	93	98.7%	1.2	90	94	0.1	42.5	8.3	38.1	55.3	D	
SB	U Turn Second Left													
	Left Turn	5	5	94.0%	2.5	1	8	0.1	46.0	36.3	27.8	103.2	D	
	Through	27	27	100.4%	4.4	22	37	0.0	57.8	13.1	65.3	78.1	E	
	Right Turn	149	149	100.3%	6.3	138	161	0.0	22.6	8.4	17.4	39.9	C	
	Second Right Subtotal	181	181	100.1%	3.0	177	186	0.0	28.9	9.2	26.1	44.4	C	
EB	U Turn Second Left	20	18	92.0%	2.9	14	23	0.4	61.8	20.8	65.3	94.4	E	
	Left Turn	43	41	94.9%	3.9	33	48	0.3	63.1	11.2	64.5	84.7	E	
	Through	504	507	100.7%	14.1	487	531	0.1	11.8	1.8	9.9	14.4	B	
	Right Turn	157	159	101.0%	10.3	145	176	0.1	7.5	2.5	6.7	11.1	A	
	Second Right Subtotal	724	725	100.2%	17.6	697	754	0.0	15.2	1.7	14.3	18.8	B	
WB	U Turn Second Left													
	Left Turn	44	45	101.4%	8.2	33	63	0.1	70.1	26.3	61.1	134.0	E	
	Through	480	486	101.1%	18.6	456	506	0.3	10.7	1.8	10.0	16.2	B	
	Right Turn	11	11	95.5%	2.2	8	15	0.2	2.7	1.0	3.0	8.6	A	
	Second Right Subtotal	535	541	101.0%	17.1	514	557	0.2	15.5	3.7	14.7	23.9	B	
Total		1,534	1,540	100.4%	31.1	1,481	1,582	0.1	18.4	2.6	18.2	23.3	B	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Left Turn												
	Through												
	Right Turn	4	4	102.5%	0.3	4	5	0.0	5.4	0.4	5.7	7.2	A
	Second Right												
	Subtotal	4	4	102.5%	0.3	4	5	0.0	5.4	0.4	5.7	7.2	A
SB	Left Turn												
	Through												
	Right Turn												
	Second Right	6	5	83.3%	0.0	5	5	0.4	15.3	20.4	10.8	73.0	C
	Subtotal	6	5	83.3%	0.0	5	5	0.4	15.3	20.4	10.8	73.0	C
NE	Through												
	Right Turn	35	36	102.0%	0.5	35	36	0.1	10.2	1.6	8.6	14.3	B
	Second Right												
	Subtotal	35	36	102.0%	0.5	35	36	0.1	10.2	1.6	8.6	14.3	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	582	585	100.6%	6.2	575	594	0.1	0.5	0.1	0.5	0.7	A
	Right Turn	11	9	79.1%	2.8	4	14	0.7	0.5	0.5	0.4	1.8	A
	Second Right												
	Subtotal	593	594	100.2%	6.5	583	604	0.0	0.5	0.1	0.5	0.7	A
WB	U Turn												
	Second Left												
	Left Turn	501	503	100.3%	18.4	471	538	0.1	3.1	1.0	3.0	5.2	A
	Through	594	594	100.0%	20.5	557	624	0.0	5.8	3.1	4.6	12.1	A
	Right Turn	22	21	95.9%	3.0	18	25	0.2	2.8	0.9	2.4	5.1	A
	Second Right	14	13	94.3%	3.5	9	19	0.2	1.4	1.1	0.8	3.3	A
	Subtotal	1,131	1,131	100.0%	26.4	1,082	1,163	0.0	4.5	1.6	3.9	7.7	A
Total		1,769	1,770	100.1%	28.4	1,722	1,808	0.0	3.4	1.1	2.9	5.5	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	33	30	92.1%	4.3	24	39	0.5	15.3	6.1	17.0	32.4	B
	Through	35	38	109.4%	5.4	26	45	0.5	16.1	2.5	16.7	27.7	B
	Right Turn	73	75	103.2%	6.7	67	86	0.3	7.2	2.2	6.5	15.1	A
	Second Right Subtotal	141	144	102.1%	1.5	141	146	0.3	11.3	1.9	11.5	18.0	B
SB	U Turn Second Left												
	Left Turn	92	94	101.7%	4.4	86	99	0.2	17.0	4.4	16.9	32.5	B
	Through	35	34	98.3%	5.6	24	44	0.1	15.1	5.5	14.9	29.0	B
	Right Turn	21	19	90.5%	4.3	13	25	0.4	6.3	2.6	6.1	16.7	A
	Second Right Subtotal	148	147	99.3%	1.8	143	150	0.1	15.2	3.5	16.3	28.5	B
EB	U Turn Second Left												
	Left Turn	12	12	102.5%	2.9	9	17	0.1	35.5	10.5	32.6	56.7	D
	Through	293	297	101.3%	11.1	282	310	0.2	28.5	8.1	25.8	46.7	C
	Right Turn	64	66	102.8%	7.7	56	79	0.2	23.4	12.0	21.1	49.1	C
	Second Right Subtotal	369	375	101.6%	5.3	367	383	0.3	27.8	8.4	25.1	44.9	C
WB	U Turn Second Left												
	Left Turn	73	70	96.4%	8.7	56	81	0.3	18.7	4.6	19.9	29.2	B
	Through	209	193	92.3%	11.0	179	212	1.1	9.3	2.2	8.7	12.8	A
	Right Turn	70	88	125.7%	11.8	62	106	2.0	7.0	2.5	4.9	11.0	A
	Second Right Subtotal	352	351	99.8%	11.3	327	369	0.0	10.5	2.2	9.4	13.9	B
Total		1,010	1,017	100.7%	15.5	982	1,035	0.2	17.8	3.9	17.2	24.6	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	270	269	99.6%	7.2	259	280	0.1	24.7	3.5	22.8	29.4	C
	Through	117	117	100.2%	12.1	93	136	0.0	22.1	4.6	25.0	38.3	C
	Right Turn	293	282	96.1%	19.8	261	316	0.7	3.4	0.8	3.6	9.0	A
	Second Right Subtotal	680	668	98.2%	16.6	645	700	0.5	15.4	1.9	14.2	22.9	B
SB	U Turn Second Left												
	Left Turn	6	7	110.0%	2.5	4	11	0.2	23.2	25.6	33.7	83.8	C
	Through	233	233	100.0%	6.0	223	243	0.0	38.4	9.0	34.7	55.9	D
	Right Turn	46	47	102.0%	5.2	39	53	0.1	24.7	13.4	22.0	58.2	C
	Second Right Subtotal	285	287	100.6%	3.6	282	293	0.1	35.5	9.6	34.5	53.1	D
EB	U Turn Second Left												
	Left Turn	15	16	108.7%	2.9	11	21	0.3	50.2	16.3	39.6	86.4	D
	Through	52	51	98.3%	5.3	44	58	0.1	44.8	12.2	56.5	72.0	D
	Right Turn	391	399	102.0%	11.7	375	417	0.4	17.8	3.7	16.4	25.3	B
	Second Right Subtotal	458	466	101.8%	10.8	446	483	0.4	21.8	3.7	22.5	28.3	C
WB	U Turn Second Left												
	Left Turn	167	167	99.9%	4.9	161	177	0.0	36.0	4.8	37.4	52.4	D
	Through	36	35	98.1%	4.5	25	40	0.1	32.6	9.1	22.6	44.7	C
	Right Turn	3	3	113.3%	1.5	2	6	0.2	10.4	24.4	4.0	76.9	B
	Second Right Subtotal	206	206	99.8%	4.2	201	212	0.0	35.0	4.5	35.5	46.5	D
Total		1,629	1,626	99.8%	16.1	1,604	1,654	0.1	23.5	2.6	23.4	29.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	13	13	97.7%	3.2	7	19	0.1	9.8	2.2	7.6	22.0	A
	Through												
	Right Turn	95	97	101.9%	3.2	91	103	0.2	7.3	0.7	6.1	9.6	A
	Second Right												
	Subtotal	108	110	101.4%	0.8	108	111	0.1	7.7	0.8	6.3	9.3	A
EB	U Turn												
	Second Left												
	Left Turn	144	138	95.8%	10.3	125	158	0.5	0.9	0.3	0.8	1.7	A
	Through	207	201	97.2%	11.3	183	219	0.4	0.7	0.3	0.7	1.9	A
	Right Turn												
	Second Right												
	Subtotal	351	339	96.7%	19.3	314	377	0.6	0.8	0.2	0.7	1.7	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	111	108	97.2%	2.1	105	112	0.3	10.1	1.0	9.8	12.7	B
	Right Turn	11	14	122.7%	1.5	10	15	0.7	7.7	1.9	8.2	17.8	A
	Second Right												
	Subtotal	122	121	99.5%	1.4	118	123	0.1	9.8	1.0	9.5	12.7	A
Total		581	570	98.1%	18.6	547	605	0.5	4.2	0.4	4.0	5.0	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	32	23	70.6%	4.6	15	29	1.8	102.0	10.8	97.0	142.5	F
	Through	28	20	70.4%	3.9	11	24	1.7	102.7	15.8	99.5	139.1	F
	Right Turn	500	343	68.6%	14.8	323	367	7.6	92.2	6.3	86.3	104.5	F
	Second Right												
	Subtotal	560	386	68.8%	13.8	370	406	8.0	93.5	6.7	88.0	107.2	F
SB	U Turn Second Left												
	Left Turn	118	113	96.0%	5.2	103	121	0.4	268.3	76.2	199.3	416.4	F
	Through	27	27	101.1%	6.7	17	39	0.1	83.6	36.9	31.9	143.1	F
	Right Turn	165	162	98.1%	8.1	153	175	0.3	75.5	42.2	23.8	137.2	E
	Second Right												
	Subtotal	310	302	97.5%	8.2	292	316	0.4	150.6	52.2	94.6	267.1	F
EB	U Turn Second Left												
	Left Turn	71	68	96.2%	9.8	52	82	0.3	37.7	8.4	37.5	52.3	D
	Through	649	661	101.8%	19.8	615	685	0.5	29.3	6.5	28.0	45.0	C
	Right Turn	71	72	102.0%	8.9	61	91	0.2	27.7	6.1	23.5	43.8	C
	Second Right												
	Subtotal	791	802	101.4%	14.8	771	822	0.4	29.8	6.5	28.4	44.2	C
WB	U Turn Second Left												
	Left Turn	227	225	99.0%	10.7	211	239	0.1	39.4	5.6	39.3	50.3	D
	Through	483	485	100.3%	13.4	467	506	0.1	37.5	26.8	24.7	129.0	D
	Right Turn	56	54	95.7%	8.8	41	70	0.3	1.0	0.4	1.0	2.2	A
	Second Right												
	Subtotal	766	763	99.6%	21.9	724	792	0.1	35.2	17.2	28.6	93.9	D
Total		2,427	2,253	92.8%	27.6	2,220	2,313	3.6	59.8	7.4	54.6	72.9	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	58	59	100.9%	0.5	58	59	0.1	0.4	0.0	0.4	1.8	A
	Second Right												
	Subtotal	58	59	100.9%	0.5	58	59	0.1	0.4	0.0	0.4	1.8	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	375	375	99.9%	1.8	373	378	0.0	4.5	5.6	1.2	16.1	A
	Second Right												
	Subtotal	375	375	99.9%	1.8	373	378	0.0	4.5	5.6	1.2	16.1	A
EB	U Turn												
	Second Left												
	Left Turn												
	Through	865	779	90.1%	21.1	751	819	3.0	0.1	0.0	0.1	0.1	A
	Right Turn	421	361	85.8%	12.8	344	377	3.0	0.3	0.2	0.2	0.7	A
	Second Right												
	Subtotal	1,286	1,140	88.7%	22.9	1,108	1,176	4.2	0.1	0.1	0.1	0.3	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	466	468	100.5%	16.5	445	490	0.1	20.4	27.1	3.9	81.0	C
	Right Turn	406	397	97.7%	21.6	368	434	0.5	1.4	0.3	1.4	2.2	A
	Second Right												
	Subtotal	872	865	99.2%	26.4	817	904	0.2	11.6	14.2	2.8	41.7	B
Total		2,591	2,439	94.1%	31.7	2,399	2,504	3.0	4.9	5.8	1.3	15.7	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	390	390	100.0%	9.5	372	399	0.0	51.8	7.7	44.8	63.8	D
	Through												
	Right Turn	233	227	97.2%	11.4	209	244	0.4	19.6	8.4	14.0	37.8	B
	Second Right												
	Subtotal	623	616	98.9%	4.5	608	625	0.3	40.9	7.4	31.2	53.4	D
EB	U Turn												
	Second Left												
	Left Turn	461	410	89.0%	19.8	377	450	2.4	51.3	4.0	51.6	60.5	D
	Through	462	428	92.6%	22.2	392	462	1.6	9.4	1.2	10.5	13.1	A
	Right Turn												
	Second Right												
	Subtotal	923	838	90.8%	21.4	813	878	2.9	29.8	2.4	28.1	34.6	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	639	640	100.2%	28.1	586	683	0.0	18.1	2.5	18.3	23.7	B
	Right Turn	152	155	102.2%	8.4	147	175	0.3	10.9	2.4	10.6	18.7	B
	Second Right												
	Subtotal	791	795	100.6%	30.0	733	836	0.2	16.7	2.3	17.3	22.3	B
Total		2,337	2,250	96.3%	38.9	2,181	2,322	1.8	28.7	1.8	26.8	32.5	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	148	147	99.3%	5.5	137	156	0.1	50.1	3.8	51.7	61.7	D	
	Through	19	19	98.4%	4.2	13	29	0.1	44.9	22.8	48.3	93.2	D	
	Right Turn	50	50	99.2%	6.1	40	61	0.1	13.6	8.8	9.2	30.0	B	
	Second Right Subtotal	217	215	99.2%	4.1	209	220	0.1	39.5	4.6	42.5	54.5	D	
SB	U Turn Second Left													
	Left Turn	34	33	96.8%	4.0	26	39	0.2	53.1	9.1	50.8	78.8	D	
	Through	1	2	210.0%	1.7	0	5	0.9	18.8	31.3	0.0	80.0	B	
	Right Turn	47	47	99.1%	4.1	41	52	0.1	6.6	1.5	6.0	14.3	A	
	Second Right Subtotal	82	82	99.5%	2.2	77	84	0.0	25.7	4.5	23.9	42.8	C	
EB	U Turn Second Left	34	37	107.6%	3.2	32	42	0.4	53.4	20.1	58.3	90.4	D	
	Left Turn	138	137	99.6%	12.8	118	163	0.1	52.3	11.9	46.2	72.6	D	
	Through	632	599	94.8%	24.5	552	629	1.3	15.7	3.3	15.0	21.2	B	
	Right Turn	48	45	93.1%	4.7	39	52	0.5	13.0	4.8	11.8	25.1	B	
	Second Right Subtotal	852	818	96.0%	30.0	766	863	1.2	22.6	2.8	21.5	28.2	C	
WB	U Turn Second Left													
	Left Turn	38	41	106.8%	4.6	32	46	0.4	60.6	12.6	64.1	88.0	E	
	Through	562	562	100.0%	26.5	509	592	0.0	24.5	7.3	24.7	40.5	C	
	Right Turn	4	3	70.0%	2.1	0	5	0.7	3.4	4.7	0.0	14.9	A	
	Second Right Subtotal	604	606	100.3%	26.2	554	635	0.1	26.6	6.8	27.4	41.9	C	
Total		1,755	1,720	98.0%	47.8	1,640	1,795	0.8	26.2	3.2	26.3	34.6	C	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Left Turn	2	1	65.0%	0.9	0	3	0.5	6.7	12.1	0.0	156.2	A
	Through												
	Right Turn	15	15	97.3%	1.1	12	16	0.1	9.6	3.7	8.9	15.9	A
	Second Right												
	Subtotal	17	16	93.5%	0.6	15	17	0.3	9.9	3.2	7.9	42.5	A
SB	Left Turn	10	10	100.0%	2.5	5	13	0.0	81.5	99.3	55.7	313.1	F
	Through												
	Right Turn	9	10	110.0%	2.7	7	15	0.3	25.9	31.6	15.9	142.8	D
	Second Right												
	Subtotal	19	20	104.7%	0.9	18	21	0.2	53.0	64.5	27.3	223.4	F
NE	Through												
	Right Turn	16	16	100.0%	0.0	16	16	0.0	11.3	3.5	7.3	19.0	B
	Second Right												
	Subtotal	16	16	100.0%	0.0	16	16	0.0	11.3	3.5	7.3	19.0	B
EB	U Turn												
	Second Left												
	Left Turn	2	2	110.0%	1.1	1	4	0.1	25.0	55.5	1.3	219.3	D
	Through	1,245	1,100	88.3%	22.0	1,068	1,133	4.2	0.4	0.1	0.4	0.7	A
	Right Turn	20	19	96.0%	5.1	9	25	0.2	0.2	0.2	0.1	2.4	A
	Second Right												
	Subtotal	1,267	1,121	88.5%	19.5	1,094	1,151	4.2	0.5	0.2	0.4	1.0	A
WB	U Turn												
	Second Left	18	19	106.7%	5.1	9	25	0.3	0.2	0.2	0.1	2.4	A
	Left Turn	11	19	168.2%	4.2	13	27	2.0	15.4	7.2	12.0	28.7	C
	Through	755	753	99.7%	19.2	721	777	0.1	16.7	11.6	8.6	37.8	C
	Right Turn	57	59	103.3%	5.2	50	64	0.2	10.7	7.9	4.5	25.0	B
	Second Right												
	Subtotal	841	850	101.0%	21.6	808	871	0.3	15.9	10.8	9.0	35.1	C
Total		2,160	2,022	93.6%	19.7	1,988	2,060	3.0	7.9	5.4	4.5	17.4	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	33	35	105.8%	6.1	26	45	0.3	15.5	4.9	15.5	25.2	B
	Through	35	36	102.9%	5.7	27	43	0.2	17.9	5.6	16.7	30.8	B
	Right Turn	73	73	100.0%	7.0	65	85	0.0	9.6	4.6	8.3	33.1	A
	Second Right												
	Subtotal	141	144	102.1%	1.0	143	146	0.2	12.9	3.6	12.3	23.8	B
SB	U Turn												
	Second Left												
	Left Turn	92	93	101.1%	4.4	87	100	0.1	23.3	12.0	21.4	74.3	C
	Through	35	32	92.3%	4.7	24	39	0.5	19.2	10.9	16.6	73.2	B
	Right Turn	21	22	102.4%	3.8	13	25	0.1	8.9	5.4	6.2	22.6	A
	Second Right												
	Subtotal	148	147	99.2%	2.3	142	150	0.1	20.6	10.6	19.8	66.7	C
EB	U Turn												
	Second Left												
	Left Turn	12	14	113.3%	3.9	9	22	0.4	18.8	11.0	19.4	76.0	B
	Through	293	294	100.4%	9.2	283	307	0.1	21.7	9.0	17.1	44.6	C
	Right Turn	64	66	103.1%	7.3	57	79	0.2	16.2	11.9	12.4	44.9	B
	Second Right												
	Subtotal	369	374	101.3%	4.6	365	379	0.3	20.6	9.2	17.1	44.6	C
WB	U Turn												
	Second Left												
	Left Turn	73	68	93.7%	6.4	57	81	0.5	18.3	5.4	12.7	30.8	B
	Through	209	194	92.6%	10.7	177	207	1.1	7.5	1.7	6.3	10.5	A
	Right Turn	70	96	136.9%	8.7	84	109	2.8	6.0	1.4	5.3	9.8	A
	Second Right												
	Subtotal	352	358	101.6%	11.1	339	372	0.3	9.5	1.8	8.6	12.1	A
Total		1,010	1,022	101.2%	10.5	1,003	1,034	0.4	15.8	6.0	13.6	30.9	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 21		E St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	270	268	99.1%	10.9	247	282	0.1	17.9	4.3	17.8	28.5	B
	Through	117	115	98.5%	10.5	96	136	0.2	19.4	4.5	20.2	29.5	B
	Right Turn	293	298	101.6%	11.4	276	314	0.3	4.5	1.7	3.5	9.2	A
	Second Right												
	Subtotal	680	680	100.1%	13.2	658	695	0.0	12.3	3.0	12.4	19.8	B
SB	U Turn												
	Second Left												
	Left Turn	6	6	100.0%	2.8	2	11	0.0	57.2	45.0	51.3	129.2	E
	Through	233	229	98.2%	7.7	215	242	0.3	57.8	23.3	42.9	121.3	E
	Right Turn	46	51	110.2%	6.3	42	61	0.7	36.3	25.1	25.4	101.8	D
	Second Right												
	Subtotal	285	286	100.2%	3.5	280	290	0.0	54.1	23.1	39.6	116.8	D
EB	U Turn												
	Second Left												
	Left Turn	15	14	91.3%	3.5	7	18	0.3	52.6	21.0	43.8	87.8	D
	Through	52	51	97.9%	5.9	41	58	0.2	56.4	8.1	53.3	79.1	E
	Right Turn	391	398	101.7%	6.7	387	410	0.3	26.4	10.1	18.2	54.5	C
	Second Right												
	Subtotal	458	462	100.9%	9.9	444	484	0.2	30.6	9.6	20.3	54.5	C
WB	U Turn												
	Second Left												
	Left Turn	167	165	98.6%	7.4	152	173	0.2	41.8	6.7	36.7	54.5	D
	Through	36	37	101.7%	5.2	30	45	0.1	38.7	11.0	28.9	64.9	D
	Right Turn	3	4	123.3%	1.4	2	6	0.4	9.2	15.2	2.6	46.7	A
	Second Right												
	Subtotal	206	205	99.5%	5.0	198	214	0.1	40.3	5.4	35.7	50.6	D
Total		1,629	1,633	100.3%	20.0	1,604	1,672	0.1	28.4	5.4	23.2	44.1	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	13	13	102.3%	3.9	7	20	0.1	10.2	5.3	6.9	23.0	B
	Through												
	Right Turn	95	97	102.0%	3.6	91	103	0.2	7.1	1.3	6.7	11.0	A
	Second Right												
	Subtotal	108	110	102.0%	0.9	109	112	0.2	7.5	1.6	6.7	12.5	A
EB	U Turn												
	Second Left												
	Left Turn	144	144	99.9%	10.5	130	162	0.0	0.7	0.3	0.6	1.3	A
	Through	207	212	102.2%	11.5	195	223	0.3	0.7	0.4	0.4	3.3	A
	Right Turn												
	Second Right												
	Subtotal	351	355	101.2%	14.9	331	376	0.2	0.7	0.3	0.5	2.5	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	111	109	97.8%	3.0	104	113	0.2	11.9	2.2	9.9	15.0	B
	Right Turn	11	13	117.3%	2.6	9	18	0.5	8.6	3.3	6.3	19.1	A
	Second Right												
	Subtotal	122	122	99.6%	1.4	118	123	0.0	11.5	2.1	9.6	14.4	B
Total		581	587	101.0%	14.5	563	609	0.2	4.3	0.7	3.9	5.4	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	34	27	78.2%	2.7	23	32	1.3	146.4	19.1	148.3	211.7	F	
	Through	28	21	75.4%	3.3	17	27	1.4	160.8	22.5	151.8	185.2	F	
	Right Turn	500	389	77.8%	13.5	372	411	5.3	175.7	19.4	176.6	205.6	F	
	Second Right Subtotal	562	437	77.7%	14.2	417	459	5.6	173.3	19.6	175.5	201.7	F	
SB	U Turn Second Left													
	Left Turn	126	126	99.9%	8.5	105	134	0.0	56.7	20.7	49.4	113.7	E	
	Through	27	28	102.6%	4.9	20	37	0.1	65.9	34.1	51.4	146.0	E	
	Right Turn	165	166	100.4%	8.1	158	179	0.1	44.0	34.1	30.3	135.3	D	
	Second Right Subtotal	318	319	100.4%	2.9	314	324	0.1	51.3	29.6	37.8	131.9	D	
EB	U Turn Second Left													
	Left Turn	71	68	95.5%	7.7	55	83	0.4	60.7	9.8	56.5	100.4	E	
	Through	649	652	100.5%	17.6	612	680	0.1	40.7	7.2	32.8	65.2	D	
	Right Turn	71	70	98.2%	6.7	60	82	0.2	38.6	8.7	30.3	56.1	D	
	Second Right Subtotal	791	790	99.8%	15.2	756	812	0.0	42.0	7.2	33.6	68.2	D	
WB	U Turn Second Left													
	Left Turn	256	253	98.9%	16.6	231	290	0.2	44.4	3.1	46.2	53.3	D	
	Through	481	489	101.6%	14.6	471	513	0.4	18.7	2.1	18.8	23.4	B	
	Right Turn	56	54	96.1%	10.6	38	67	0.3	3.9	0.5	4.3	5.6	A	
	Second Right Subtotal	793	796	100.3%	21.6	764	830	0.1	25.9	2.0	27.6	30.4	C	
Total		2,464	2,342	95.0%	25.7	2,309	2,385	2.5	62.1	5.3	57.8	72.4	E	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	58	60	103.3%	8.1	50	75	0.2	25.3	4.3	28.3	37.1	C
	Through												
	Right Turn	375	375	100.0%	8.0	361	385	0.0	9.1	0.8	9.3	11.8	A
	Second Right												
	Subtotal	433	435	100.4%	3.7	429	441	0.1	11.3	1.4	11.7	15.1	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	865	804	92.9%	26.8	776	849	2.1	11.1	1.5	10.1	13.1	B
	Right Turn	421	377	89.6%	23.8	346	432	2.2	6.2	1.0	4.7	8.3	A
	Second Right												
	Subtotal	1,286	1,181	91.9%	23.3	1,145	1,213	3.0	9.5	1.2	8.6	11.0	A
WB	U Turn												
	Second Left												
	Left Turn	406	410	101.0%	25.0	373	444	0.2	29.2	3.3	29.3	41.1	C
	Through	466	471	101.0%	15.9	438	491	0.2	3.3	0.8	3.1	4.8	A
	Right Turn												
	Second Right												
	Subtotal	872	881	101.0%	23.5	844	917	0.3	16.0	2.0	14.0	21.3	B
Total		2,591	2,497	96.4%	32.8	2,440	2,563	1.9	12.1	1.2	11.9	14.0	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	390	389	99.7%	13.4	363	405	0.1	49.9	6.9	47.5	60.8	D
	Through												
	Right Turn	233	230	98.5%	12.7	209	251	0.2	20.5	7.1	21.3	36.3	C
	Second Right												
	Subtotal	623	618	99.2%	6.4	609	630	0.2	39.7	6.7	39.5	51.0	D
EB	U Turn												
	Second Left												
	Left Turn	461	419	90.8%	26.1	389	462	2.0	55.3	6.0	51.9	66.5	E
	Through	462	445	96.3%	26.1	412	484	0.8	8.2	2.6	8.8	13.0	A
	Right Turn												
	Second Right												
	Subtotal	923	863	93.5%	26.9	829	911	2.0	31.2	4.1	29.0	38.6	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	639	655	102.5%	17.9	625	690	0.6	29.0	3.1	28.0	36.5	C
	Right Turn	152	146	96.1%	10.4	131	162	0.5	22.1	4.1	21.2	35.3	C
	Second Right												
	Subtotal	791	801	101.3%	22.4	760	829	0.4	27.8	3.0	26.4	35.8	C
Total		2,337	2,283	97.7%	34.1	2,214	2,337	1.1	32.5	3.0	31.7	37.5	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	148	149	100.7%	5.3	141	160	0.1	52.0	10.9	52.6	73.9	D
	Through	19	19	100.5%	3.3	13	25	0.0	44.0	17.8	52.9	102.0	D
	Right Turn	50	48	96.8%	3.6	41	53	0.2	17.0	8.5	16.1	32.8	B
	Second Right Subtotal	217	217	99.8%	2.0	213	219	0.0	43.6	9.5	44.6	59.3	D
SB	U Turn Second Left												
	Left Turn	34	32	94.4%	3.8	24	37	0.3	54.7	14.1	41.5	76.8	D
	Through	1	1	140.0%	0.7	0	2	0.4	22.6	32.2	0.0	103.1	C
	Right Turn	47	48	102.1%	3.5	42	55	0.1	7.2	2.7	6.6	12.3	A
	Second Right Subtotal	82	82	99.4%	0.8	81	83	0.1	24.4	4.5	21.4	40.2	C
EB	U Turn Second Left	34	36	104.7%	5.0	27	44	0.3	113.2	40.4	112.6	189.6	F
	Left Turn	138	134	96.8%	9.2	114	146	0.4	112.7	35.6	101.0	192.9	F
	Through	632	617	97.6%	19.3	589	648	0.6	9.0	3.2	7.7	17.0	A
	Right Turn	48	48	100.4%	7.0	35	59	0.0	5.8	2.5	3.5	21.3	A
	Second Right Subtotal	852	834	97.9%	28.8	802	884	0.6	30.4	11.7	25.5	59.7	C
WB	U Turn Second Left												
	Left Turn	38	37	96.8%	5.5	25	43	0.2	66.9	11.5	66.0	87.0	E
	Through	562	567	100.9%	20.6	527	593	0.2	11.7	1.3	11.3	15.8	B
	Right Turn	4	4	100.0%	2.1	1	7	0.0	3.8	5.8	1.7	19.4	A
	Second Right Subtotal	604	608	100.6%	23.1	565	635	0.2	15.0	1.9	14.2	19.8	B
Total		1,755	1,740	99.2%	40.2	1,694	1,807	0.3	26.1	6.1	23.7	41.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 1 Mitigated
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through	15	13	86.7%	0.0	13	13	0.5	5.8	0.2	5.7	6.7	A
	Right Turn												
	Second Right												
	Subtotal	15	13	86.7%	0.0	13	13	0.5	5.8	0.2	5.7	6.7	A
SB	Through	9	9	98.9%	0.3	8	9	0.0	16.0	10.2	14.1	43.6	C
	Right Turn												
	Second Right												
	Subtotal	9	9	98.9%	0.3	8	9	0.0	16.0	10.2	14.1	43.6	C
NE	Through	16	16	99.4%	0.6	15	17	0.0	16.8	5.6	18.4	28.9	C
	Right Turn												
	Second Right												
	Subtotal	16	16	99.4%	0.6	15	17	0.0	16.8	5.6	18.4	28.9	C
EB	U Turn	1,255	1,151	91.7%	20.7	1,126	1,181	3.0	0.6	0.2	0.6	1.0	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	20	19	93.5%	4.8	13	26	0.3	0.8	0.3	0.5	1.6	A	
	Subtotal	1,275	1,169	91.7%	18.1	1,151	1,196	3.0	0.6	0.2	0.6	1.0	A
WB	U Turn	256	253	98.8%	17.2	230	290	0.2	1.6	0.6	1.7	5.2	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal	57	56	98.8%	5.1	47	63	0.1	1.3	0.3	1.5	3.4	A
	Subtotal	841	847	100.7%	20.2	815	873	0.2	4.8	1.4	5.0	6.8	A
Total		2,156	2,054	95.3%	28.6	2,016	2,103	2.2	2.6	0.7	2.7	3.6	A

**A.3 – VISSIM CALCULATION SHEETS – EXISTING PLUS PROJECT
ACCESS SCENARIO 2**



Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	5	5	106.0%	2.8	2	10	0.1	5.3	5.5	9.4	22.1	A
	Through	3	3	86.7%	1.3	0	4	0.2	10.3	13.9	0.0	36.6	B
	Right Turn	16	15	92.5%	2.7	10	18	0.3	5.5	1.7	4.8	10.3	A
	Second Right												
	Subtotal	24	23	94.6%	3.8	12	24	0.3	6.4	2.2	5.8	11.4	A
SB	U Turn Second Left												
	Left Turn	23	23	101.3%	6.0	12	32	0.1	10.8	2.2	12.1	30.2	B
	Through	14	14	98.6%	2.7	10	18	0.1	14.0	7.1	10.3	29.9	B
	Right Turn	13	13	97.7%	4.1	7	19	0.1	6.9	2.6	7.9	21.1	A
	Second Right												
	Subtotal	50	50	99.6%	7.1	30	54	0.0	10.5	2.0	9.8	25.0	B
EB	U Turn Second Left												
	Left Turn	1	2	170.0%	1.3	0	4	0.6	4.0	6.2	0.0	18.6	A
	Through	236	227	96.1%	31.7	137	240	0.6	7.2	2.9	8.8	19.3	A
	Right Turn	16	17	105.6%	5.5	6	28	0.2	4.1	4.4	4.6	22.5	A
	Second Right												
	Subtotal	253	245	97.0%	35.8	144	260	0.5	7.0	2.8	8.5	19.0	A
WB	U Turn Second Left												
	Left Turn	23	18	77.0%	4.2	9	24	1.2	9.8	4.4	10.4	57.9	A
	Through	418	341	81.6%	55.6	196	387	4.0	5.5	1.4	4.6	8.8	A
	Right Turn	53	55	103.0%	13.5	33	82	0.2	5.0	2.0	3.7	8.9	A
	Second Right												
	Subtotal	494	413	83.7%	65.7	244	480	3.8	5.5	0.9	4.8	8.1	A
Total		821	731	89.0%	109.3	430	811	3.2	6.4	1.1	6.6	11.2	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	470	388	82.6%	63.2	224	451	3.9	17.4	3.3	15.6	24.3	B
	Through	86	67	77.8%	12.5	39	82	2.2	15.2	3.7	15.7	31.3	B
	Right Turn	276	221	80.1%	40.2	119	265	3.5	3.0	1.7	3.1	7.9	A
	Second Right Subtotal	832	676	81.3%	108.0	382	764	5.7	12.3	2.7	11.7	18.3	B
SB	U Turn Second Left												
	Left Turn	2	2	95.0%	1.7	0	5	0.1	10.3	18.7	0.0	78.7	B
	Through	86	80	93.5%	11.3	52	96	0.6	24.4	4.9	26.2	37.7	C
	Right Turn	14	15	107.1%	5.0	7	22	0.3	9.0	5.0	8.3	25.1	A
	Second Right Subtotal	102	97	95.4%	13.4	60	105	0.5	21.5	3.6	23.8	33.4	C
EB	U Turn Second Left												
	Left Turn	2	2	95.0%	1.2	0	4	0.1	13.3	22.8	0.0	87.9	B
	Through	6	5	90.0%	2.1	1	8	0.3	33.6	22.2	17.6	78.4	C
	Right Turn	267	256	95.7%	40.0	143	275	0.7	12.5	1.8	12.8	15.6	B
	Second Right Subtotal	275	263	95.6%	41.7	146	283	0.7	13.4	2.0	12.4	16.0	B
WB	U Turn Second Left												
	Left Turn	121	115	94.8%	20.0	60	129	0.6	28.3	4.7	32.4	41.4	C
	Through	10	9	88.0%	1.9	7	13	0.4	33.3	17.0	26.1	72.5	C
	Right Turn	4	5	117.5%	2.9	1	10	0.3	7.8	11.5	3.8	36.0	A
	Second Right Subtotal	135	128	95.0%	20.7	71	140	0.6	27.9	4.2	30.9	40.0	C
Total		1,344	1,165	86.7%	180.7	659	1,279	5.1	15.2	2.2	15.2	20.0	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	3	2	73.3%	1.8	0	5	0.5	3.6	4.8	0.0	14.9	A
	Through												
	Right Turn	70	68	97.1%	9.0	43	74	0.2	6.2	1.0	6.1	7.5	A
	Second Right												
	Subtotal	73	70	96.2%	9.2	44	74	0.3	6.1	0.9	5.9	7.3	A
EB	U Turn												
	Second Left												
	Left Turn	136	110	81.0%	22.0	54	132	2.3	0.6	0.4	0.5	1.4	A
	Through	148	119	80.1%	21.1	66	143	2.6	0.5	0.3	0.2	1.9	A
	Right Turn												
	Second Right												
	Subtotal	284	229	80.5%	42.3	120	275	3.5	0.5	0.3	0.3	1.1	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	65	62	96.0%	7.4	42	67	0.3	8.7	1.5	6.7	12.9	A
	Right Turn	4	4	95.0%	2.1	1	9	0.1	6.5	4.9	4.3	14.4	A
	Second Right												
	Subtotal	69	66	95.9%	7.5	45	70	0.3	8.5	1.3	6.8	12.4	A
Total		426	365	85.7%	57.7	209	415	3.1	3.1	0.3	3.0	4.0	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	74	71	95.3%	7.3	57	80	0.4	32.0	10.2	30.3	62.8	C
	Through	6	6	95.0%	2.0	3	9	0.1	28.4	25.6	20.7	78.3	C
	Right Turn	150	149	99.4%	7.4	138	160	0.1	16.9	5.4	16.4	34.7	B
	Second Right												
	Subtotal	230	225	98.0%	9.8	205	234	0.3	21.7	7.0	22.5	44.3	C
SB	U Turn Second Left												
	Left Turn	61	58	94.4%	6.8	42	64	0.4	28.9	7.1	24.4	50.2	C
	Through	27	25	91.5%	9.0	4	39	0.5	24.9	11.5	35.1	71.2	C
	Right Turn	120	115	95.5%	20.0	60	132	0.5	19.0	7.3	23.4	39.3	B
	Second Right												
	Subtotal	208	197	94.7%	32.0	106	210	0.8	21.9	6.8	24.9	38.8	C
EB	U Turn Second Left												
	Left Turn	17	15	88.8%	5.0	9	26	0.5	28.2	12.8	29.5	55.9	C
	Through	332	311	93.6%	48.2	180	341	1.2	14.8	6.6	15.8	25.6	B
	Right Turn	125	122	97.4%	27.9	51	152	0.3	9.9	5.2	10.5	19.2	A
	Second Right												
	Subtotal	474	447	94.4%	74.4	240	491	1.2	13.8	6.1	14.9	23.4	B
WB	U Turn Second Left												
	Left Turn	346	271	78.4%	53.3	122	309	4.3	40.6	14.5	43.4	55.0	D
	Through	638	490	76.8%	91.5	244	562	6.2	227.5	20.3	230.3	292.6	F
	Right Turn	26	18	70.0%	5.3	9	29	1.7	0.5	0.3	0.5	2.2	A
	Second Right												
	Subtotal	1,010	780	77.2%	146.6	375	874	7.7	156.5	10.0	160.6	200.8	F
Total		1,922	1,649	85.8%	254.2	931	1,784	6.5	84.6	6.6	83.1	106.5	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	197	198	100.4%	1.4	196	201	0.0	0.5	0.1	0.5	1.0	A
	Second Right												
	Subtotal	197	198	100.4%	1.4	196	201	0.0	0.5	0.1	0.5	1.0	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	513	428	83.5%	79.4	209	488	3.9	287.7	106.0	186.7	411.9	F
	Second Right												
	Subtotal	513	428	83.5%	79.4	209	488	3.9	287.7	106.0	186.7	411.9	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	421	410	97.5%	42.5	299	446	0.5	0.1	0.0	0.1	0.1	A
	Right Turn	152	139	91.2%	19.5	93	164	1.1	0.1	0.1	0.1	0.4	A
	Second Right												
	Subtotal	573	549	95.8%	59.4	392	592	1.0	0.1	0.0	0.1	0.1	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	554	390	70.4%	73.6	187	438	7.5	150.7	59.2	159.2	228.9	F
	Right Turn	387	355	91.6%	62.1	186	408	1.7	1.6	0.4	1.4	2.5	A
	Second Right												
	Subtotal	941	745	79.1%	134.5	373	841	6.8	82.4	33.6	89.5	137.8	F
Total		2,224	1,920	86.3%	266.0	1,171	2,067	6.7	99.1	35.9	75.1	129.5	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	368	222	60.3%	38.2	153	288	8.5	414.1	211.4	297.3	903.0	F
	Through												
	Right Turn	336	194	57.9%	29.7	118	231	8.7	490.0	210.0	369.0	889.7	F
	Second Right												
	Subtotal	704	416	59.1%	63.9	271	519	12.2	451.5	210.5	325.9	898.1	F
EB	U Turn												
	Second Left												
	Left Turn	257	249	96.8%	28.7	176	276	0.5	51.7	5.4	49.3	62.1	D
	Through	361	362	100.1%	18.9	326	387	0.0	8.5	1.4	9.3	13.0	A
	Right Turn												
	Second Right												
	Subtotal	618	610	98.8%	41.8	502	647	0.3	23.9	4.4	26.5	31.0	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	605	574	94.9%	97.5	305	641	1.3	121.5	159.4	65.4	1179.8	F
	Right Turn	109	100	91.9%	19.0	57	124	0.9	75.3	117.0	22.7	1089.1	E
	Second Right												
	Subtotal	714	674	94.5%	112.4	362	743	1.5	113.5	149.8	59.2	1155.7	F
Total		2,036	1,701	83.6%	203.6	1,135	1,833	7.7	144.5	51.6	119.8	277.2	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	57	58	102.5%	5.2	50	68	0.2	118.9	189.7	61.5	658.6	F	
	Through	4	4	87.5%	1.2	1	5	0.3	25.8	29.7	39.5	98.9	C	
	Right Turn	32	31	97.8%	3.8	25	36	0.1	6.8	2.5	6.4	23.5	A	
	Second Right Subtotal	93	93	100.2%	3.3	84	95	0.0	49.6	27.6	41.1	177.0	D	
SB	U Turn Second Left													
	Left Turn	2	2	120.0%	1.3	1	5	0.3	30.4	40.8	50.1	97.7	C	
	Through	23	20	87.4%	5.0	15	31	0.6	43.4	28.1	52.6	98.6	D	
	Right Turn	150	144	96.1%	24.4	77	164	0.5	15.8	10.1	13.1	306.3	B	
	Second Right Subtotal	175	167	95.3%	25.5	95	181	0.6	20.5	11.6	23.3	136.1	C	
EB	U Turn Second Left	20	17	84.0%	3.7	12	23	0.7	83.3	76.9	63.4	438.8	F	
	Left Turn	139	110	78.8%	18.9	85	149	2.6	68.6	10.7	66.2	88.9	E	
	Through	419	341	81.4%	33.6	263	380	4.0	7.8	3.1	7.7	15.7	A	
	Right Turn	151	120	79.3%	13.0	99	147	2.7	3.7	1.0	3.4	13.6	A	
	Second Right Subtotal	729	587	80.5%	50.7	484	672	5.5	20.8	5.7	19.7	32.6	C	
WB	U Turn Second Left													
	Left Turn	55	52	94.9%	9.6	32	67	0.4	127.0	153.8	68.8	559.2	F	
	Through	487	467	95.9%	73.5	266	519	0.9	140.3	405.4	13.1	1294.1	F	
	Right Turn	18	20	112.8%	4.6	15	27	0.5	3.8	2.0	3.5	16.6	A	
	Second Right Subtotal	560	539	96.3%	81.8	314	593	0.9	111.1	291.2	17.9	939.6	F	
Total		1,557	1,386	89.0%	148.3	977	1,507	4.4	31.7	33.4	21.1	126.1	C	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Left Turn	13	11	83.8%	3.5	4	14	0.6	60.9	24.8	46.7	132.6	F
	Through												
	Right Turn	4	4	102.5%	2.6	2	11	0.0	19.9	29.8	6.3	81.0	C
	Second Right												
	Subtotal	17	15	88.2%	2.8	7	16	0.5	49.1	25.8	26.6	99.5	E
SB	Left Turn	5	2	38.0%	1.7	0	6	1.7	42.8	69.1	0.0	1416.9	E
	Through												
	Right Turn	6	4	65.0%	3.2	1	9	0.9	13.3	10.0	5.5	854.9	B
	Second Right												
	Subtotal	11	6	52.7%	4.5	1	12	1.8	23.3	28.8	2.7	922.5	C
NE	Through												
	Right Turn	35	36	102.9%	0.8	35	38	0.2	7.4	1.0	7.0	12.6	A
	Second Right												
	Subtotal	35	36	102.9%	0.8	35	38	0.2	7.4	1.0	7.0	12.6	A
EB	U Turn												
	Second Left												
	Left Turn	3	1	26.7%	0.4	0	1	1.6	52.6	166.3	0.0	3734.2	F
	Through	529	507	95.8%	58.3	352	551	1.0	0.5	0.2	0.5	1.2	A
	Right Turn	11	9	80.9%	2.3	4	12	0.7	0.5	0.8	0.2	2.8	A
	Second Right												
	Subtotal	543	516	95.1%	59.1	361	563	1.2	0.9	1.4	0.8	27.3	A
WB	U Turn												
	Second Left	30	9	29.7%	2.3	4	12	4.8	0.5	0.8	0.2	2.8	A
	Left Turn	32	17	52.2%	4.3	8	23	3.1	8.0	3.5	6.4	22.8	A
	Through	991	765	77.2%	142.6	371	862	7.6	40.7	3.4	39.8	54.6	E
	Right Turn	14	10	73.6%	2.8	7	14	1.1	21.3	12.3	24.4	57.6	C
	Second Right												
	Subtotal	1,067	801	75.1%	146.8	394	896	8.7	39.2	3.2	37.9	52.9	E
Total		1,673	1,374	82.2%	203.7	800	1,500	7.6	24.5	1.7	23.0	32.4	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	5	6	118.0%	2.2	3	10	0.4	7.2	7.9	8.7	23.4	A
	Through	3	2	73.3%	1.6	0	4	0.5	2.9	6.6	0.0	23.4	A
	Right Turn	16	16	99.4%	2.6	12	20	0.0	5.1	0.5	5.0	7.0	A
	Second Right												
	Subtotal	24	24	100.0%	0.7	23	25	0.0	5.6	2.0	7.3	10.0	A
SB	U Turn Second Left												
	Left Turn	23	24	102.6%	3.6	19	29	0.1	11.6	2.6	12.5	18.3	B
	Through	14	15	103.6%	2.4	10	19	0.1	12.7	4.7	9.5	21.8	B
	Right Turn	13	14	109.2%	2.6	11	19	0.3	8.0	4.2	8.1	23.1	A
	Second Right												
	Subtotal	50	52	104.6%	1.1	51	54	0.3	11.4	2.1	11.2	15.0	B
EB	U Turn Second Left												
	Left Turn	2	2	100.0%	1.4	0	5	0.0	6.8	6.4	0.0	22.4	A
	Through	236	239	101.4%	4.5	229	247	0.2	7.6	3.3	7.7	14.0	A
	Right Turn	16	17	104.4%	5.4	7	28	0.2	4.7	5.5	1.9	18.2	A
	Second Right												
	Subtotal	254	258	101.5%	2.9	253	262	0.2	7.5	3.2	7.2	13.7	A
WB	U Turn Second Left												
	Left Turn	23	24	103.9%	4.5	17	32	0.2	9.9	5.3	8.0	22.3	A
	Through	418	408	97.5%	24.1	374	442	0.5	5.5	1.7	4.9	8.4	A
	Right Turn	53	66	123.8%	9.9	44	80	1.6	4.7	1.1	3.8	7.0	A
	Second Right												
	Subtotal	494	497	100.6%	27.8	453	536	0.1	5.5	1.4	5.0	8.2	A
Total		822	831	101.1%	25.5	793	866	0.3	6.5	1.2	5.9	9.5	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 21		E St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	470	468	99.5%	25.5	435	511	0.1	19.9	5.4	17.2	33.0	B
	Through	86	91	105.7%	7.0	80	106	0.5	20.5	4.6	14.9	30.4	C
	Right Turn	276	282	102.1%	19.9	248	316	0.3	6.5	3.0	5.4	12.5	A
	Second Right												
	Subtotal	832	840	101.0%	29.7	784	886	0.3	15.6	4.7	14.0	26.8	B
SB	U Turn												
	Second Left												
	Left Turn	2	2	105.0%	1.7	0	5	0.1	14.8	18.7	0.0	65.0	B
	Through	86	84	98.0%	5.4	77	96	0.2	31.5	7.8	24.1	46.4	C
	Right Turn	14	16	111.4%	4.4	7	22	0.4	13.3	5.5	7.3	25.2	B
	Second Right												
	Subtotal	102	102	100.0%	1.8	98	105	0.0	28.1	7.5	23.3	40.9	C
EB	U Turn												
	Second Left												
	Left Turn	2	2	85.0%	1.2	0	4	0.2	11.8	21.0	0.0	93.9	B
	Through	6	5	88.3%	1.6	4	8	0.3	35.2	23.0	32.4	74.3	D
	Right Turn	267	273	102.1%	7.3	256	284	0.3	12.3	2.3	10.5	15.4	B
	Second Right												
	Subtotal	275	280	101.7%	8.7	260	292	0.3	12.8	2.2	11.5	16.3	B
WB	U Turn												
	Second Left												
	Left Turn	121	121	99.6%	4.5	113	127	0.0	36.2	6.4	34.6	49.7	D
	Through	10	9	94.0%	2.0	7	12	0.2	16.3	11.9	25.5	62.5	B
	Right Turn	4	4	97.5%	2.3	1	8	0.1	11.5	13.4	2.6	33.8	B
	Second Right												
	Subtotal	135	134	99.1%	5.0	127	142	0.1	34.2	6.0	33.6	47.7	C
Total		1,344	1,356	100.9%	30.1	1,313	1,397	0.3	17.8	3.2	15.8	24.8	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	3	3	96.7%	2.0	0	7	0.1	3.0	3.3	0.0	15.2	A
	Through												
	Right Turn	70	70	100.3%	1.5	67	72	0.0	7.0	1.8	5.6	10.5	A
	Second Right												
	Subtotal	73	73	100.1%	1.0	72	75	0.0	6.9	1.7	5.5	10.1	A
EB	U Turn												
	Second Left												
	Left Turn	136	135	99.1%	10.8	118	149	0.1	0.5	0.1	0.4	0.8	A
	Through	148	155	104.6%	17.1	133	190	0.6	0.4	0.3	0.3	1.3	A
	Right Turn												
	Second Right												
	Subtotal	284	290	102.0%	19.5	259	323	0.3	0.4	0.2	0.3	0.8	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	65	64	98.3%	3.0	60	68	0.1	9.6	1.8	8.3	12.9	A
	Right Turn	4	4	105.0%	2.8	1	9	0.1	4.3	4.7	4.1	13.8	A
	Second Right												
	Subtotal	69	68	98.7%	1.1	66	70	0.1	9.2	1.6	7.8	11.9	A
Total		426	431	101.1%	19.5	401	463	0.2	2.9	0.3	2.7	3.4	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	87	84	96.9%	7.3	73	95	0.3	40.0	4.2	38.7	47.0	D
	Through	6	6	106.7%	2.6	3	11	0.2	34.2	18.7	32.4	81.9	C
	Right Turn	150	150	100.3%	7.6	139	161	0.0	10.2	4.9	8.2	23.0	B
	Second Right												
	Subtotal	243	241	99.2%	2.6	237	246	0.1	21.0	3.2	20.6	26.4	C
SB	U Turn Second Left												
	Left Turn	66	64	96.7%	4.6	58	73	0.3	36.1	4.0	35.1	44.9	D
	Through	27	28	104.1%	4.9	21	37	0.2	34.3	13.8	41.0	55.5	C
	Right Turn	120	123	102.5%	6.1	111	131	0.3	21.1	10.4	18.3	44.9	C
	Second Right												
	Subtotal	213	215	100.9%	4.0	211	223	0.1	28.0	7.8	26.1	44.7	C
EB	U Turn Second Left												
	Left Turn	20	21	106.0%	5.8	15	32	0.3	42.6	17.7	34.0	67.6	D
	Through	329	328	99.5%	14.5	296	344	0.1	38.8	7.8	37.1	65.6	D
	Right Turn	125	130	103.9%	12.7	113	152	0.4	34.7	9.0	32.6	57.8	C
	Second Right												
	Subtotal	474	479	101.0%	9.9	465	494	0.2	37.7	7.9	34.9	62.3	D
WB	U Turn Second Left												
	Left Turn	408	411	100.7%	20.2	380	453	0.1	30.8	3.6	29.7	36.6	C
	Through	625	634	101.4%	27.2	589	674	0.3	17.2	3.3	14.3	24.4	B
	Right Turn	26	29	109.6%	4.5	21	33	0.5	3.7	0.8	3.6	5.9	A
	Second Right												
	Subtotal	1,059	1,073	101.3%	24.5	1,034	1,101	0.4	22.0	3.1	19.9	27.8	C
Total		1,989	2,008	100.9%	25.7	1,963	2,040	0.4	26.3	3.1	26.3	30.7	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	197	187	94.8%	12.9	165	216	0.7	23.2	4.0	23.1	31.8	C
	Through												
	Right Turn	513	522	101.8%	10.7	499	535	0.4	12.2	1.5	9.8	15.0	B
	Second Right												
	Subtotal	710	709	99.8%	5.6	698	716	0.0	15.2	1.7	13.8	18.2	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	421	427	101.4%	17.4	397	450	0.3	15.1	2.7	15.1	19.0	B
	Right Turn	152	147	96.4%	8.7	134	158	0.4	4.0	0.8	4.1	5.5	A
	Second Right												
	Subtotal	573	574	100.1%	17.3	549	598	0.0	12.2	1.9	12.5	14.7	B
WB	U Turn												
	Second Left												
	Left Turn	387	386	99.7%	26.4	343	438	0.1	34.5	4.7	32.5	41.4	C
	Through	554	559	100.9%	19.8	524	589	0.2	7.3	1.4	6.9	9.4	A
	Right Turn												
	Second Right												
	Subtotal	941	945	100.4%	25.6	903	975	0.1	18.1	2.6	17.8	22.7	B
Total		2,224	2,227	100.1%	22.8	2,178	2,252	0.1	15.7	1.6	15.0	17.5	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	368	370	100.5%	12.2	351	388	0.1	49.1	11.0	49.4	74.0	D
	Through												
	Right Turn	336	330	98.3%	12.9	311	353	0.3	25.0	10.3	22.4	48.9	C
	Second Right												
	Subtotal	704	700	99.5%	6.7	689	711	0.1	37.6	10.7	37.9	61.9	D
EB	U Turn												
	Second Left												
	Left Turn	257	255	99.3%	14.7	230	277	0.1	49.7	7.0	54.5	66.3	D
	Through	361	357	98.9%	17.5	322	376	0.2	9.1	2.1	8.4	14.3	A
	Right Turn												
	Second Right												
	Subtotal	618	612	99.1%	19.4	582	638	0.2	25.9	4.0	26.8	33.8	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	605	616	101.9%	22.2	583	660	0.5	24.0	2.4	24.4	29.8	C
	Right Turn	109	109	100.2%	10.2	97	127	0.0	15.3	3.8	15.2	27.4	B
	Second Right												
	Subtotal	714	725	101.6%	22.9	686	764	0.4	22.7	2.5	23.3	28.7	C
Total		2,036	2,038	100.1%	24.0	2,000	2,081	0.0	29.0	5.0	27.8	41.4	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	57	61	106.5%	3.6	56	67	0.5	53.0	11.4	57.1	80.6	D	
	Through	4	3	77.5%	1.8	1	6	0.5	7.8	19.3	4.4	99.8	A	
	Right Turn	32	30	94.1%	3.6	23	35	0.3	6.6	2.7	5.9	24.3	A	
	Second Right Subtotal	93	94	101.0%	0.7	93	95	0.1	34.4	8.3	39.0	53.4	C	
SB	U Turn Second Left													
	Left Turn	2	2	115.0%	1.6	1	6	0.2	11.3	32.2	13.5	111.5	B	
	Through	23	23	97.8%	3.7	19	30	0.1	54.1	9.5	54.3	93.0	D	
	Right Turn	150	151	100.3%	4.1	140	155	0.0	18.0	9.5	13.3	35.8	B	
	Second Right Subtotal	175	175	100.2%	3.7	171	180	0.0	22.5	9.3	21.3	43.2	C	
EB	U Turn Second Left	20	20	99.5%	4.4	11	26	0.0	92.2	36.0	75.6	199.3	F	
	Left Turn	139	137	98.8%	10.8	123	154	0.1	103.6	37.3	87.1	173.7	F	
	Through	419	420	100.3%	16.0	404	448	0.1	11.8	5.2	7.7	20.8	B	
	Right Turn	151	149	98.6%	8.6	134	162	0.2	7.1	3.4	5.8	13.1	A	
	Second Right Subtotal	729	727	99.7%	20.4	697	759	0.1	31.2	12.6	25.5	56.0	C	
WB	U Turn Second Left													
	Left Turn	55	53	95.8%	7.5	40	63	0.3	66.3	11.5	56.7	94.2	E	
	Through	487	491	100.8%	18.6	460	520	0.2	12.1	2.0	11.2	15.5	B	
	Right Turn	18	17	92.8%	4.9	8	24	0.3	3.4	1.9	4.4	9.6	A	
	Second Right Subtotal	560	560	100.1%	13.4	538	580	0.0	17.7	2.1	18.1	21.4	B	
Total		1,557	1,556	99.9%	25.1	1,523	1,599	0.0	25.7	6.3	22.5	36.8	C	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through												
	Right Turn	4	4	100.0%	0.0	4	4	0.0	5.5	0.3	5.5	6.3	A
	Second Right												
	Subtotal	4	4	100.0%	0.0	4	4	0.0	5.5	0.3	5.5	6.3	A
SB	Through												
	Right Turn												
	Second Right	6	5	83.3%	0.0	5	5	0.4	11.1	7.4	6.4	28.6	B
	Subtotal	6	5	83.3%	0.0	5	5	0.4	11.1	7.4	6.4	28.6	B
NE	Through												
	Right Turn	35	36	102.3%	0.6	35	37	0.1	9.0	1.9	8.8	13.3	A
	Second Right												
	Subtotal	35	36	102.3%	0.6	35	37	0.1	9.0	1.9	8.8	13.3	A
EB	U Turn												
	Second Left												
	Left Turn												
	Through	534	534	100.0%	19.0	501	559	0.0	0.3	0.1	0.4	0.6	A
	Right Turn	11	7	64.5%	2.6	4	11	1.3	0.5	0.1	0.4	0.7	A
	Second Right												
	Subtotal	545	541	99.3%	20.4	509	570	0.2	0.3	0.1	0.4	0.6	A
WB	U Turn												
	Second Left												
	Left Turn	408	410	100.5%	18.8	382	447	0.1	2.6	0.9	2.0	4.4	A
	Through	619	631	101.9%	28.0	584	668	0.5	7.4	1.8	6.0	11.4	A
	Right Turn	26	29	110.4%	4.4	21	33	0.5	3.4	0.9	3.2	5.8	A
	Second Right	14	14	98.6%	3.1	9	18	0.1	1.8	1.7	1.1	8.3	A
	Subtotal	1,067	1,083	101.5%	24.9	1,043	1,110	0.5	5.4	1.2	4.4	7.6	A
Total		1,657	1,669	100.7%	29.5	1,605	1,703	0.3	3.8	0.7	3.2	5.2	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	31	31	99.0%	6.1	21	42	0.1	23.7	9.5	24.2	40.6	C
	Through	39	39	100.5%	3.7	32	44	0.0	23.4	5.6	20.7	40.4	C
	Right Turn	71	70	98.0%	4.5	64	77	0.2	22.2	5.1	19.5	33.7	C
	Second Right												
	Subtotal	141	140	98.9%	1.9	136	142	0.1	23.2	2.2	24.1	28.2	C
SB	U Turn Second Left												
	Left Turn	92	92	100.3%	6.2	84	100	0.0	75.1	58.8	57.5	233.3	E
	Through	35	36	102.0%	5.0	28	44	0.1	63.8	51.4	56.0	204.8	E
	Right Turn	20	18	91.5%	3.8	15	25	0.4	23.4	21.5	7.5	92.3	C
	Second Right												
	Subtotal	147	146	99.5%	3.2	142	153	0.1	65.7	52.4	49.4	206.8	E
EB	U Turn Second Left												
	Left Turn	10	8	76.0%	1.8	5	12	0.8	203.4	83.7	210.0	373.0	F
	Through	455	386	84.9%	11.0	367	404	3.4	235.9	26.2	230.3	291.7	F
	Right Turn	61	51	83.3%	6.3	42	58	1.4	228.3	23.4	218.6	322.5	F
	Second Right												
	Subtotal	526	445	84.5%	15.4	420	472	3.7	234.5	25.3	227.1	289.0	F
WB	U Turn Second Left												
	Left Turn	75	76	101.2%	9.1	60	88	0.1	30.8	4.3	31.5	44.5	C
	Through	282	264	93.5%	15.7	245	292	1.1	8.3	1.3	8.1	12.6	A
	Right Turn	70	72	103.3%	10.8	62	89	0.3	7.2	2.1	7.0	15.4	A
	Second Right												
	Subtotal	427	412	96.4%	18.7	384	437	0.7	12.4	1.4	11.8	14.9	B
Total		1,241	1,142	92.0%	27.5	1,086	1,192	2.9	107.5	11.2	100.3	129.3	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 21		E St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	347	331	95.3%	15.7	316	366	0.9	23.9	2.8	24.8	33.0	C
	Through	116	111	95.9%	7.1	102	122	0.5	25.0	4.5	25.6	34.0	C
	Right Turn	369	340	92.0%	16.7	321	365	1.6	4.7	1.4	4.9	9.7	A
	Second Right												
	Subtotal	832	781	93.9%	23.9	749	828	1.8	15.7	1.9	15.4	21.6	B
SB	U Turn												
	Second Left												
	Left Turn	6	7	110.0%	2.2	3	10	0.2	126.6	72.0	153.8	268.6	F
	Through	271	258	95.1%	7.2	247	265	0.8	176.4	37.0	153.1	229.6	F
	Right Turn	12	11	90.8%	4.6	5	18	0.3	133.9	65.3	85.6	203.2	F
	Second Right												
	Subtotal	289	275	95.2%	8.7	257	287	0.8	173.0	36.2	151.8	226.1	F
EB	U Turn												
	Second Left												
	Left Turn	15	15	98.7%	3.8	9	22	0.1	62.8	25.9	73.7	125.6	E
	Through	32	30	92.8%	4.3	22	36	0.4	73.4	10.5	74.0	110.2	E
	Right Turn	571	503	88.1%	14.3	477	515	2.9	41.7	3.1	40.5	52.6	D
	Second Right												
	Subtotal	618	548	88.6%	12.9	528	565	2.9	44.1	3.2	40.8	53.6	D
WB	U Turn												
	Second Left												
	Left Turn	175	172	98.1%	8.8	157	188	0.3	72.3	9.0	57.7	126.1	E
	Through	68	70	103.1%	8.3	56	81	0.3	40.7	6.4	45.4	57.0	D
	Right Turn	2	2	110.0%	1.5	1	6	0.1	12.6	22.5	6.7	66.7	B
	Second Right												
	Subtotal	245	244	99.6%	5.4	236	253	0.1	63.3	6.4	52.2	106.0	E
Total		1,984	1,848	93.1%	22.0	1,800	1,882	3.1	54.2	6.1	48.1	63.8	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	13	12	89.2%	3.0	8	16	0.4	14.5	15.4	10.1	57.8	B
	Through												
	Right Turn	140	140	100.0%	3.6	135	146	0.0	12.5	13.4	7.7	50.4	B
	Second Right												
	Subtotal	153	152	99.1%	2.0	149	155	0.1	12.7	13.6	7.7	51.2	B
EB	U Turn												
	Second Left												
	Left Turn	192	180	94.0%	11.7	167	204	0.9	1.0	0.6	0.8	2.2	A
	Through	215	196	91.1%	13.2	180	219	1.3	0.7	0.2	0.7	1.7	A
	Right Turn												
	Second Right												
	Subtotal	407	376	92.4%	16.2	356	399	1.6	0.8	0.4	0.7	1.4	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	105	104	99.4%	4.1	98	112	0.1	12.8	6.9	11.1	31.9	B
	Right Turn	11	13	119.1%	3.9	6	19	0.6	8.1	2.1	8.3	37.6	A
	Second Right												
	Subtotal	116	118	101.3%	0.5	117	118	0.1	12.4	6.4	10.9	30.4	B
Total		676	645	95.5%	16.0	624	667	1.2	5.9	4.5	4.1	18.6	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	120	67	55.4%	6.4	60	82	5.5	122.4	13.7	113.1	143.6	F
	Through	17	11	62.4%	3.9	5	18	1.7	100.7	38.2	109.6	139.1	F
	Right Turn	448	259	57.9%	11.8	243	283	10.0	107.8	12.3	102.4	136.1	F
	Second Right												
	Subtotal	585	337	57.5%	12.0	317	355	11.6	110.6	12.6	104.1	137.3	F
SB	U Turn Second Left												
	Left Turn	125	121	96.8%	6.9	110	132	0.4	171.6	111.1	93.3	413.1	F
	Through	20	21	106.5%	4.4	16	27	0.3	56.8	43.3	28.6	168.0	E
	Right Turn	165	162	98.1%	9.0	145	175	0.2	45.7	42.8	21.0	150.0	D
	Second Right												
	Subtotal	310	304	98.1%	13.7	275	318	0.3	97.7	70.8	53.8	253.3	F
EB	U Turn Second Left												
	Left Turn	78	69	88.2%	6.7	59	78	1.1	56.5	4.5	56.6	67.0	E
	Through	827	758	91.6%	15.7	733	781	2.5	49.4	2.5	47.9	54.2	D
	Right Turn	112	105	93.8%	8.2	92	117	0.7	47.3	4.5	45.7	53.6	D
	Second Right												
	Subtotal	1,017	931	91.6%	12.4	912	948	2.7	49.7	2.6	47.7	53.6	D
WB	U Turn Second Left												
	Left Turn	145	150	103.1%	14.9	128	177	0.4	39.8	3.6	38.1	47.1	D
	Through	547	554	101.2%	21.8	524	585	0.3	35.0	23.0	28.2	97.9	D
	Right Turn	60	59	97.5%	4.0	52	65	0.2	1.0	0.3	1.1	2.3	A
	Second Right												
	Subtotal	752	762	101.3%	26.3	722	805	0.3	33.6	17.5	27.4	81.4	C
Total		2,664	2,334	87.6%	24.1	2,305	2,384	6.6	58.9	10.5	49.7	79.1	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Uncontrolled

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	65	65	100.3%	0.8	64	66	0.0	0.4	0.1	0.4	0.9	A
	Second Right												
	Subtotal	65	65	100.3%	0.8	64	66	0.0	0.4	0.1	0.4	0.9	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	328	327	99.7%	1.7	324	330	0.0	1.8	1.9	1.0	7.0	A
	Second Right												
	Subtotal	328	327	99.7%	1.7	324	330	0.0	1.8	1.9	1.0	7.0	A
EB	U Turn												
	Second Left												
	Left Turn												
	Through	921	757	82.2%	19.4	721	782	5.6	0.1	0.0	0.1	0.1	A
	Right Turn	498	400	80.3%	19.9	369	431	4.6	0.3	0.1	0.2	0.7	A
	Second Right												
	Subtotal	1,419	1,158	81.6%	26.3	1,111	1,196	7.3	0.1	0.0	0.1	0.2	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	500	509	101.8%	19.9	477	538	0.4	11.2	17.6	3.3	60.4	B
	Right Turn	443	425	95.9%	13.3	406	447	0.9	1.5	0.3	1.3	2.2	A
	Second Right												
	Subtotal	943	934	99.0%	21.1	901	964	0.3	6.7	9.2	2.5	32.4	A
Total		2,755	2,483	90.1%	21.2	2,431	2,501	5.3	3.0	3.9	1.1	13.9	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	388	382	98.4%	10.6	362	393	0.3	52.1	9.3	42.9	68.9	D
	Through												
	Right Turn	254	258	101.7%	9.0	248	277	0.3	21.7	10.5	18.4	41.8	C
	Second Right												
	Subtotal	642	640	99.7%	5.5	630	648	0.1	40.8	9.5	33.3	58.0	D
EB	U Turn												
	Second Left												
	Left Turn	456	374	82.0%	13.6	353	391	4.0	49.9	2.9	52.4	61.4	D
	Through	530	450	84.9%	11.2	427	460	3.6	9.6	1.7	9.3	14.6	A
	Right Turn												
	Second Right												
	Subtotal	986	824	83.5%	19.6	790	848	5.4	28.1	2.3	28.5	34.9	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	689	677	98.3%	21.9	637	711	0.5	18.0	2.8	16.8	24.8	B
	Right Turn	162	168	103.6%	16.3	144	194	0.5	12.8	3.3	10.3	21.7	B
	Second Right												
	Subtotal	851	845	99.3%	31.0	784	896	0.2	17.0	2.4	15.0	24.0	B
Total		2,479	2,308	93.1%	21.1	2,265	2,345	3.5	27.9	2.0	26.8	33.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	152	150	98.4%	4.2	141	155	0.2	51.5	4.7	51.2	60.8	D	
	Through	19	19	100.5%	4.1	13	27	0.0	53.9	26.8	38.6	112.9	D	
	Right Turn	46	46	100.7%	6.2	37	55	0.0	11.4	6.2	11.6	31.3	B	
	Second Right Subtotal	217	215	99.0%	3.7	210	221	0.1	41.6	6.0	43.2	54.7	D	
SB	U Turn Second Left													
	Left Turn	56	56	100.0%	4.7	48	63	0.0	52.3	11.3	52.5	81.5	D	
	Through	6	7	116.7%	2.7	2	11	0.4	30.0	36.1	43.7	113.2	C	
	Right Turn	83	83	100.1%	4.7	76	90	0.0	8.0	2.4	8.8	26.8	A	
	Second Right Subtotal	145	146	100.8%	2.1	143	149	0.1	27.8	7.1	28.8	41.5	C	
EB	U Turn Second Left	34	36	105.0%	5.4	25	46	0.3	48.2	15.7	48.0	90.8	D	
	Left Turn	157	147	93.7%	10.9	128	165	0.8	52.9	10.2	49.1	73.5	D	
	Through	676	604	89.4%	8.0	590	615	2.8	14.8	4.4	15.2	21.4	B	
	Right Turn	51	46	89.4%	6.2	37	56	0.8	13.6	5.9	14.5	24.7	B	
	Second Right Subtotal	918	833	90.7%	13.4	814	854	2.9	23.5	4.6	22.9	33.4	C	
WB	U Turn Second Left													
	Left Turn	31	32	102.9%	6.4	19	40	0.2	68.9	14.6	62.4	103.2	E	
	Through	582	573	98.4%	27.5	515	610	0.4	28.0	9.5	22.3	50.2	C	
	Right Turn	14	15	110.0%	3.7	9	21	0.4	6.1	5.1	4.2	33.2	A	
	Second Right Subtotal	627	620	98.9%	26.8	567	657	0.3	29.3	9.0	23.9	50.3	C	
Total		1,907	1,813	95.1%	25.8	1,761	1,837	2.2	28.2	4.6	26.7	36.0	C	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Left Turn	2	1	40.0%	1.0	0	3	1.0	5.8	12.8	0.0	52.3	A
	Through												
	Right Turn	15	15	100.0%	1.2	12	16	0.0	7.2	1.7	8.7	13.9	A
	Second Right												
	Subtotal	17	16	92.9%	0.6	15	17	0.3	7.7	2.7	7.7	23.3	A
SB	Left Turn	10	10	97.0%	2.0	6	13	0.1	52.4	34.4	56.3	125.4	F
	Through												
	Right Turn	9	10	112.2%	2.2	7	14	0.4	17.6	10.0	13.1	49.8	C
	Second Right												
	Subtotal	19	20	104.2%	0.9	18	21	0.2	35.5	19.4	37.1	77.6	E
NE	Through												
	Right Turn	16	16	99.4%	0.3	15	16	0.0	8.9	2.3	11.0	21.1	A
	Second Right												
	Subtotal	16	16	99.4%	0.3	15	16	0.0	8.9	2.3	11.0	21.1	A
EB	U Turn												
	Second Left												
	Left Turn	2	2	95.0%	1.0	1	4	0.1	13.1	28.5	1.5	114.1	B
	Through	1,378	1,117	81.1%	24.3	1,079	1,153	7.4	0.4	0.1	0.5	0.8	A
	Right Turn	20	22	110.0%	5.6	15	34	0.4	0.2	0.3	0.2	1.7	A
	Second Right												
	Subtotal	1,400	1,141	81.5%	21.8	1,105	1,169	7.3	0.5	0.1	0.5	1.0	A
WB	U Turn												
	Second Left	18	22	122.2%	5.6	15	34	0.9	0.2	0.3	0.2	1.7	A
	Left Turn	11	17	155.5%	3.6	12	23	1.6	12.7	5.9	12.8	51.5	B
	Through	741	751	101.3%	25.1	714	789	0.4	10.4	5.5	8.8	23.0	B
	Right Turn	58	56	96.2%	7.4	49	67	0.3	4.8	2.9	4.4	9.9	A
	Second Right												
	Subtotal	828	846	102.2%	25.0	804	879	0.6	9.8	5.0	8.8	21.2	A
Total		2,280	2,038	89.4%	19.9	2,001	2,070	5.2	5.1	2.3	4.4	10.6	A

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	31	31	100.6%	5.1	23	39	0.0	22.9	9.4	23.2	37.9	C
	Through	39	42	106.7%	3.1	35	47	0.4	23.1	5.8	23.7	72.5	C
	Right Turn	71	68	95.5%	5.1	60	78	0.4	25.9	8.6	27.4	147.6	C
	Second Right Subtotal	141	141	99.7%	1.3	139	143	0.0	25.3	4.7	23.7	87.1	C
SB	U Turn Second Left												
	Left Turn	92	94	102.2%	5.4	86	101	0.2	116.8	51.2	94.5	319.1	F
	Through	35	34	96.3%	4.5	24	38	0.2	100.8	62.1	90.4	256.2	F
	Right Turn	20	20	99.5%	4.1	14	25	0.0	58.2	55.4	42.5	253.0	E
	Second Right Subtotal	147	148	100.4%	5.0	141	159	0.0	105.4	52.5	90.5	285.6	F
EB	U Turn Second Left												
	Left Turn	10	8	84.0%	3.6	5	16	0.5	268.6	58.2	217.9	410.1	F
	Through	455	337	74.0%	34.0	298	388	5.9	290.7	72.4	270.5	643.3	F
	Right Turn	61	48	78.0%	8.4	35	58	1.8	270.6	75.8	266.9	605.3	F
	Second Right Subtotal	526	393	74.7%	42.3	341	445	6.2	287.6	71.3	270.1	606.3	F
WB	U Turn Second Left												
	Left Turn	75	75	100.3%	8.1	61	85	0.0	28.1	3.4	27.5	39.4	C
	Through	282	270	95.7%	18.5	233	293	0.7	11.3	2.6	11.1	17.5	B
	Right Turn	70	76	109.0%	8.1	64	93	0.7	8.7	2.1	8.3	15.7	A
	Second Right Subtotal	427	421	98.7%	19.1	384	448	0.3	13.4	2.0	14.2	18.3	B
Total		1,241	1,102	88.8%	38.3	1,062	1,160	4.1	124.6	22.0	114.8	174.6	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	347	338	97.4%	22.2	299	384	0.5	22.7	6.8	17.2	32.5	C
	Through	116	110	94.7%	7.9	99	121	0.6	22.1	6.9	18.7	33.3	C
	Right Turn	369	372	100.7%	13.4	350	388	0.1	6.3	3.0	4.5	9.9	A
	Second Right												
	Subtotal	832	819	98.5%	25.2	781	858	0.4	15.1	5.1	11.6	21.6	B
SB	U Turn												
	Second Left												
	Left Turn	6	6	95.0%	2.7	1	10	0.1	105.2	119.3	94.4	373.6	F
	Through	271	240	88.6%	35.7	180	276	1.9	202.2	110.7	77.1	613.2	F
	Right Turn	12	11	94.2%	4.0	6	17	0.2	138.3	78.6	95.1	522.4	F
	Second Right												
	Subtotal	289	257	89.0%	38.5	194	298	1.9	194.1	98.2	78.4	564.5	F
EB	U Turn												
	Second Left												
	Left Turn	15	12	81.3%	2.5	8	16	0.8	65.0	18.3	61.3	112.2	E
	Through	32	25	76.9%	5.9	15	33	1.4	76.3	18.7	65.4	119.3	E
	Right Turn	571	466	81.6%	37.5	416	522	4.6	53.2	26.0	41.3	120.4	D
	Second Right												
	Subtotal	618	503	81.4%	39.9	453	565	4.9	54.9	24.3	42.6	117.9	D
WB	U Turn												
	Second Left												
	Left Turn	175	166	95.0%	9.4	153	180	0.7	84.7	42.3	68.1	179.5	F
	Through	68	72	106.5%	8.4	56	87	0.5	48.3	11.6	42.8	72.2	D
	Right Turn	2	3	140.0%	1.6	1	6	0.5	15.6	25.2	0.8	82.1	B
	Second Right												
	Subtotal	245	242	98.6%	6.7	233	253	0.2	72.7	32.1	59.8	148.1	E
Total		1,984	1,821	91.8%	27.8	1,792	1,871	3.7	54.4	9.2	46.9	70.1	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 22

F St/1st St

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	13	13	97.7%	1.6	10	15	0.1	35.0	46.5	12.9	125.6	E
	Through												
	Right Turn	140	139	99.3%	2.5	135	144	0.1	30.9	52.1	7.4	172.0	D
	Second Right												
	Subtotal	153	152	99.2%	1.6	149	154	0.1	31.1	51.1	7.7	167.9	D
EB	U Turn												
	Second Left												
	Left Turn	192	194	101.2%	7.5	184	212	0.2	0.6	0.3	0.5	1.4	A
	Through	215	208	96.5%	9.6	197	226	0.5	0.6	0.3	0.3	1.8	A
	Right Turn												
	Second Right												
	Subtotal	407	402	98.7%	10.7	389	416	0.3	0.6	0.3	0.4	1.5	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	105	105	100.3%	4.4	99	112	0.0	31.0	47.2	12.2	163.2	D
	Right Turn	11	12	105.5%	3.9	6	17	0.2	23.2	37.0	7.0	124.5	C
	Second Right												
	Subtotal	116	117	100.8%	2.5	112	119	0.1	30.1	46.2	11.8	159.2	D
Total		676	670	99.2%	9.8	658	689	0.2	12.5	18.7	4.4	63.4	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	122	100	82.0%	16.3	77	125	2.1	141.8	18.8	135.6	195.3	F
	Through	17	13	75.3%	3.5	9	20	1.1	133.1	19.5	139.4	222.0	F
	Right Turn	448	364	81.3%	12.9	347	383	4.1	167.6	18.1	166.5	228.0	F
	Second Right												
	Subtotal	587	477	81.3%	25.6	438	517	4.8	161.8	17.2	160.2	219.4	F
SB	U Turn Second Left												
	Left Turn	135	133	98.5%	8.3	117	144	0.2	48.7	7.2	51.7	66.5	D
	Through	20	20	101.0%	3.3	15	26	0.0	70.2	32.0	59.6	134.0	E
	Right Turn	165	166	100.5%	9.4	155	181	0.1	32.9	23.0	25.8	89.5	C
	Second Right												
	Subtotal	320	319	99.7%	4.1	312	324	0.1	42.3	16.7	36.3	82.1	D
EB	U Turn Second Left												
	Left Turn	80	70	86.9%	7.9	56	82	1.2	72.3	13.9	71.5	103.6	E
	Through	825	711	86.2%	21.5	678	743	4.1	56.2	9.6	52.2	87.4	E
	Right Turn	112	94	83.8%	9.8	78	107	1.8	54.4	9.8	54.4	84.9	D
	Second Right												
	Subtotal	1,017	874	85.9%	19.4	838	907	4.6	57.1	9.6	54.8	88.6	E
WB	U Turn Second Left												
	Left Turn	174	168	96.3%	14.3	140	193	0.5	44.8	3.4	47.2	60.5	D
	Through	545	549	100.8%	16.1	529	568	0.2	16.8	2.2	18.6	23.6	B
	Right Turn	60	59	97.5%	7.8	46	73	0.2	4.6	1.5	3.7	7.9	A
	Second Right												
	Subtotal	779	775	99.5%	23.8	744	828	0.1	22.1	2.5	23.3	27.6	C
Total		2,703	2,446	90.5%	37.1	2,402	2,523	5.1	64.6	3.9	63.3	72.4	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	65	67	102.8%	8.2	55	83	0.2	28.2	3.2	29.6	37.0	C
	Through												
	Right Turn	328	328	100.0%	7.4	318	342	0.0	9.3	1.6	9.6	12.9	A
	Second Right												
	Subtotal	393	395	100.5%	3.4	390	401	0.1	12.5	1.1	12.2	16.0	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	921	809	87.8%	15.0	779	830	3.8	11.7	1.2	10.4	14.5	B
	Right Turn	498	414	83.1%	19.2	385	442	3.9	6.7	1.9	6.5	18.0	A
	Second Right												
	Subtotal	1,419	1,223	86.2%	22.2	1,176	1,250	5.4	10.0	1.1	9.2	13.4	B
WB	U Turn												
	Second Left												
	Left Turn	443	443	100.0%	26.8	402	484	0.0	33.5	6.6	26.9	44.3	C
	Through	500	501	100.1%	23.3	463	534	0.0	3.4	1.0	3.3	5.2	A
	Right Turn												
	Second Right												
	Subtotal	943	943	100.0%	22.9	905	986	0.0	17.4	3.1	14.6	23.2	B
Total		2,755	2,561	93.0%	36.7	2,518	2,631	3.8	13.1	1.5	11.9	17.1	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	388	384	98.8%	11.8	366	402	0.2	50.6	7.5	46.2	63.5	D
	Through												
	Right Turn	254	254	100.1%	11.5	238	277	0.0	22.0	4.7	18.2	29.9	C
	Second Right												
	Subtotal	642	638	99.3%	6.8	627	647	0.2	38.5	5.1	34.4	48.0	D
EB	U Turn												
	Second Left												
	Left Turn	456	398	87.2%	18.7	366	428	2.8	50.2	3.7	48.3	60.2	D
	Through	530	476	89.8%	21.5	451	522	2.4	9.0	1.3	8.5	10.2	A
	Right Turn												
	Second Right												
	Subtotal	986	874	88.6%	17.0	831	888	3.7	28.0	2.2	26.6	32.3	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	689	690	100.2%	18.8	667	731	0.1	28.7	2.3	28.4	31.8	C
	Right Turn	162	162	100.1%	11.0	147	182	0.0	20.6	2.2	20.3	24.3	C
	Second Right												
	Subtotal	851	853	100.2%	22.5	818	891	0.1	27.2	2.1	26.9	30.1	C
Total		2,479	2,364	95.4%	33.0	2,286	2,405	2.3	30.4	1.6	29.1	34.1	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	152	155	101.8%	5.3	143	161	0.2	51.8	5.8	52.3	73.9	D	
	Through	19	20	102.6%	3.8	14	26	0.1	53.0	12.2	58.2	100.4	D	
	Right Turn	46	42	91.7%	3.8	38	49	0.6	17.9	5.8	17.1	33.6	B	
	Second Right Subtotal	217	217	99.8%	1.4	215	219	0.0	45.2	5.9	49.4	62.2	D	
SB	U Turn Second Left													
	Left Turn	56	56	100.7%	5.2	48	66	0.1	57.6	12.0	53.2	77.3	E	
	Through	6	5	90.0%	1.5	3	8	0.3	47.6	34.2	85.9	121.7	D	
	Right Turn	83	85	102.4%	5.4	74	92	0.2	11.2	6.0	10.2	31.0	B	
	Second Right Subtotal	145	147	101.2%	1.2	145	149	0.1	32.0	7.1	28.9	41.7	C	
EB	U Turn Second Left	34	34	100.9%	4.3	28	41	0.1	140.0	43.2	108.0	221.8	F	
	Left Turn	157	147	93.4%	7.0	136	158	0.8	139.1	42.1	94.9	210.2	F	
	Through	676	633	93.7%	18.7	614	678	1.7	9.1	1.8	9.2	17.2	A	
	Right Turn	51	46	90.4%	6.6	37	54	0.7	7.0	4.7	5.1	21.4	A	
	Second Right Subtotal	918	860	93.7%	23.4	832	918	1.9	35.2	9.3	24.0	63.8	D	
WB	U Turn Second Left													
	Left Turn	31	28	89.4%	5.1	18	37	0.6	59.7	20.1	52.6	93.6	E	
	Through	582	575	98.7%	22.8	538	610	0.3	12.4	1.7	12.6	18.1	B	
	Right Turn	14	14	99.3%	3.1	8	17	0.0	2.9	1.3	3.1	10.2	A	
	Second Right Subtotal	627	616	98.3%	22.3	584	657	0.4	14.3	2.2	13.7	21.0	B	
Total		1,907	1,840	96.5%	37.7	1,782	1,919	1.5	29.4	4.8	23.8	42.2	C	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Existing Alternative 2 Mitigated
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through	15	16	104.7%	0.5	15	16	0.2	5.8	0.4	5.8	7.8	A
	Right Turn												
	Second Right												
	Subtotal	15	16	104.7%	0.5	15	16	0.2	5.8	0.4	5.8	7.8	A
SB	Through	9	8	88.9%	0.0	8	8	0.3	14.4	7.5	18.0	58.1	B
	Right Turn												
	Second Right												
	Subtotal	9	8	88.9%	0.0	8	8	0.3	14.4	7.5	18.0	58.1	B
NE	Through	16	16	100.0%	0.5	15	17	0.0	17.6	4.4	21.1	47.9	C
	Right Turn												
	Second Right												
	Subtotal	16	16	100.0%	0.5	15	17	0.0	17.6	4.4	21.1	47.9	C
EB	U Turn	1,388	1,190	85.8%	22.9	1,148	1,217	5.5	0.6	0.1	0.7	2.0	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	20	19	96.5%	5.0	15	32	0.2	0.9	0.6	0.7	2.6	A	
	Subtotal	1,408	1,210	85.9%	20.8	1,180	1,233	5.5	0.6	0.1	0.7	2.0	A
WB	U Turn	174	167	96.1%	14.2	141	193	0.5	1.0	0.3	1.0	3.3	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal	832	830	99.7%	24.0	800	874	0.1	6.2	1.8	6.0	8.3	A
	Total	2,280	2,079	91.2%	27.9	2,050	2,146	4.3	3.1	0.7	2.8	4.0	A

A.4 – VISSIM CALCULATION SHEETS – CUMULATIVE NO PROJECT



Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	10	12	117.0%	2.2	9	15	0.5	29.0	9.2	12.8	46.0	C
	Through	20	20	101.0%	4.5	13	27	0.0	40.0	6.9	25.4	48.1	D
	Right Turn	20	20	99.5%	3.2	14	23	0.0	11.1	6.0	6.7	22.5	B
	Second Right Subtotal	50	52	103.6%	1.1	50	54	0.3	27.1	4.2	19.8	32.6	C
SB	U Turn Second Left												
	Left Turn	120	117	97.7%	7.3	103	128	0.3	79.2	17.7	61.3	126.2	E
	Through	30	30	100.3%	7.1	18	42	0.0	55.1	20.3	36.7	109.8	E
	Right Turn	20	21	103.5%	4.0	13	25	0.2	30.0	12.3	20.2	59.0	C
	Second Right Subtotal	170	168	98.8%	1.9	165	171	0.2	69.1	16.9	54.1	114.2	E
EB	U Turn Second Left												
	Left Turn	20	18	88.5%	4.7	9	24	0.5	40.8	7.3	29.4	49.3	D
	Through	250	254	101.7%	4.7	245	260	0.3	21.9	12.4	15.4	56.3	C
	Right Turn	30	32	105.3%	5.2	23	40	0.3	12.2	7.9	5.7	32.5	B
	Second Right Subtotal	300	304	101.2%	2.7	299	307	0.2	22.1	10.9	16.6	52.3	C
WB	U Turn Second Left												
	Left Turn	30	29	95.7%	5.0	21	38	0.2	46.1	5.8	38.1	53.3	D
	Through	700	637	91.0%	22.2	594	666	2.4	10.0	1.9	8.1	13.3	B
	Right Turn	60	71	118.8%	6.8	60	82	1.4	7.9	1.8	5.8	11.8	A
	Second Right Subtotal	790	737	93.3%	22.4	702	769	1.9	11.2	2.0	9.0	14.3	B
Total		1,310	1,260	96.2%	22.6	1,226	1,292	1.4	22.2	5.1	17.8	36.2	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	650	594	91.4%	16.3	561	612	2.3	30.1	3.1	25.7	36.4	C
	Through	120	116	96.8%	8.3	105	129	0.4	29.1	4.2	19.8	34.3	C
	Right Turn	440	395	89.8%	17.0	373	426	2.2	13.1	1.9	10.5	15.7	B
	Second Right Subtotal	1,210	1,105	91.3%	19.7	1,075	1,138	3.1	23.9	2.2	20.6	28.4	C
SB	U Turn Second Left												
	Left Turn	10	11	107.0%	4.8	2	18	0.2	42.2	18.8	20.7	75.8	D
	Through	190	184	96.9%	6.5	176	192	0.4	83.7	12.7	71.8	114.0	F
	Right Turn	20	24	118.0%	4.1	18	30	0.8	33.2	5.8	25.1	40.8	C
	Second Right Subtotal	220	219	99.3%	3.7	209	222	0.1	76.1	11.4	65.9	104.9	E
EB	U Turn Second Left												
	Left Turn	10	9	94.0%	2.7	6	13	0.2	60.3	48.0	23.5	165.0	E
	Through	30	29	97.7%	4.4	22	37	0.1	75.8	12.8	57.4	94.2	E
	Right Turn	350	354	101.2%	12.6	324	369	0.2	19.9	3.7	15.6	28.0	B
	Second Right Subtotal	390	393	100.8%	12.6	367	408	0.2	25.2	3.0	20.8	29.8	C
WB	U Turn Second Left												
	Left Turn	210	205	97.5%	10.7	192	229	0.4	88.9	12.1	74.1	106.1	F
	Through	120	121	101.1%	11.8	107	142	0.1	74.6	6.2	63.7	83.1	E
	Right Turn	20	21	102.5%	3.7	14	26	0.1	33.2	6.1	21.3	44.4	C
	Second Right Subtotal	350	347	99.0%	5.3	341	354	0.2	80.8	8.7	69.0	93.6	F
Total		2,170	2,063	95.1%	26.5	2,016	2,099	2.3	39.2	2.3	36.5	44.3	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	10	10	96.0%	3.4	4	15	0.1	19.2	8.8	7.1	31.9	B
	Through												
	Right Turn	190	188	99.2%	2.8	185	194	0.1	32.1	19.5	13.1	68.5	C
	Second Right												
	Subtotal	200	198	99.0%	2.0	194	201	0.1	31.5	18.9	13.4	67.1	C
EB	U Turn												
	Second Left												
	Left Turn	270	246	91.0%	11.3	231	265	1.5	1.6	0.7	0.9	2.9	A
	Through	210	189	90.1%	11.3	168	205	1.5	1.2	0.6	0.6	2.2	A
	Right Turn												
	Second Right												
	Subtotal	480	435	90.6%	20.1	400	470	2.1	1.4	0.7	0.8	2.5	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	160	161	100.8%	2.0	157	164	0.1	30.7	10.1	18.7	44.9	C
	Right Turn	10	10	100.0%	2.8	5	15	0.0	19.0	12.5	9.0	49.5	B
	Second Right												
	Subtotal	170	171	100.7%	1.6	168	174	0.1	30.0	10.1	18.1	45.0	C
Total		850	804	94.6%	20.4	770	836	1.6	14.9	7.1	7.9	27.8	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	50	49	97.8%	5.5	42	56	0.2	82.7	14.8	68.3	114.1	F	
	Through	10	9	91.0%	2.3	6	14	0.3	30.3	11.5	12.9	49.7	C	
	Right Turn	60	61	102.0%	3.7	56	67	0.2	69.2	17.0	42.4	98.9	E	
	Second Right Subtotal	120	119	99.3%	3.5	114	125	0.1	72.1	14.4	52.1	100.7	E	
SB	U Turn Second Left													
	Left Turn	140	130	92.7%	11.4	112	144	0.9	153.5	24.0	131.8	204.3	F	
	Through	30	28	94.7%	4.9	22	38	0.3	92.4	17.9	65.5	115.0	F	
	Right Turn	130	116	89.5%	7.4	100	126	1.2	180.2	25.9	144.0	228.8	F	
	Second Right Subtotal	300	275	91.5%	16.4	252	300	1.5	158.8	22.7	133.1	204.3	F	
EB	U Turn Second Left													
	Left Turn	60	58	96.2%	8.3	42	74	0.3	65.2	9.5	49.9	78.5	E	
	Through	630	623	98.9%	16.5	591	640	0.3	23.8	2.8	19.8	28.0	C	
	Right Turn	60	61	101.3%	6.1	52	75	0.1	19.9	3.6	16.3	25.8	B	
	Second Right Subtotal	750	742	98.9%	15.9	711	764	0.3	26.7	3.3	22.0	31.3	C	
WB	U Turn Second Left													
	Left Turn	200	194	97.0%	14.9	170	218	0.4	91.5	8.5	76.8	104.4	F	
	Through	1,030	937	90.9%	15.4	912	958	3.0	50.2	1.5	48.1	52.9	D	
	Right Turn	30	30	99.3%	6.1	22	40	0.0	20.2	4.5	12.2	25.7	C	
	Second Right Subtotal	1,260	1,161	92.1%	18.4	1,136	1,192	2.9	56.4	2.1	53.6	60.5	E	
Total		2,430	2,296	94.5%	31.8	2,243	2,336	2.8	59.8	2.4	55.6	63.4	E	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	250	249	99.4%	1.5	246	250	0.1	0.9	0.1	0.7	1.1	A
	Second Right												
	Subtotal	250	249	99.4%	1.5	246	250	0.1	0.9	0.1	0.7	1.1	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	770	686	89.0%	19.6	652	721	3.1	181.8	16.5	166.4	214.4	F
	Second Right												
	Subtotal	770	686	89.0%	19.6	652	721	3.1	181.8	16.5	166.4	214.4	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	670	658	98.3%	28.7	615	710	0.5	0.1	0.0	0.1	0.1	A
	Right Turn	190	186	97.8%	17.4	152	202	0.3	0.2	0.0	0.2	0.3	A
	Second Right												
	Subtotal	860	844	98.2%	25.2	812	874	0.5	0.1	0.0	0.1	0.2	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	500	485	97.0%	19.0	459	524	0.7	39.9	6.7	31.5	50.0	D
	Right Turn	870	847	97.3%	24.0	804	881	0.8	6.0	0.5	5.4	6.7	A
	Second Right												
	Subtotal	1,370	1,332	97.2%	29.1	1,295	1,405	1.0	18.4	2.6	15.1	22.0	B
Total		3,250	3,110	95.7%	51.5	3,032	3,182	2.5	48.0	4.3	44.2	56.6	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	830	748	90.1%	11.8	730	762	2.9	122.7	3.2	116.6	126.3	F
	Through												
	Right Turn	260	241	92.8%	17.1	204	261	1.2	98.6	4.7	91.4	106.0	F
	Second Right												
	Subtotal	1,090	989	90.8%	14.3	966	1,020	3.1	116.8	3.1	112.0	120.8	F
EB	U Turn												
	Second Left												
	Left Turn	340	330	97.1%	23.0	290	359	0.5	87.4	3.0	80.8	91.7	F
	Through	580	578	99.6%	21.9	522	597	0.1	59.3	4.4	53.3	65.2	E
	Right Turn												
	Second Right												
	Subtotal	920	908	98.7%	29.9	865	953	0.4	69.5	3.4	64.2	74.8	E
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,110	1,092	98.4%	27.7	1,057	1,140	0.5	59.0	2.5	55.0	62.8	E
	Right Turn	100	94	94.0%	11.1	75	104	0.6	47.9	4.2	42.4	55.1	D
	Second Right												
	Subtotal	1,210	1,186	98.0%	22.5	1,161	1,232	0.7	58.1	2.2	54.6	61.9	E
Total		3,220	3,083	95.7%	29.5	3,041	3,136	2.4	80.3	1.7	78.8	83.6	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	70	70	100.4%	7.7	56	82	0.0	73.0	6.6	63.7	82.6	E	
	Through	10	11	109.0%	2.6	7	15	0.3	27.1	10.3	11.3	42.3	C	
	Right Turn	50	47	93.4%	7.0	37	55	0.5	21.1	4.7	15.6	30.6	C	
	Second Right Subtotal	130	128	98.4%	3.0	123	132	0.2	50.4	4.9	41.6	56.5	D	
SB	U Turn Second Left													
	Left Turn	20	18	91.0%	3.9	12	23	0.4	53.5	6.8	38.9	61.8	D	
	Through	30	29	95.0%	5.8	21	37	0.3	73.7	8.3	59.1	82.4	E	
	Right Turn	320	309	96.4%	11.9	289	324	0.6	148.9	35.1	108.6	205.1	F	
	Second Right Subtotal	370	355	96.0%	12.4	336	371	0.8	137.9	30.1	102.9	185.2	F	
EB	U Turn Second Left	20	21	104.5%	3.0	16	26	0.2	38.2	6.2	27.7	44.4	D	
	Left Turn	240	226	94.3%	15.9	206	255	0.9	74.4	3.9	67.8	79.4	E	
	Through	970	914	94.2%	21.5	884	949	1.8	29.8	0.8	28.7	31.0	C	
	Right Turn	180	167	92.8%	8.7	155	180	1.0	34.1	4.7	26.8	39.5	C	
	Second Right Subtotal	1,410	1,328	94.2%	23.7	1,279	1,364	2.2	38.1	1.3	36.0	40.3	D	
WB	U Turn Second Left													
	Left Turn	60	57	94.2%	9.3	42	69	0.5	122.4	25.4	82.6	158.4	F	
	Through	800	775	96.8%	19.7	747	804	0.9	104.8	16.9	70.6	124.1	F	
	Right Turn	150	144	96.0%	15.8	124	168	0.5	69.7	15.2	34.5	88.8	E	
	Second Right Subtotal	1,010	975	96.5%	17.6	940	995	1.1	100.8	16.3	66.3	120.5	F	
Total		2,920	2,786	95.4%	24.7	2,739	2,832	2.5	73.3	6.2	64.5	83.0	E	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through												
	Right Turn	10	9	91.0%	0.3	9	10	0.3	9.0	1.2	7.5	10.7	A
	Second Right												
	Subtotal	10	9	91.0%	0.3	9	10	0.3	9.0	1.2	7.5	10.7	A
SB	Through												
	Right Turn	10	9	89.0%	0.3	8	9	0.4	15.3	2.8	11.7	20.8	C
	Second Right												
	Subtotal	10	9	89.0%	0.3	8	9	0.4	15.3	2.8	11.7	20.8	C
NE	Through												
	Right Turn	60	60	99.7%	0.6	59	61	0.0	12.8	1.1	11.2	14.4	B
	Second Right												
	Subtotal	60	60	99.7%	0.6	59	61	0.0	12.8	1.1	11.2	14.4	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	790	775	98.1%	25.0	742	805	0.5	0.7	0.1	0.6	0.8	A
	Right Turn	40	40	100.8%	6.1	31	48	0.0	0.5	0.3	0.3	1.1	A
	Second Right												
	Subtotal	830	815	98.2%	21.5	781	840	0.5	0.7	0.1	0.6	0.9	A
WB	U Turn												
	Second Left												
	Left Turn	200	195	97.3%	15.1	170	217	0.4	24.7	7.5	12.1	39.4	C
	Through	1,050	959	91.3%	13.6	931	978	2.9	34.0	1.1	32.4	36.0	D
	Right Turn	20	17	87.0%	5.0	10	26	0.6	16.5	4.2	12.2	23.8	C
	Second Right												
	Subtotal	1,270	1,171	92.2%	18.9	1,143	1,202	2.8	32.2	1.6	30.6	35.8	D
Total		2,180	2,064	94.7%	35.5	2,011	2,105	2.5	19.1	1.0	18.0	21.3	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	40	42	104.5%	7.1	32	54	0.3	56.8	7.5	47.1	71.2	E	
	Through	60	57	95.5%	6.8	44	65	0.4	68.2	14.9	55.0	107.3	E	
	Right Turn	70	62	87.9%	3.9	57	67	1.0	34.3	8.5	25.4	55.7	C	
	Second Right Subtotal	170	161	94.5%	2.8	156	164	0.7	52.4	9.9	41.7	78.5	D	
SB	U Turn Second Left													
	Left Turn	100	55	54.7%	14.8	29	76	5.2	146.2	43.4	92.6	206.9	F	
	Through	60	33	55.3%	13.9	17	66	3.9	105.4	37.0	50.2	163.4	F	
	Right Turn	30	15	48.7%	7.8	5	26	3.3	152.1	341.9	19.9	1123.5	F	
	Second Right Subtotal	190	103	53.9%	33.0	51	166	7.2	131.6	32.9	80.9	179.5	F	
EB	U Turn Second Left													
	Left Turn	10	9	92.0%	1.9	7	13	0.3	33.4	9.6	22.8	53.1	C	
	Through	600	491	81.8%	35.8	403	530	4.7	176.2	29.8	132.0	242.5	F	
	Right Turn	70	57	80.7%	8.8	43	69	1.7	103.4	14.2	85.6	138.2	F	
	Second Right Subtotal	680	556	81.8%	38.5	463	590	5.0	166.5	27.1	126.9	226.8	F	
WB	U Turn Second Left													
	Left Turn	100	86	86.2%	10.4	73	111	1.4	83.9	4.7	74.3	91.4	F	
	Through	460	386	83.9%	14.2	351	402	3.6	15.6	3.1	12.2	20.7	B	
	Right Turn	110	112	101.5%	7.5	100	123	0.2	13.3	2.2	9.3	17.2	B	
	Second Right Subtotal	670	584	87.1%	23.5	546	626	3.4	25.2	3.2	21.1	30.5	C	
Total		1,710	1,403	82.1%	31.9	1,334	1,454	7.8	91.5	10.8	78.3	116.3	F	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	430	370	85.9%	18.2	334	401	3.0	42.0	3.3	36.1	47.6	D
	Through	140	118	84.2%	6.0	107	127	1.9	40.9	4.0	35.3	47.9	D
	Right Turn	460	392	85.1%	19.7	362	421	3.3	20.3	3.1	16.7	25.8	C
	Second Right												
	Subtotal	1,030	879	85.3%	16.8	849	907	4.9	32.2	2.5	27.7	35.7	C
SB	U Turn Second Left												
	Left Turn	10	7	67.0%	2.5	3	10	1.1	76.0	65.7	14.2	177.3	E
	Through	500	288	57.6%	23.8	250	321	10.7	167.4	19.5	130.4	189.7	F
	Right Turn	40	24	60.8%	4.4	17	30	2.8	63.2	15.4	38.7	88.3	E
	Second Right												
	Subtotal	550	319	58.0%	26.6	276	354	11.1	157.6	18.0	122.4	180.3	F
EB	U Turn Second Left												
	Left Turn	20	15	76.0%	4.3	10	25	1.1	53.3	28.9	16.6	120.1	D
	Through	40	27	68.0%	5.1	20	36	2.2	69.1	13.1	44.5	93.9	E
	Right Turn	710	568	80.0%	27.7	500	596	5.6	28.6	2.5	25.7	32.3	C
	Second Right												
	Subtotal	770	611	79.3%	25.7	550	635	6.1	31.1	3.0	26.8	36.6	C
WB	U Turn Second Left												
	Left Turn	210	199	95.0%	8.6	183	213	0.7	114.7	7.0	104.9	126.2	F
	Through	200	191	95.5%	11.5	171	209	0.6	109.9	8.3	99.4	127.4	F
	Right Turn	10	8	84.0%	2.7	5	13	0.5	49.3	30.6	18.2	95.6	D
	Second Right												
	Subtotal	420	399	95.0%	12.1	381	416	1.0	111.0	6.3	104.7	123.7	F
Total		2,770	2,207	79.7%	26.1	2,159	2,250	11.3	64.1	3.0	60.4	69.2	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	60	42	70.5%	8.4	31	54	2.5	107.8	17.1	89.4	136.1	F
	Through												
	Right Turn	250	180	72.2%	8.6	166	192	4.7	215.4	9.5	202.3	226.8	F
	Second Right												
	Subtotal	310	223	71.8%	8.7	213	238	5.3	195.6	9.1	182.6	207.4	F
EB	U Turn												
	Second Left												
	Left Turn	210	181	86.0%	18.2	145	208	2.1	5.3	2.4	1.5	9.4	A
	Through	300	245	81.6%	15.8	220	273	3.3	4.9	1.6	2.2	7.6	A
	Right Turn												
	Second Right												
	Subtotal	510	425	83.4%	24.6	394	467	3.9	5.1	1.9	1.9	8.2	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	170	217	127.8%	10.5	193	230	3.4	171.1	11.4	155.8	193.7	F
	Right Turn	20	23	114.5%	5.3	17	34	0.6	62.4	13.3	43.5	90.3	E
	Second Right												
	Subtotal	190	240	126.4%	12.0	214	257	3.4	160.9	10.0	147.5	180.8	F
Total		1,010	888	87.9%	22.2	860	935	4.0	94.9	3.1	89.2	98.4	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	70	46	65.3%	4.5	39	53	3.2	67.6	8.6	56.3	88.5	E
	Through	20	12	60.0%	2.8	7	17	2.0	40.9	18.4	22.3	69.4	D
	Right Turn	100	64	64.2%	4.6	57	70	4.0	56.1	9.3	45.5	76.8	E
	Second Right Subtotal	190	122	64.2%	3.0	118	126	5.5	59.1	8.4	50.2	79.4	E
SB	U Turn Second Left												
	Left Turn	180	147	81.4%	8.0	132	162	2.6	200.0	10.9	178.6	214.3	F
	Through	20	16	82.0%	5.1	11	26	0.8	57.4	20.6	36.1	103.9	E
	Right Turn	190	147	77.4%	3.7	141	154	3.3	209.4	10.0	189.1	225.4	F
	Second Right Subtotal	390	310	79.5%	11.7	293	328	4.3	197.2	7.7	184.7	207.9	F
EB	U Turn Second Left												
	Left Turn	100	74	73.9%	7.0	60	84	2.8	67.8	4.3	59.2	73.0	E
	Through	1,280	955	74.6%	28.7	900	999	9.7	22.9	3.2	16.8	27.1	C
	Right Turn	40	30	73.8%	5.6	22	40	1.8	18.7	5.6	12.3	30.8	B
	Second Right Subtotal	1,420	1,058	74.5%	24.3	1,017	1,099	10.3	25.9	3.2	19.7	30.1	C
WB	U Turn Second Left												
	Left Turn	90	77	85.1%	6.5	65	87	1.5	112.5	13.4	90.1	135.7	F
	Through	770	685	88.9%	13.5	660	706	3.2	56.9	8.3	40.5	71.2	E
	Right Turn	120	100	83.7%	8.9	88	117	1.9	18.5	3.9	12.3	25.6	B
	Second Right Subtotal	980	862	87.9%	21.1	839	898	3.9	57.4	6.8	44.5	68.8	E
Total		2,980	2,352	78.9%	35.3	2,286	2,397	12.2	61.8	4.3	55.4	67.2	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	180	169	93.8%	1.4	167	172	0.8	1.2	0.1	0.9	1.3	A
	Second Right												
	Subtotal	180	169	93.8%	1.4	167	172	0.8	1.2	0.1	0.9	1.3	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	440	399	90.6%	5.0	392	407	2.0	16.8	6.6	8.2	27.8	B
	Second Right												
	Subtotal	440	399	90.6%	5.0	392	407	2.0	16.8	6.6	8.2	27.8	B
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,160	899	77.5%	28.4	865	949	8.1	0.2	0.0	0.1	0.2	A
	Right Turn	490	372	75.9%	21.4	344	418	5.7	0.5	0.1	0.4	0.6	A
	Second Right												
	Subtotal	1,650	1,271	77.0%	31.0	1,216	1,326	9.9	0.3	0.0	0.2	0.3	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	590	502	85.0%	21.1	478	549	3.8	58.6	22.5	20.2	93.2	E
	Right Turn	890	802	90.1%	22.9	773	837	3.0	5.5	0.6	4.3	6.3	A
	Second Right												
	Subtotal	1,480	1,303	88.1%	35.5	1,263	1,362	4.7	25.9	8.6	10.9	38.9	C
Total		3,750	3,142	83.8%	52.2	3,057	3,217	10.4	13.1	4.3	5.8	19.6	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	770	597	77.5%	11.9	577	613	6.6	171.1	4.1	166.0	178.0	F
	Through												
	Right Turn	280	221	78.8%	17.3	191	249	3.7	126.7	5.3	113.4	132.7	F
	Second Right												
	Subtotal	1,050	817	77.8%	19.4	789	846	7.6	159.1	3.8	153.8	165.9	F
EB	U Turn												
	Second Left												
	Left Turn	590	449	76.2%	27.5	406	503	6.2	74.8	2.0	71.1	77.7	E
	Through	750	614	81.9%	12.1	597	631	5.2	25.0	1.1	23.9	27.1	C
	Right Turn												
	Second Right												
	Subtotal	1,340	1,064	79.4%	29.6	1,031	1,115	8.0	46.1	1.4	44.0	48.6	D
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,200	1,086	90.5%	17.6	1,059	1,113	3.4	50.9	1.8	48.2	54.2	D
	Right Turn	180	164	91.3%	9.9	151	181	1.2	41.2	2.1	37.9	45.4	D
	Second Right												
	Subtotal	1,380	1,250	90.6%	17.4	1,226	1,281	3.6	49.7	1.8	46.8	52.8	D
Total		3,770	3,131	83.1%	34.5	3,093	3,188	10.9	77.0	1.0	75.4	78.5	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	170	173	101.7%	5.6	164	181	0.2	98.7	4.6	90.0	107.2	F	
	Through	30	33	108.3%	4.2	26	41	0.4	48.2	4.6	42.5	53.5	D	
	Right Turn	50	52	104.4%	8.5	39	67	0.3	28.4	4.9	19.0	35.8	C	
	Second Right													
	Subtotal	250	258	103.0%	4.3	251	262	0.5	78.2	5.3	67.7	87.0	E	
SB	U Turn Second Left													
	Left Turn	180	183	101.7%	14.0	155	200	0.2	193.4	11.2	179.0	216.3	F	
	Through	10	10	102.0%	2.9	7	15	0.1	50.0	44.9	19.9	173.7	D	
	Right Turn	260	265	101.9%	18.0	236	286	0.3	166.6	11.8	147.2	186.0	F	
	Second Right													
	Subtotal	450	458	101.8%	20.6	433	497	0.4	174.6	9.3	161.5	188.1	F	
EB	U Turn Second Left	40	36	90.3%	4.7	31	46	0.6	56.8	6.5	48.1	66.9	E	
	Left Turn	350	279	79.7%	8.2	266	293	4.0	84.4	5.9	72.5	90.5	F	
	Through	1,060	839	79.2%	20.7	816	883	7.2	19.4	2.4	17.0	24.9	B	
	Right Turn	70	56	79.9%	9.3	45	72	1.8	13.2	1.8	10.4	15.6	B	
	Second Right													
	Subtotal	1,520	1,211	79.6%	11.5	1,192	1,229	8.4	35.2	2.4	31.8	39.2	D	
WB	U Turn Second Left													
	Left Turn	40	35	88.3%	4.9	25	42	0.8	89.3	9.4	69.4	102.2	F	
	Through	910	765	84.1%	18.3	730	788	5.0	156.6	25.1	97.0	174.7	F	
	Right Turn	40	32	78.8%	5.4	21	38	1.4	67.2	10.2	45.0	85.9	E	
	Second Right													
	Subtotal	990	832	84.0%	16.6	804	851	5.2	150.4	23.4	93.9	167.1	F	
Total		3,210	2,758	85.9%	28.1	2,697	2,790	8.3	97.1	7.7	77.6	102.1	F	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative No Project
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through	60	80	132.8%	0.8	79	81	2.4	17.0	2.5	13.3	21.1	C
	Right Turn												
	Second Right												
	Subtotal	60	80	132.8%	0.8	79	81	2.4	17.0	2.5	13.3	21.1	C
SB	Through	10	20	200.0%	0.9	18	21	2.6	21.1	4.2	15.7	27.3	C
	Right Turn												
	Second Right												
	Subtotal	10	20	200.0%	0.9	18	21	2.6	21.1	4.2	15.7	27.3	C
NE	Through	60	48	79.7%	0.4	47	48	1.7	19.2	3.2	14.5	24.2	C
	Right Turn												
	Second Right												
	Subtotal	60	48	79.7%	0.4	47	48	1.7	19.2	3.2	14.5	24.2	C
EB	U Turn	1,530	1,144	74.7%	31.1	1,091	1,201	10.6	1.1	0.1	0.9	1.3	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	30	24	79.7%	5.5	16	33	1.2	1.0	0.8	0.2	3.0	A	
	Subtotal	1,560	1,167	74.8%	34.6	1,111	1,234	10.6	1.1	0.2	0.9	1.3	A
WB	U Turn	90	77	85.0%	6.4	64	88	1.5	18.0	12.8	3.7	46.0	C
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	60	50	82.5%	6.5	39	61	1.4	14.5	4.2	8.8	21.0	B	
	Subtotal	1,030	891	86.5%	25.1	867	938	4.5	30.2	5.2	21.8	38.6	D
Total		2,720	2,206	81.1%	38.7	2,142	2,254	10.4	14.5	2.4	10.4	18.2	B

**A.5 – VISSIM CALCULATION SHEETS – CUMULATIVE PLUS PROJECT
ACCESS SCENARIO 1**



Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	10	11	108.0%	2.8	7	15	0.2	30.1	7.4	16.8	40.5	C
	Through	10	8	76.0%	2.2	4	11	0.8	24.2	12.4	13.6	56.7	C
	Right Turn	20	22	107.5%	3.9	16	28	0.3	6.9	1.4	4.9	10.2	A
	Second Right Subtotal	40	40	99.8%	0.6	39	41	0.0	16.6	3.7	12.2	22.8	B
SB	U Turn Second Left												
	Left Turn	60	57	95.3%	6.2	46	66	0.4	57.8	4.9	52.7	68.3	E
	Through	40	40	100.8%	4.1	33	47	0.0	52.4	6.9	45.7	68.9	D
	Right Turn	20	19	94.5%	3.9	14	24	0.2	12.7	4.0	6.9	21.4	B
	Second Right Subtotal	120	116	97.0%	1.2	115	118	0.3	48.8	5.0	44.0	60.4	D
EB	U Turn Second Left												
	Left Turn	10	10	101.0%	2.5	6	14	0.0	30.0	11.4	13.9	51.9	C
	Through	170	175	103.0%	5.0	167	184	0.4	12.5	3.8	7.9	22.1	B
	Right Turn	30	29	96.0%	5.5	19	38	0.2	6.2	3.1	3.0	11.6	A
	Second Right Subtotal	210	214	101.9%	1.6	211	216	0.3	12.5	3.1	8.8	20.3	B
WB	U Turn Second Left												
	Left Turn	30	19	63.3%	4.9	12	29	2.2	39.0	7.2	29.5	52.6	D
	Through	550	288	52.4%	22.4	246	325	12.8	8.6	1.4	5.8	10.5	A
	Right Turn	70	53	76.0%	3.9	48	62	2.1	7.5	1.6	5.6	10.9	A
	Second Right Subtotal	650	361	55.5%	23.3	313	401	12.9	10.1	1.5	7.5	12.6	B
Total		1,020	731	71.7%	24.1	684	773	9.8	17.3	1.2	16.1	20.3	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 21		E St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	520	236	45.4%	21.8	189	268	14.6	15.3	2.1	11.9	18.4	B
	Through	100	47	47.3%	7.6	34	57	6.1	15.5	3.3	10.9	21.4	B
	Right Turn	420	188	44.7%	8.6	173	200	13.3	1.9	0.6	1.3	2.7	A
	Second Right												
	Subtotal	1,040	471	45.3%	25.7	417	505	20.7	10.0	1.5	7.4	12.2	A
SB	U Turn Second Left												
	Left Turn	10	10	104.0%	4.1	4	18	0.1	32.8	7.3	24.0	45.6	C
	Through	150	145	96.8%	4.8	141	154	0.4	68.1	7.1	58.6	79.9	E
	Right Turn	20	23	113.0%	4.6	17	32	0.6	23.6	6.8	12.3	37.0	C
	Second Right												
	Subtotal	180	178	99.0%	3.7	173	183	0.1	60.5	6.3	52.4	70.4	E
EB	U Turn Second Left												
	Left Turn	10	9	94.0%	3.0	5	14	0.2	35.2	22.7	9.6	94.1	D
	Through	20	20	98.0%	3.9	13	27	0.1	49.0	8.5	37.8	62.2	D
	Right Turn	220	225	102.4%	7.0	216	233	0.3	18.0	2.3	14.7	23.4	B
	Second Right												
	Subtotal	250	254	101.7%	8.7	242	265	0.3	21.3	3.0	18.0	28.2	C
WB	U Turn Second Left												
	Left Turn	250	228	91.3%	5.8	215	234	1.4	113.3	7.7	98.7	123.8	F
	Through	110	102	92.4%	11.8	88	128	0.8	81.2	9.7	73.9	105.4	F
	Right Turn	10	10	101.0%	2.0	7	14	0.0	30.5	11.3	13.0	56.4	C
	Second Right												
	Subtotal	370	340	91.9%	12.4	327	363	1.6	101.2	7.9	89.6	116.7	F
Total		1,840	1,243	67.6%	23.7	1,199	1,279	15.2	44.5	2.7	38.8	48.7	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 22		F St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	10	9	87.0%	2.1	6	12	0.4	77.1	72.5	18.8	241.3	E
	Through												
	Right Turn	170	159	93.3%	7.4	148	171	0.9	133.8	67.1	34.5	212.8	F
	Second Right												
	Subtotal	180	167	92.9%	6.4	160	179	1.0	130.3	64.5	33.6	200.8	F
EB	U Turn												
	Second Left												
	Left Turn	250	121	48.3%	7.8	108	130	9.5	2.9	1.9	0.8	7.2	A
	Through	200	97	48.5%	11.5	78	123	8.5	1.8	0.6	0.8	2.8	A
	Right Turn												
	Second Right												
	Subtotal	450	218	48.4%	10.1	200	234	12.7	2.4	1.2	0.8	5.0	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	200	184	92.2%	5.3	172	192	1.1	120.3	46.8	39.9	165.4	F
	Right Turn	10	9	92.0%	3.3	5	15	0.3	41.7	26.0	11.4	79.4	D
	Second Right												
	Subtotal	210	194	92.1%	7.0	178	200	1.2	117.1	45.2	37.9	160.6	F
Total		840	578	68.9%	11.8	555	601	9.8	77.1	32.5	22.9	110.7	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	60	41	67.8%	1.7	39	43	2.7	104.5	9.0	86.4	116.7	F
	Through	20	15	73.5%	3.3	10	19	1.3	46.2	11.0	24.5	65.8	D
	Right Turn	240	175	73.0%	15.6	146	195	4.5	160.7	16.0	135.4	192.8	F
	Second Right												
	Subtotal	320	231	72.0%	17.1	199	246	5.4	143.5	13.4	123.2	168.8	F
SB	U Turn Second Left												
	Left Turn	110	46	42.1%	6.8	37	57	7.2	114.3	14.1	88.0	134.5	F
	Through	60	25	41.2%	4.9	17	31	5.4	81.4	15.9	58.5	116.0	F
	Right Turn	320	135	42.1%	10.8	112	145	12.3	227.4	23.8	194.8	258.4	F
	Second Right												
	Subtotal	490	206	42.0%	12.8	179	222	15.2	185.1	19.8	159.0	212.9	F
EB	U Turn Second Left												
	Left Turn	50	49	97.0%	9.5	25	60	0.2	60.2	9.6	42.0	76.4	E
	Through	530	512	96.7%	16.0	490	541	0.8	27.5	2.8	23.3	33.0	C
	Right Turn	40	41	103.0%	4.9	34	49	0.2	22.1	2.9	17.3	27.2	C
	Second Right												
	Subtotal	620	602	97.1%	12.6	574	614	0.7	29.9	3.0	26.6	36.1	C
WB	U Turn Second Left												
	Left Turn	770	301	39.1%	18.6	272	317	20.3	143.2	10.7	130.3	160.2	F
	Through	660	294	44.6%	30.3	230	338	16.7	4.9	0.8	3.7	6.4	A
	Right Turn	20	10	48.0%	4.0	4	16	2.7	3.2	1.0	2.1	4.8	A
	Second Right												
	Subtotal	1,450	605	41.7%	41.6	516	662	26.4	73.8	6.1	65.0	86.3	E
Total		2,880	1,643	57.1%	36.4	1,567	1,692	26.0	81.2	4.4	73.1	88.4	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	250	247	98.9%	1.2	245	249	0.2	0.9	0.1	0.8	1.1	A
	Second Right												
	Subtotal	250	247	98.9%	1.2	245	249	0.2	0.9	0.1	0.8	1.1	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	850	246	29.0%	25.5	189	273	25.8	437.2	34.6	377.3	503.1	F
	Second Right												
	Subtotal	850	246	29.0%	25.5	189	273	25.8	437.2	34.6	377.3	503.1	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	740	622	84.0%	35.5	570	677	4.5	0.1	0.0	0.1	0.1	A
	Right Turn	190	160	84.2%	12.5	135	176	2.3	0.3	0.1	0.2	0.4	A
	Second Right												
	Subtotal	930	782	84.1%	26.9	746	826	5.1	0.1	0.0	0.1	0.2	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	640	368	57.4%	27.4	331	422	12.1	240.1	21.1	207.3	276.7	F
	Right Turn	790	409	51.8%	30.1	364	448	15.6	2.6	0.4	2.1	3.1	A
	Second Right												
	Subtotal	1,430	777	54.3%	42.1	698	840	19.7	114.8	9.1	101.2	130.3	F
Total		3,460	2,052	59.3%	64.1	1,919	2,133	26.8	95.7	4.3	88.6	102.7	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	750	478	63.7%	55.5	384	574	11.0	198.6	39.5	154.2	267.3	F
	Through												
	Right Turn	260	166	64.0%	22.0	126	196	6.4	229.6	44.7	163.5	296.0	F
	Second Right												
	Subtotal	1,010	644	63.8%	73.9	522	755	12.7	206.7	39.2	156.7	263.7	F
EB	U Turn												
	Second Left												
	Left Turn	350	292	83.5%	20.8	259	330	3.2	86.6	7.5	79.0	105.2	F
	Through	640	579	90.5%	26.3	537	617	2.5	51.9	6.2	43.7	62.1	D
	Right Turn												
	Second Right												
	Subtotal	990	871	88.0%	38.9	814	930	3.9	63.5	5.3	55.0	70.7	E
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,170	612	52.3%	34.9	561	664	18.7	243.7	18.9	217.1	270.3	F
	Right Turn	100	51	51.3%	5.3	44	59	5.6	105.5	25.0	72.2	159.8	F
	Second Right												
	Subtotal	1,270	664	52.3%	35.1	617	713	19.5	233.0	18.4	205.3	258.1	F
Total		3,270	2,179	66.6%	93.5	2,040	2,333	20.9	157.5	14.9	142.1	176.1	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	70	69	98.6%	7.1	57	78	0.1	105.0	7.2	94.3	116.5	F	
	Through	10	10	98.0%	2.3	7	14	0.1	29.9	9.4	12.9	42.7	C	
	Right Turn	50	49	98.2%	6.0	40	61	0.1	17.2	4.9	9.8	25.3	B	
	Second Right Subtotal	130	128	98.4%	3.7	122	134	0.2	65.9	5.6	56.1	75.2	E	
SB	U Turn Second Left													
	Left Turn	60	8	13.2%	4.8	3	20	8.9	232.5	401.4	15.2	1115.2	F	
	Through	30	4	14.0%	2.8	1	10	6.2	924.5	1212.4	6.9	2986.0	F	
	Right Turn	370	41	11.1%	11.8	22	61	22.9	123.0	42.7	59.1	193.9	F	
	Second Right Subtotal	460	53	11.6%	16.7	34	86	25.4	170.2	123.5	61.5	425.9	F	
EB	U Turn Second Left	20	15	75.0%	3.2	10	20	1.2	49.2	12.7	39.9	82.2	D	
	Left Turn	170	133	78.5%	15.9	107	162	3.0	68.5	8.9	54.4	84.9	E	
	Through	1,020	774	75.9%	45.9	710	848	8.2	26.8	2.5	24.0	32.4	C	
	Right Turn	180	139	77.3%	12.4	122	155	3.2	29.4	8.3	22.1	48.4	C	
	Second Right Subtotal	1,390	1,061	76.4%	62.5	981	1,178	9.4	32.8	3.8	27.8	39.5	C	
WB	U Turn Second Left													
	Left Turn	60	42	69.5%	6.3	32	52	2.6	108.2	19.6	87.2	144.1	F	
	Through	810	552	68.2%	27.1	518	593	9.9	237.7	20.2	205.3	264.4	F	
	Right Turn	190	127	66.9%	13.6	105	150	5.0	127.8	15.9	107.7	159.8	F	
	Second Right Subtotal	1,060	721	68.0%	34.6	663	769	11.4	210.9	18.1	184.6	237.1	F	
Total		3,040	1,964	64.6%	85.9	1,820	2,086	21.5	104.0	7.1	91.4	113.9	F	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through	10	8	81.0%	0.3	8	9	0.6	7.6	1.9	6.1	12.4	A
	Right Turn												
	Second Right												
	Subtotal	10	8	81.0%	0.3	8	9	0.6	7.6	1.9	6.1	12.4	A
SB	Through	10	8	79.0%	0.3	7	8	0.7	5.8	0.3	4.9	6.2	A
	Right Turn												
	Second Right												
	Subtotal	10	8	79.0%	0.3	7	8	0.7	5.8	0.3	4.9	6.2	A
NE	Through	60	60	100.0%	0.7	59	61	0.0	12.2	0.9	11.2	13.6	B
	Right Turn												
	Second Right												
	Subtotal	60	60	100.0%	0.7	59	61	0.0	12.2	0.9	11.2	13.6	B
EB	U Turn	860	714	83.0%	26.7	680	759	5.2	0.6	0.1	0.5	0.7	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	880	735	83.5%	26.7	702	780	5.1	0.6	0.1	0.5	0.7	A
WB	U Turn	770	300	39.0%	18.8	270	317	20.3	82.2	7.1	73.9	95.0	F
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	1,490	617	41.4%	43.6	525	682	26.9	41.4	3.8	35.8	48.7	E
Total		2,450	1,428	58.3%	41.6	1,344	1,493	23.2	18.8	0.8	17.5	20.1	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	10	10	97.0%	2.5	7	13	0.1	24.0	7.4	15.4	39.5	C
	Through	10	11	112.0%	3.1	6	16	0.4	28.9	6.5	21.6	38.3	C
	Right Turn	20	20	97.5%	4.3	14	28	0.1	6.1	0.7	4.7	7.0	A
	Second Right Subtotal	40	40	101.0%	1.1	39	42	0.1	16.7	3.8	12.8	23.9	B
SB	U Turn Second Left												
	Left Turn	60	57	95.3%	5.8	53	68	0.4	44.1	3.2	38.7	48.7	D
	Through	40	38	94.3%	4.6	31	43	0.4	38.8	4.7	32.5	45.5	D
	Right Turn	20	20	101.5%	5.7	11	30	0.1	13.7	2.4	9.6	16.8	B
	Second Right Subtotal	120	115	96.0%	1.8	112	118	0.4	37.1	2.6	32.8	40.9	D
EB	U Turn Second Left												
	Left Turn	10	12	119.0%	3.3	7	16	0.6	30.0	10.4	18.3	55.0	C
	Through	170	171	100.5%	4.4	162	175	0.1	11.8	2.1	8.8	15.5	B
	Right Turn	30	30	99.7%	4.8	22	38	0.0	6.8	2.1	3.8	10.8	A
	Second Right Subtotal	210	213	101.2%	2.5	209	217	0.2	12.1	1.8	9.1	15.6	B
WB	U Turn Second Left												
	Left Turn	30	27	90.0%	4.6	19	33	0.6	36.3	7.2	25.8	51.2	D
	Through	550	516	93.8%	18.4	473	537	1.5	12.1	1.6	9.6	14.5	B
	Right Turn	70	80	114.4%	8.5	61	92	1.2	8.5	1.7	6.2	11.1	A
	Second Right Subtotal	650	623	95.8%	20.0	576	645	1.1	12.7	1.5	10.4	14.9	B
Total		1,020	991	97.2%	20.9	944	1,015	0.9	15.6	1.0	13.7	16.5	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	520	488	93.8%	17.2	461	517	1.4	27.9	2.4	23.6	32.3	C
	Through	100	97	96.5%	8.2	86	112	0.4	25.0	3.0	21.1	30.2	C
	Right Turn	420	401	95.5%	17.2	363	421	0.9	12.6	1.2	10.0	13.7	B
	Second Right												
	Subtotal	1,040	985	94.8%	21.3	960	1,021	1.7	21.4	1.8	17.7	24.1	C
SB	U Turn Second Left												
	Left Turn	10	10	103.0%	5.0	4	18	0.1	34.0	14.4	17.3	62.3	C
	Through	150	147	97.7%	6.0	136	156	0.3	66.0	7.6	51.9	75.8	E
	Right Turn	20	21	107.0%	4.5	16	30	0.3	24.9	8.6	13.6	42.3	C
	Second Right												
	Subtotal	180	178	99.1%	2.8	175	184	0.1	59.3	6.8	46.7	69.8	E
EB	U Turn Second Left												
	Left Turn	10	8	81.0%	4.1	0	14	0.6	31.4	21.8	0.0	74.3	C
	Through	20	20	101.0%	4.1	13	28	0.0	41.7	7.4	32.6	54.1	D
	Right Turn	220	220	99.8%	3.5	215	226	0.0	16.0	2.3	11.0	19.0	B
	Second Right												
	Subtotal	250	248	99.2%	5.4	240	257	0.1	18.7	2.8	13.5	24.0	B
WB	U Turn Second Left												
	Left Turn	250	244	97.8%	8.5	234	257	0.4	70.0	4.5	63.2	75.4	E
	Through	110	111	100.5%	8.9	101	131	0.1	50.0	3.6	44.8	55.5	D
	Right Turn	10	12	116.0%	2.9	8	18	0.5	22.0	6.2	13.7	34.5	C
	Second Right												
	Subtotal	370	367	99.1%	7.3	355	376	0.2	62.6	3.1	57.4	66.2	E
Total		1,840	1,778	96.6%	24.4	1,753	1,829	1.5	33.3	2.0	28.9	35.9	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	10	9	87.0%	1.9	6	12	0.4	14.3	3.2	8.6	18.5	B
	Through												
	Right Turn	170	57	33.2%	7.8	46	69	10.7	11.0	3.4	8.3	19.5	B
	Second Right												
	Subtotal	180	65	36.2%	7.0	56	77	10.4	11.5	3.0	8.3	18.7	B
EB	U Turn												
	Second Left												
	Left Turn	250	247	98.8%	16.1	219	280	0.2	29.4	1.8	27.2	31.8	C
	Through	200	186	93.1%	14.8	164	209	1.0	1.8	0.6	1.0	3.0	A
	Right Turn												
	Second Right												
	Subtotal	450	433	96.3%	21.2	383	452	0.8	17.6	1.4	15.7	20.3	B
WB	U Turn												
	Second Left												
	Left Turn												
	Through	200	66	32.8%	5.1	57	72	11.7	26.3	3.5	21.0	30.3	C
	Right Turn	10	10	98.0%	2.9	6	15	0.1	11.7	2.7	8.0	17.2	B
	Second Right												
	Subtotal	210	75	35.9%	5.7	63	84	11.3	24.5	3.1	19.7	27.8	C
Total		840	574	68.3%	18.1	530	592	10.0	17.8	1.3	15.6	20.2	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	60	48	79.3%	5.8	40	58	1.7	35.4	4.9	27.9	43.3	D
	Through	20	16	78.0%	4.6	8	22	1.0	21.1	5.5	13.1	30.0	C
	Right Turn	240	238	99.1%	4.8	230	247	0.1	12.8	1.0	11.4	14.7	B
	Second Right Subtotal	320	301	94.1%	4.7	295	309	1.1	16.8	1.4	14.4	18.8	B
SB	U Turn Second Left												
	Left Turn	110	95	86.2%	11.5	84	116	1.5	98.4	7.7	84.4	108.7	F
	Through	60	53	87.7%	5.4	47	65	1.0	105.6	10.8	85.2	119.9	F
	Right Turn	320	277	86.6%	11.6	260	294	2.5	161.2	11.3	145.1	175.7	F
	Second Right Subtotal	490	425	86.6%	18.8	399	459	3.1	140.4	9.9	122.1	152.5	F
EB	U Turn Second Left												
	Left Turn	50	51	102.0%	4.6	42	57	0.1	56.6	4.2	48.4	61.0	E
	Through	530	520	98.0%	9.0	509	533	0.5	29.8	2.2	26.2	33.7	C
	Right Turn	40	39	97.8%	4.7	33	48	0.1	20.2	2.2	17.1	24.4	C
	Second Right Subtotal	620	610	98.3%	10.9	594	633	0.4	31.5	1.9	28.8	34.8	C
WB	U Turn Second Left												
	Left Turn	770	765	99.3%	24.5	737	804	0.2	54.4	4.2	50.0	61.9	D
	Through	660	662	100.3%	19.7	636	700	0.1	17.9	1.3	15.8	19.6	B
	Right Turn	20	23	113.0%	5.8	15	30	0.6	5.4	1.1	4.1	7.4	A
	Second Right Subtotal	1,450	1,449	99.9%	17.2	1,424	1,478	0.0	37.0	2.5	34.4	41.3	D
Total		2,880	2,784	96.7%	37.8	2,735	2,835	1.8	49.3	1.6	46.1	51.2	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	250	251	100.2%	16.1	218	275	0.0	43.2	3.1	36.8	47.6	D
	Through												
	Right Turn	850	847	99.6%	14.4	829	873	0.1	37.3	3.3	32.9	41.6	D
	Second Right												
	Subtotal	1,100	1,098	99.8%	9.1	1,081	1,107	0.1	38.7	3.0	33.8	42.3	D
EB	U Turn												
	Second Left												
	Left Turn												
	Through	740	712	96.3%	20.7	678	744	1.0	20.5	1.5	18.2	22.6	C
	Right Turn	190	183	96.2%	13.7	163	200	0.5	3.5	0.7	2.6	5.0	A
	Second Right												
	Subtotal	930	895	96.3%	21.9	867	930	1.2	17.0	1.0	15.7	18.4	B
WB	U Turn												
	Second Left												
	Left Turn	790	797	100.8%	38.8	734	853	0.2	27.4	4.7	22.3	35.7	C
	Through	640	646	100.9%	16.6	613	672	0.2	12.2	1.0	10.6	14.0	B
	Right Turn												
	Second Right												
	Subtotal	1,430	1,442	100.8%	43.8	1,347	1,498	0.3	20.6	2.7	17.9	25.5	C
Total		3,460	3,435	99.3%	47.7	3,367	3,533	0.4	25.5	1.3	23.9	27.5	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	750	747	99.5%	17.5	713	772	0.1	52.0	1.9	49.1	54.7	D
	Through												
	Right Turn	260	260	100.1%	15.0	243	291	0.0	23.8	3.4	20.2	30.5	C
	Second Right												
	Subtotal	1,010	1,007	99.7%	6.3	998	1,017	0.1	44.7	1.7	42.0	46.5	D
EB	U Turn												
	Second Left												
	Left Turn	350	335	95.7%	14.6	315	357	0.8	75.0	2.7	69.8	78.3	E
	Through	640	629	98.3%	20.3	591	657	0.4	6.3	0.7	5.4	8.0	A
	Right Turn												
	Second Right												
	Subtotal	990	964	97.4%	19.7	942	998	0.8	30.2	1.8	27.6	33.5	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,170	1,178	100.7%	37.0	1,087	1,222	0.2	14.7	1.2	13.6	17.3	B
	Right Turn	100	95	94.5%	7.7	82	107	0.6	9.4	1.4	6.8	11.5	A
	Second Right												
	Subtotal	1,270	1,272	100.2%	34.0	1,191	1,321	0.1	14.3	1.1	13.2	16.7	B
Total		3,270	3,243	99.2%	41.2	3,165	3,307	0.5	28.5	1.1	27.0	30.0	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	70	68	96.9%	6.4	57	77	0.3	48.2	3.4	43.6	53.3	D	
	Through	10	10	103.0%	2.9	7	16	0.1	21.9	6.0	13.3	33.5	C	
	Right Turn	50	50	99.6%	6.4	44	65	0.0	8.3	1.9	6.1	12.8	A	
	Second Right Subtotal	130	128	98.4%	2.1	124	130	0.2	30.6	3.0	24.2	35.1	C	
SB	U Turn Second Left													
	Left Turn	60	59	98.0%	5.7	52	68	0.2	53.2	6.8	43.2	67.5	D	
	Through	30	32	105.0%	5.3	24	40	0.3	46.6	6.4	35.1	56.5	D	
	Right Turn	370	367	99.3%	8.7	351	380	0.1	50.0	10.8	34.5	65.3	D	
	Second Right Subtotal	460	458	99.5%	5.6	449	470	0.1	50.2	9.2	37.9	65.0	D	
EB	U Turn Second Left	20	20	99.5%	4.5	14	26	0.0	23.4	4.5	18.5	32.4	C	
	Left Turn	170	172	101.1%	15.2	151	201	0.1	35.1	4.4	27.1	41.0	D	
	Through	1,020	1,008	98.8%	15.1	992	1,030	0.4	25.2	1.6	23.7	28.9	C	
	Right Turn	180	178	98.8%	6.3	170	186	0.2	22.7	2.4	19.3	26.4	C	
	Second Right Subtotal	1,390	1,378	99.1%	21.9	1,343	1,416	0.3	26.1	1.4	24.8	29.5	C	
WB	U Turn Second Left													
	Left Turn	60	56	93.5%	7.7	42	70	0.5	71.2	11.3	53.3	99.1	E	
	Through	810	809	99.9%	31.8	748	864	0.0	51.5	10.2	39.8	72.8	D	
	Right Turn	190	182	95.7%	14.7	149	195	0.6	26.9	8.4	16.9	44.7	C	
	Second Right Subtotal	1,060	1,047	98.8%	31.5	994	1,105	0.4	48.3	9.2	38.3	68.2	D	
Total		3,040	3,010	99.0%	41.4	2,959	3,075	0.5	37.7	3.0	33.9	42.2	D	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through	10	8	81.0%	0.3	8	9	0.6	6.1	0.2	5.9	6.3	A
	Right Turn												
	Second Right												
	Subtotal	10	8	81.0%	0.3	8	9	0.6	6.1	0.2	5.9	6.3	A
SB	Through	10	8	80.0%	0.0	8	8	0.7	13.5	3.5	7.6	19.3	B
	Right Turn												
	Second Right												
	Subtotal	10	8	80.0%	0.0	8	8	0.7	13.5	3.5	7.6	19.3	B
NE	Through	60	60	99.8%	0.7	59	61	0.0	9.4	0.4	8.9	10.3	A
	Right Turn												
	Second Right												
	Subtotal	60	60	99.8%	0.7	59	61	0.0	9.4	0.4	8.9	10.3	A
EB	U Turn	860	831	96.7%	20.0	807	867	1.0	0.3	0.0	0.2	0.4	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	20	21	104.0%	4.4	13	28	0.2	1.0	0.2	0.8	1.6	A	
	Subtotal	880	852	96.8%	17.9	829	882	0.9	0.3	0.0	0.3	0.4	A
WB	U Turn	770	765	99.3%	24.5	736	804	0.2	23.9	4.3	19.5	31.6	C
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	50	23	45.2%	5.8	15	30	4.5	4.7	0.8	3.9	5.7	A	
	Subtotal	1,490	1,447	97.1%	17.3	1,421	1,475	1.1	16.1	2.4	13.5	20.1	C
Total		2,450	2,375	96.9%	29.4	2,330	2,412	1.5	10.2	1.5	8.7	12.7	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	40	42	104.3%	5.0	34	48	0.3	58.7	6.1	49.0	67.4	E
	Through	60	63	104.2%	5.2	51	68	0.3	70.2	16.2	53.7	112.6	E
	Right Turn	80	75	93.9%	3.4	71	80	0.6	41.2	7.5	28.6	51.8	D
	Second Right												
	Subtotal	180	179	99.6%	3.7	173	185	0.1	55.7	8.4	47.1	75.7	E
SB	U Turn Second Left												
	Left Turn	100	59	59.1%	14.0	34	76	4.6	159.6	62.3	68.7	263.9	F
	Through	60	36	60.3%	13.1	17	51	3.4	180.6	188.3	43.3	679.6	F
	Right Turn	60	31	52.3%	11.5	12	44	4.2	183.0	184.2	51.8	661.0	F
	Second Right												
	Subtotal	220	127	57.6%	36.7	65	169	7.1	162.3	54.5	78.2	249.4	F
EB	U Turn Second Left												
	Left Turn	10	11	110.0%	3.4	6	19	0.3	71.8	78.4	28.9	292.7	E
	Through	440	424	96.5%	18.1	402	457	0.8	148.9	40.4	89.3	214.8	F
	Right Turn	70	64	91.6%	9.6	48	80	0.7	101.9	25.3	66.9	153.8	F
	Second Right												
	Subtotal	520	500	96.1%	22.1	462	527	0.9	141.2	38.3	84.8	204.7	F
WB	U Turn Second Left												
	Left Turn	80	52	65.4%	8.7	42	68	3.4	68.8	7.1	59.5	83.5	E
	Through	590	340	57.6%	16.8	313	361	11.6	17.9	1.9	16.0	21.3	B
	Right Turn	80	70	87.1%	11.4	52	88	1.2	17.6	3.2	11.8	21.9	B
	Second Right												
	Subtotal	750	462	61.6%	31.9	425	517	11.7	23.6	2.7	20.3	29.0	C
Total		1,670	1,268	75.9%	47.5	1,192	1,345	10.5	87.7	13.1	64.6	105.2	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	450	227	50.5%	22.3	201	264	12.1	31.9	2.8	28.2	38.3	C
	Through	140	71	50.8%	9.7	54	80	6.7	31.2	2.3	27.5	34.5	C
	Right Turn	450	229	50.8%	19.0	208	264	12.0	10.0	2.1	7.5	15.3	B
	Second Right												
	Subtotal	1,040	527	50.7%	33.6	476	585	18.3	22.3	1.2	20.6	23.8	C
SB	U Turn Second Left												
	Left Turn	10	8	77.0%	2.2	4	11	0.8	39.2	35.2	18.0	137.2	D
	Through	410	292	71.2%	19.2	258	320	6.3	172.0	14.1	150.2	195.2	F
	Right Turn	40	31	76.3%	4.4	23	38	1.6	77.3	15.5	52.0	100.9	E
	Second Right												
	Subtotal	460	330	71.8%	21.2	297	360	6.5	160.3	13.9	138.4	183.6	F
EB	U Turn Second Left												
	Left Turn	20	16	77.5%	3.6	11	21	1.1	49.2	15.4	17.3	64.3	D
	Through	50	44	87.0%	6.3	32	56	1.0	99.7	14.0	75.0	116.4	F
	Right Turn	550	501	91.0%	25.4	453	536	2.2	26.1	3.0	21.3	30.4	C
	Second Right												
	Subtotal	620	560	90.3%	25.5	515	597	2.5	32.6	2.0	30.4	37.2	C
WB	U Turn Second Left												
	Left Turn	250	195	78.0%	8.9	181	212	3.7	117.2	4.2	109.1	122.2	F
	Through	260	204	78.3%	10.9	183	216	3.7	114.7	8.9	98.7	131.4	F
	Right Turn	10	7	74.0%	2.2	5	11	0.9	29.7	20.5	13.7	85.3	C
	Second Right												
	Subtotal	520	406	78.1%	6.6	394	416	5.3	114.5	5.3	107.8	123.8	F
Total		2,640	1,823	69.0%	37.0	1,744	1,876	17.3	70.9	1.8	68.7	73.3	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	20	13	64.0%	4.3	8	23	1.8	83.6	87.0	26.0	261.9	F
	Through												
	Right Turn	270	193	71.4%	4.5	183	201	5.1	233.6	9.1	214.2	245.5	F
	Second Right												
	Subtotal	290	206	70.9%	5.4	198	214	5.4	224.7	9.8	209.8	245.1	F
EB	U Turn												
	Second Left												
	Left Turn	180	102	56.5%	9.2	87	115	6.6	6.3	2.3	2.2	10.0	A
	Through	330	179	54.3%	13.1	160	201	9.5	6.0	1.4	4.5	8.6	A
	Right Turn												
	Second Right												
	Subtotal	510	281	55.1%	14.3	261	310	11.5	6.1	1.5	3.7	8.3	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	250	213	85.3%	6.0	204	221	2.4	189.7	13.7	160.2	204.9	F
	Right Turn	20	15	76.5%	4.1	10	22	1.1	51.1	14.4	29.9	76.1	D
	Second Right												
	Subtotal	270	229	84.6%	6.8	218	237	2.6	180.5	12.2	153.5	193.1	F
Total		1,070	715	66.8%	20.7	685	756	11.9	124.7	4.6	115.5	131.7	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	70	20	28.4%	5.1	11	27	7.5	57.4	11.2	36.1	71.0	E	
	Through	60	18	30.3%	2.7	15	23	6.7	62.2	32.6	46.6	153.6	E	
	Right Turn	610	178	29.1%	22.3	140	208	21.8	156.0	11.6	142.0	180.7	F	
	Second Right Subtotal	740	216	29.1%	24.1	171	244	24.0	139.2	8.4	129.9	158.1	F	
SB	U Turn Second Left													
	Left Turn	170	94	55.1%	5.2	88	101	6.6	244.4	37.1	173.5	288.7	F	
	Through	40	21	52.5%	7.5	11	36	3.4	70.5	18.6	44.3	97.0	E	
	Right Turn	180	92	51.2%	11.3	77	108	7.5	176.0	20.6	146.9	206.4	F	
	Second Right Subtotal	390	207	53.0%	18.4	177	233	10.6	197.4	23.9	162.8	226.3	F	
EB	U Turn Second Left													
	Left Turn	90	70	78.0%	5.6	65	78	2.2	65.3	5.0	57.1	75.5	E	
	Through	1,080	887	82.1%	22.0	847	919	6.2	22.0	2.5	17.1	24.6	C	
	Right Turn	40	32	80.5%	4.9	24	40	1.3	17.9	4.9	10.9	27.5	B	
	Second Right Subtotal	1,210	990	81.8%	25.3	946	1,018	6.6	24.9	2.5	19.9	27.7	C	
WB	U Turn Second Left													
	Left Turn	270	99	36.5%	5.3	88	106	12.6	230.7	12.2	208.8	244.5	F	
	Through	790	414	52.4%	27.7	370	454	15.3	16.0	1.9	13.7	19.9	B	
	Right Turn	70	32	45.6%	5.5	26	45	5.3	5.5	2.7	3.0	12.4	A	
	Second Right Subtotal	1,130	544	48.2%	31.5	494	596	20.2	54.3	3.3	45.9	58.1	D	
Total		3,470	1,956	56.4%	32.6	1,881	2,005	29.1	63.9	3.4	59.3	68.4	E	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	150	147	98.1%	1.0	146	149	0.2	1.1	0.2	0.8	1.4	A
	Second Right												
	Subtotal	150	147	98.1%	1.0	146	149	0.2	1.1	0.2	0.8	1.4	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	510	321	63.0%	34.1	271	369	9.3	378.1	51.6	301.8	453.4	F
	Second Right												
	Subtotal	510	321	63.0%	34.1	271	369	9.3	378.1	51.6	301.8	453.4	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,430	916	64.1%	33.1	873	978	15.0	0.2	0.0	0.1	0.2	A
	Right Turn	520	336	64.6%	19.1	299	371	8.9	0.4	0.1	0.4	0.6	A
	Second Right												
	Subtotal	1,950	1,252	64.2%	32.1	1,203	1,300	17.4	0.2	0.0	0.2	0.3	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	670	243	36.2%	22.7	207	271	20.0	324.7	30.8	283.8	382.8	F
	Right Turn	830	358	43.2%	30.4	318	407	19.4	2.7	0.7	2.0	4.5	A
	Second Right												
	Subtotal	1,500	601	40.1%	44.1	547	672	27.7	132.6	13.1	116.7	152.9	F
Total		4,110	2,322	56.5%	40.0	2,263	2,387	31.5	86.5	6.2	72.9	96.3	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	640	180	28.1%	38.0	118	250	22.7	342.4	62.3	209.5	443.3	F
	Through												
	Right Turn	260	67	25.9%	15.3	46	91	15.1	218.9	52.9	166.3	340.3	F
	Second Right												
	Subtotal	900	247	27.5%	49.2	164	319	27.3	309.0	54.0	198.6	411.4	F
EB	U Turn												
	Second Left												
	Left Turn	730	461	63.1%	14.5	434	478	11.0	74.1	3.5	70.1	81.0	E
	Through	850	603	71.0%	30.0	560	657	9.2	25.7	1.5	24.3	29.0	C
	Right Turn												
	Second Right												
	Subtotal	1,580	1,064	67.3%	32.5	1,018	1,127	14.2	46.7	1.5	45.2	50.3	D
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,240	544	43.8%	44.9	495	626	23.3	284.9	30.9	240.8	339.1	F
	Right Turn	170	77	45.1%	10.4	58	88	8.4	131.8	20.4	99.0	159.0	F
	Second Right												
	Subtotal	1,410	620	44.0%	50.2	553	706	24.8	266.1	30.1	221.7	316.7	F
Total		3,890	1,931	49.6%	43.3	1,881	2,014	36.3	150.8	14.2	133.6	180.7	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	170	164	96.2%	5.8	156	174	0.5	140.7	28.1	115.9	207.4	F
	Through	30	29	97.7%	5.1	24	39	0.1	40.6	5.6	32.4	50.0	D
	Right Turn	50	48	96.6%	5.2	42	57	0.2	22.9	10.8	15.2	52.3	C
	Second Right												
	Subtotal	250	241	96.4%	6.7	233	252	0.6	105.1	21.8	86.9	159.1	F
SB	U Turn												
	Second Left												
	Left Turn	190	68	35.7%	12.8	52	88	10.8	143.7	37.3	84.5	198.0	F
	Through	10	4	36.0%	1.2	1	5	2.5	109.8	168.3	5.9	433.6	F
	Right Turn	280	93	33.1%	15.9	72	123	13.7	230.0	59.8	137.5	345.6	F
	Second Right												
	Subtotal	480	164	34.2%	26.2	131	200	17.6	191.9	49.3	113.2	281.2	F
EB	U Turn	40	24	60.3%	6.3	18	40	2.8	66.8	24.4	44.3	117.6	E
	Second Left												
	Left Turn	410	202	49.1%	18.9	171	222	11.9	85.2	15.1	74.1	125.8	F
	Through	970	526	54.2%	44.7	452	614	16.2	19.6	1.7	17.5	22.9	B
	Right Turn	70	35	49.7%	5.1	30	45	4.9	13.6	3.6	9.8	20.8	B
	Second Right												
	Subtotal	1,490	786	52.8%	60.5	679	899	20.9	37.8	5.9	33.5	53.9	D
WB	U Turn												
	Second Left												
	Left Turn	40	14	35.8%	3.2	11	19	4.9	78.0	99.7	34.3	360.7	E
	Through	920	347	37.7%	35.3	290	410	22.8	393.2	40.1	317.2	476.4	F
	Right Turn	40	17	41.3%	2.8	14	23	4.4	58.4	16.9	38.1	93.9	E
	Second Right												
	Subtotal	1,000	377	37.7%	38.6	315	443	23.7	366.6	37.6	294.7	445.3	F
Total		3,220	1,569	48.7%	43.3	1,493	1,643	33.7	143.0	15.7	117.5	172.2	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through	60	56	93.0%	1.0	54	58	0.6	14.1	1.8	11.9	17.9	B
	Right Turn												
	Second Right												
	Subtotal	60	56	93.0%	1.0	54	58	0.6	14.1	1.8	11.9	17.9	B
SB	Through	10	8	79.0%	0.3	7	8	0.7	7.5	2.2	5.4	12.9	A
	Right Turn												
	Second Right												
	Subtotal	10	8	79.0%	0.3	7	8	0.7	7.5	2.2	5.4	12.9	A
NE	Through	60	56	93.2%	0.6	55	57	0.5	18.5	1.3	16.8	20.9	C
	Right Turn												
	Second Right												
	Subtotal	60	56	93.2%	0.6	55	57	0.5	18.5	1.3	16.8	20.9	C
EB	U Turn	1,830	1,140	62.3%	31.9	1,088	1,186	17.9	1.0	0.2	0.7	1.2	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	30	26	85.7%	6.4	15	38	0.8	0.8	0.4	0.4	1.5	A	
	Subtotal	1,860	1,166	62.7%	28.3	1,122	1,213	17.8	1.0	0.1	0.7	1.2	A
WB	U Turn	270	99	36.6%	5.2	89	107	12.6	174.0	7.4	160.1	183.3	F
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right	60	28	47.3%	8.5	13	39	4.8	4.5	4.0	1.5	14.6	A	
	Subtotal	1,180	566	48.0%	38.1	509	630	20.8	36.1	2.7	31.9	41.5	E
Total		3,170	1,851	58.4%	33.4	1,792	1,900	26.3	13.0	0.7	11.8	14.2	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	40	42	104.5%	6.0	33	53	0.3	58.2	8.2	47.4	69.2	E	
	Through	60	60	100.2%	6.6	49	67	0.0	63.7	12.6	41.8	80.4	E	
	Right Turn	80	77	96.8%	8.6	69	97	0.3	31.2	4.2	24.8	37.9	C	
	Second Right Subtotal	180	179	99.6%	2.8	173	182	0.1	48.7	7.1	38.4	59.1	D	
SB	U Turn Second Left													
	Left Turn	100	92	92.3%	8.2	81	105	0.8	143.9	39.1	76.0	215.7	F	
	Through	60	55	91.0%	7.4	44	67	0.7	107.2	29.8	59.8	155.7	F	
	Right Turn	60	59	98.8%	3.7	53	67	0.1	100.7	39.8	40.9	160.1	F	
	Second Right Subtotal	220	206	93.7%	13.9	182	224	0.9	121.9	35.2	62.6	183.7	F	
EB	U Turn Second Left													
	Left Turn	10	9	94.0%	4.0	5	19	0.2	51.0	58.2	16.1	213.1	D	
	Through	440	368	83.6%	20.2	339	398	3.6	220.8	18.6	181.6	245.1	F	
	Right Turn	70	58	83.4%	6.1	47	67	1.4	120.8	12.8	103.4	144.9	F	
	Second Right Subtotal	520	436	83.8%	24.9	402	476	3.9	203.8	17.0	167.9	228.2	F	
WB	U Turn Second Left													
	Left Turn	80	77	96.6%	8.1	63	90	0.3	41.4	1.8	37.3	43.8	D	
	Through	590	549	93.0%	22.6	519	585	1.7	20.0	1.6	17.7	22.4	C	
	Right Turn	80	93	115.6%	10.1	81	110	1.3	14.7	1.3	12.5	16.2	B	
	Second Right Subtotal	750	718	95.8%	23.4	682	748	1.2	21.6	1.3	19.6	23.5	C	
Total		1,670	1,539	92.2%	44.2	1,476	1,615	3.3	89.5	6.9	77.9	100.9	F	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	450	425	94.4%	17.1	400	449	1.2	41.2	4.0	34.8	47.8	D
	Through	140	137	98.0%	11.8	123	158	0.2	39.3	4.9	31.6	46.5	D
	Right Turn	450	435	96.6%	13.5	412	458	0.7	17.6	2.6	13.6	23.0	B
	Second Right												
	Subtotal	1,040	997	95.9%	14.4	974	1,014	1.4	30.6	3.3	25.7	36.8	C
SB	U Turn Second Left												
	Left Turn	10	8	83.0%	2.9	5	13	0.6	28.8	9.3	15.7	44.9	C
	Through	410	318	77.5%	17.0	300	355	4.8	161.7	8.4	147.0	177.3	F
	Right Turn	40	33	82.0%	4.3	28	43	1.2	75.7	7.8	59.9	83.3	E
	Second Right												
	Subtotal	460	359	78.0%	16.1	343	391	5.0	150.8	7.2	138.4	165.2	F
EB	U Turn Second Left												
	Left Turn	20	16	80.0%	4.7	10	23	0.9	49.1	16.2	27.9	80.5	D
	Through	50	41	81.2%	6.9	29	50	1.4	91.4	16.4	64.1	119.3	F
	Right Turn	550	482	87.6%	24.5	434	510	3.0	40.7	2.6	35.8	43.9	D
	Second Right												
	Subtotal	620	538	86.8%	23.9	495	573	3.4	45.1	2.0	42.5	49.3	D
WB	U Turn Second Left												
	Left Turn	250	242	96.7%	9.2	224	256	0.5	78.6	10.3	62.1	99.2	E
	Through	260	255	98.2%	12.0	230	272	0.3	70.2	8.1	58.7	82.4	E
	Right Turn	10	10	98.0%	3.6	3	13	0.1	23.2	7.4	14.6	33.3	C
	Second Right												
	Subtotal	520	507	97.5%	13.1	485	524	0.6	73.4	7.1	59.6	81.7	E
Total		2,640	2,401	91.0%	33.9	2,344	2,461	4.8	60.8	1.7	58.3	64.2	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	20	18	88.0%	6.2	12	31	0.6	37.2	17.3	17.4	67.1	D
	Through												
	Right Turn	270	139	51.5%	9.9	123	160	9.2	50.7	24.1	16.0	88.2	D
	Second Right												
	Subtotal	290	157	54.0%	6.9	148	172	8.9	49.5	22.3	17.4	84.0	D
EB	U Turn												
	Second Left												
	Left Turn	180	179	99.6%	9.1	165	195	0.1	25.3	2.3	21.5	29.6	C
	Through	330	304	92.2%	17.9	282	344	1.4	10.9	1.2	9.5	13.1	B
	Right Turn												
	Second Right												
	Subtotal	510	484	94.8%	17.1	457	509	1.2	16.2	1.5	13.9	18.3	B
WB	U Turn												
	Second Left												
	Left Turn												
	Through	250	127	50.8%	11.4	105	139	9.0	83.3	43.4	27.2	147.6	F
	Right Turn	20	18	90.0%	4.4	12	26	0.5	48.8	31.6	18.6	108.7	D
	Second Right												
	Subtotal	270	145	53.7%	13.5	117	161	8.7	79.3	41.8	25.6	143.6	E
Total		1,070	785	73.4%	23.2	752	828	9.4	34.3	11.7	17.5	50.7	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	70	36	50.7%	4.3	31	43	4.8	43.5	11.0	31.3	67.9	D
	Through	60	31	51.3%	5.6	23	42	4.3	62.9	16.2	42.3	89.3	E
	Right Turn	610	605	99.2%	8.3	589	615	0.2	74.3	23.8	49.1	128.0	E
	Second Right												
	Subtotal	740	671	90.7%	11.4	649	687	2.6	72.1	22.4	48.6	123.2	E
SB	U Turn Second Left												
	Left Turn	170	169	99.6%	12.6	146	184	0.1	56.9	7.9	47.1	72.4	E
	Through	40	40	99.8%	4.8	34	48	0.0	46.6	11.9	32.1	70.1	D
	Right Turn	180	179	99.3%	15.9	157	200	0.1	46.9	8.9	36.2	64.4	D
	Second Right												
	Subtotal	390	388	99.5%	4.7	381	396	0.1	51.4	7.3	43.2	68.1	D
EB	U Turn Second Left												
	Left Turn	90	79	87.8%	8.1	69	93	1.2	86.0	8.1	72.6	98.4	F
	Through	1,080	932	86.3%	16.6	906	957	4.7	36.8	2.7	31.5	39.7	D
	Right Turn	40	32	80.5%	5.7	23	42	1.3	25.8	4.0	17.9	32.4	C
	Second Right												
	Subtotal	1,210	1,043	86.2%	14.8	1,021	1,062	5.0	40.2	3.0	34.2	44.3	D
WB	U Turn Second Left												
	Left Turn	270	264	97.8%	14.1	243	282	0.4	69.8	7.6	57.5	81.0	E
	Through	790	784	99.2%	11.8	760	796	0.2	44.7	14.8	26.0	74.3	D
	Right Turn	70	65	92.9%	6.1	55	76	0.6	12.5	5.6	6.9	26.1	B
	Second Right												
	Subtotal	1,130	1,113	98.5%	16.5	1,092	1,140	0.5	48.8	12.2	34.1	73.1	D
Total		3,470	3,215	92.7%	21.3	3,177	3,244	4.4	51.2	6.0	41.8	63.5	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	150	143	95.6%	7.8	134	159	0.5	57.8	7.0	48.5	71.9	E
	Through												
	Right Turn	510	513	100.6%	12.0	493	531	0.1	36.2	10.5	26.6	56.2	D
	Second Right												
	Subtotal	660	657	99.5%	11.5	632	668	0.1	40.9	8.6	32.1	56.0	D
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,430	1,320	92.3%	14.7	1,292	1,339	3.0	27.0	0.7	26.1	28.3	C
	Right Turn	520	474	91.1%	15.3	446	494	2.1	14.1	1.4	12.1	16.5	B
	Second Right												
	Subtotal	1,950	1,794	92.0%	15.4	1,772	1,811	3.6	23.6	0.5	23.0	24.3	C
WB	U Turn												
	Second Left												
	Left Turn	830	798	96.2%	24.0	755	830	1.1	36.6	1.2	35.2	39.3	D
	Through	670	653	97.5%	18.1	629	690	0.7	11.2	8.2	3.2	26.9	B
	Right Turn												
	Second Right												
	Subtotal	1,500	1,451	96.8%	16.9	1,426	1,480	1.3	25.2	3.7	21.6	32.0	C
Total		4,110	3,902	94.9%	33.9	3,844	3,952	3.3	27.1	2.9	24.1	32.3	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	640	640	100.0%	14.0	626	670	0.0	48.1	2.0	45.7	51.4	D
	Through												
	Right Turn	260	258	99.3%	15.2	227	273	0.1	21.5	3.5	18.7	30.2	C
	Second Right												
	Subtotal	900	898	99.8%	7.4	883	913	0.1	40.4	1.7	38.0	42.8	D
EB	U Turn												
	Second Left												
	Left Turn	730	667	91.3%	19.6	637	696	2.4	59.7	1.7	57.5	63.0	E
	Through	850	799	94.0%	24.9	760	837	1.8	7.0	0.9	5.5	8.8	A
	Right Turn												
	Second Right												
	Subtotal	1,580	1,465	92.7%	12.8	1,443	1,492	2.9	31.0	1.4	29.0	33.3	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,240	1,196	96.5%	16.1	1,165	1,215	1.3	24.7	1.8	21.6	26.6	C
	Right Turn	170	161	94.9%	9.5	142	175	0.7	17.5	1.7	14.0	19.7	B
	Second Right												
	Subtotal	1,410	1,358	96.3%	15.6	1,329	1,382	1.4	23.8	1.7	20.8	25.6	C
Total		3,890	3,721	95.7%	21.0	3,669	3,739	2.7	30.7	1.2	29.1	32.6	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 29 Research Park Dr/Richards Blvd Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	170	169	99.2%	5.3	164	178	0.1	48.6	2.6	43.6	52.8	D
	Through	30	30	99.0%	4.1	23	36	0.1	31.3	4.9	24.8	40.1	C
	Right Turn	50	49	97.6%	5.0	41	55	0.2	14.0	3.2	7.1	19.1	B
	Second Right												
	Subtotal	250	247	98.9%	2.6	243	251	0.2	39.7	2.2	37.3	44.6	D
SB	U Turn												
	Second Left												
	Left Turn	190	195	102.4%	12.4	172	217	0.3	86.1	25.5	58.7	135.1	F
	Through	10	9	89.0%	1.9	7	13	0.4	30.9	8.7	21.4	50.8	C
	Right Turn	280	274	97.9%	12.6	261	301	0.3	39.3	15.2	23.3	68.2	D
	Second Right												
	Subtotal	480	478	99.5%	6.4	468	487	0.1	58.4	20.0	38.9	97.5	E
EB	U Turn	40	42	106.0%	5.6	36	52	0.4	39.6	6.5	29.1	50.7	D
	Second Left												
	Left Turn	410	387	94.3%	15.2	363	410	1.2	51.0	8.4	39.7	66.7	D
	Through	970	944	97.3%	17.3	922	970	0.9	22.0	1.4	19.9	24.9	C
	Right Turn	70	66	94.4%	6.4	57	74	0.5	19.0	2.8	13.9	22.5	B
	Second Right												
	Subtotal	1,490	1,439	96.6%	18.3	1,415	1,468	1.3	30.2	2.5	27.1	34.9	C
WB	U Turn												
	Second Left												
	Left Turn	40	36	90.3%	7.6	22	48	0.6	75.5	13.1	50.8	94.1	E
	Through	920	864	93.9%	14.1	842	893	1.9	131.7	13.1	101.0	144.2	F
	Right Turn	40	37	91.3%	5.3	29	44	0.6	58.5	8.7	44.7	72.2	E
	Second Right												
	Subtotal	1,000	937	93.7%	13.7	917	965	2.0	126.8	12.5	97.7	139.1	F
Total		3,220	3,100	96.3%	22.8	3,071	3,138	2.1	64.5	5.0	56.4	71.3	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 1 Mitigated
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through	60	56	93.3%	0.5	55	57	0.5	9.2	0.4	8.6	10.1	A
	Right Turn												
	Second Right												
	Subtotal												
SB	Through	10	8	79.0%	0.3	7	8	0.7	61.1	95.0	11.7	310.4	F
	Right Turn												
	Second Right												
	Subtotal												
NE	Through	60	56	92.7%	0.8	54	57	0.6	13.2	1.1	12.1	15.5	B
	Right Turn												
	Second Right												
	Subtotal												
EB	U Turn	1,830	1,679	91.7%	15.3	1,655	1,699	3.6	2.3	0.2	2.0	2.9	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal												
WB	U Turn	270	266	98.5%	13.0	246	282	0.2	12.3	8.0	4.2	27.2	B
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal												
Total		3,170	2,934	92.5%	22.7	2,898	2,968	4.3	11.2	4.5	6.5	19.8	B

**A.6 – VISSIM CALCULATION SHEETS – CUMULATIVE PLUS PROJECT
ACCESS SCENARIO 2**



Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 20		D St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	10	11	113.0%	2.5	6	15	0.4	34.4	7.4	24.0	48.6	C
	Through	20	18	91.0%	3.7	12	25	0.4	36.9	9.7	18.3	45.2	D
	Right Turn	20	19	94.0%	2.5	15	23	0.3	8.3	4.0	4.6	16.7	A
	Second Right												
	Subtotal	50	48	96.6%	1.1	47	50	0.2	25.7	4.6	19.4	36.4	C
SB	U Turn Second Left												
	Left Turn	110	109	98.8%	4.1	101	116	0.1	70.6	7.5	61.8	82.8	E
	Through	40	39	97.8%	4.1	31	46	0.1	52.8	9.2	36.8	70.8	D
	Right Turn	20	20	100.0%	3.9	13	24	0.0	23.0	5.7	12.1	31.7	C
	Second Right												
	Subtotal	170	168	98.7%	2.1	163	170	0.2	60.9	6.1	53.6	72.5	E
EB	U Turn Second Left												
	Left Turn	20	20	97.5%	3.0	16	27	0.1	40.7	6.5	31.6	50.6	D
	Through	200	207	103.6%	4.2	202	215	0.5	16.3	4.8	10.5	23.7	B
	Right Turn	20	19	96.5%	3.8	14	25	0.2	9.2	3.8	4.3	18.2	A
	Second Right												
	Subtotal	240	246	102.5%	4.2	240	252	0.4	17.7	4.1	13.1	24.0	B
WB	U Turn Second Left												
	Left Turn	30	27	90.7%	4.0	22	35	0.5	47.1	8.1	34.3	60.0	D
	Through	740	594	80.2%	22.3	559	620	5.7	11.0	1.0	9.6	12.5	B
	Right Turn	60	69	115.0%	8.0	57	84	1.1	9.4	2.0	6.1	12.1	A
	Second Right												
	Subtotal	830	690	83.1%	22.2	643	715	5.1	12.3	0.8	11.0	13.6	B
Total		1,290	1,152	89.3%	25.5	1,102	1,179	4.0	21.1	1.5	19.1	23.4	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	650	509	78.4%	19.4	489	544	5.8	25.1	1.7	22.3	27.8	C
	Through	120	95	79.5%	11.4	72	108	2.4	24.4	2.5	20.5	27.5	C
	Right Turn	430	322	75.0%	25.3	277	350	5.5	7.8	1.6	5.4	11.1	A
	Second Right												
	Subtotal	1,200	927	77.3%	24.4	887	957	8.4	19.0	1.5	16.9	21.4	B
SB	U Turn Second Left												
	Left Turn	10	12	121.0%	5.4	1	20	0.6	28.7	9.7	16.7	49.4	C
	Through	180	173	95.8%	6.2	163	183	0.6	78.2	10.0	62.5	92.9	E
	Right Turn	20	22	109.5%	4.5	13	29	0.4	29.2	5.2	19.9	39.2	C
	Second Right												
	Subtotal	210	207	98.3%	2.1	202	209	0.2	70.4	8.9	56.7	81.8	E
EB	U Turn Second Left												
	Left Turn	10	10	98.0%	2.9	5	15	0.1	34.8	10.3	21.9	50.1	C
	Through	30	27	90.3%	5.5	20	38	0.5	70.2	18.5	47.4	98.9	E
	Right Turn	290	300	103.4%	10.7	285	321	0.6	18.5	1.5	15.8	20.8	B
	Second Right												
	Subtotal	330	337	102.1%	6.6	331	352	0.4	23.4	3.1	19.8	28.9	C
WB	U Turn Second Left												
	Left Turn	210	201	95.5%	9.5	183	213	0.7	97.5	7.5	83.5	111.3	F
	Through	160	160	100.0%	10.3	140	169	0.0	87.3	9.0	74.5	101.3	F
	Right Turn	20	19	96.5%	4.9	13	27	0.2	41.9	12.0	24.1	59.7	D
	Second Right												
	Subtotal	390	380	97.4%	8.2	367	391	0.5	90.4	7.5	77.0	103.0	F
Total		2,130	1,850	86.9%	29.8	1,795	1,897	6.3	40.2	1.6	37.4	42.5	D

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	10	9	88.0%	2.6	3	12	0.4	23.7	16.4	11.8	63.6	C
	Through												
	Right Turn	190	188	98.7%	4.1	181	194	0.2	47.0	26.0	22.7	109.0	D
	Second Right												
	Subtotal	200	196	98.2%	5.3	184	202	0.3	46.2	25.7	22.4	107.5	D
EB	U Turn												
	Second Left												
	Left Turn	210	168	80.1%	17.7	133	195	3.0	1.8	1.3	0.9	4.8	A
	Through	260	193	74.3%	13.3	172	214	4.4	1.2	0.5	0.6	2.0	A
	Right Turn												
	Second Right												
	Subtotal	470	361	76.9%	24.9	319	393	5.3	1.5	0.8	0.8	2.8	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	200	197	98.4%	4.6	188	203	0.2	47.9	13.7	23.6	69.6	D
	Right Turn	10	9	88.0%	3.2	6	15	0.4	20.9	10.3	4.4	36.6	C
	Second Right												
	Subtotal	210	206	97.9%	3.2	200	209	0.3	46.8	13.3	23.1	67.8	D
Total		880	763	86.7%	24.1	725	792	4.1	25.1	9.3	12.2	45.4	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	80	51	64.1%	4.8	44	60	3.5	126.2	13.9	112.3	146.9	F
	Through	10	6	56.0%	2.5	2	10	1.6	187.2	118.7	22.5	336.3	F
	Right Turn	170	112	65.6%	12.6	91	130	4.9	172.3	18.3	139.4	194.3	F
	Second Right												
	Subtotal	260	168	64.8%	16.2	141	193	6.3	158.1	16.1	135.8	181.2	F
SB	U Turn Second Left												
	Left Turn	130	99	76.5%	9.8	85	110	2.9	175.2	19.9	150.8	214.2	F
	Through	80	59	74.3%	5.4	49	67	2.5	142.7	17.1	105.0	162.0	F
	Right Turn	130	99	75.9%	5.6	84	102	2.9	180.2	10.7	170.1	204.4	F
	Second Right												
	Subtotal	340	258	75.7%	13.2	228	277	4.8	170.1	10.7	160.1	189.4	F
EB	U Turn Second Left												
	Left Turn	50	50	99.4%	9.1	36	63	0.0	59.2	9.7	41.4	69.5	E
	Through	470	467	99.4%	13.1	447	487	0.1	26.9	1.2	24.4	28.9	C
	Right Turn	160	155	96.8%	11.2	140	170	0.4	23.4	1.4	21.5	25.4	C
	Second Right												
	Subtotal	680	672	98.8%	12.6	658	692	0.3	28.6	1.1	26.8	30.6	C
WB	U Turn Second Left												
	Left Turn	380	290	76.3%	8.0	280	301	4.9	125.0	5.9	114.3	135.2	F
	Through	990	773	78.1%	27.8	720	804	7.3	23.8	1.6	21.2	25.5	C
	Right Turn	30	27	89.0%	6.5	20	42	0.6	7.3	4.0	3.3	17.4	A
	Second Right												
	Subtotal	1,400	1,090	77.9%	31.0	1,039	1,129	8.8	50.4	1.5	47.7	52.5	D
Total		2,680	2,188	81.6%	37.5	2,139	2,257	10.0	66.1	2.5	62.9	71.3	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	270	267	98.9%	1.7	264	269	0.2	0.9	0.1	0.7	1.2	A
	Second Right												
	Subtotal	270	267	98.9%	1.7	264	269	0.2	0.9	0.1	0.7	1.2	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	910	621	68.3%	42.0	550	688	10.4	253.5	24.1	215.1	305.9	F
	Second Right												
	Subtotal	910	621	68.3%	42.0	550	688	10.4	253.5	24.1	215.1	305.9	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	590	526	89.2%	28.1	475	566	2.7	0.1	0.0	0.1	0.1	A
	Right Turn	210	185	88.1%	10.9	172	212	1.8	0.3	0.1	0.2	0.4	A
	Second Right												
	Subtotal	800	711	88.9%	28.4	659	746	3.2	0.1	0.0	0.1	0.2	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	500	476	95.2%	20.7	441	504	1.1	45.0	11.9	29.2	69.0	D
	Right Turn	880	854	97.1%	22.1	811	882	0.9	6.2	0.5	5.7	7.2	A
	Second Right												
	Subtotal	1,380	1,330	96.4%	29.8	1,286	1,377	1.4	20.1	4.3	14.9	28.7	C
Total		3,360	2,930	87.2%	42.8	2,868	2,999	7.7	62.8	3.8	56.5	70.7	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	800	734	91.8%	10.3	717	748	2.4	119.5	2.7	115.1	122.7	F
	Through												
	Right Turn	290	266	91.8%	19.5	230	290	1.4	98.0	5.6	87.1	105.5	F
	Second Right												
	Subtotal	1,090	1,000	91.8%	12.8	973	1,015	2.8	113.8	2.8	107.5	116.8	F
EB	U Turn												
	Second Left												
	Left Turn	300	266	88.6%	14.4	230	278	2.0	84.6	3.5	76.2	88.4	F
	Through	560	527	94.1%	18.1	498	564	1.4	56.1	4.1	50.0	61.8	E
	Right Turn												
	Second Right												
	Subtotal	860	793	92.2%	26.3	756	840	2.3	65.6	3.3	59.0	69.7	E
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,090	1,065	97.7%	30.9	1,011	1,108	0.8	53.3	3.8	48.2	61.3	D
	Right Turn	100	90	90.1%	8.1	76	99	1.0	40.9	4.9	31.5	47.0	D
	Second Right												
	Subtotal	1,190	1,155	97.1%	30.6	1,110	1,205	1.0	52.3	3.7	47.9	60.1	D
Total		3,140	2,948	93.9%	40.8	2,895	3,036	3.5	76.7	1.8	74.6	81.0	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 29		Research Park Dr/Richards Blvd							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	70	70	99.6%	5.4	65	82	0.0	71.5	5.8	64.7	80.1	E
	Through	10	11	111.0%	2.3	8	16	0.3	31.5	9.5	15.3	49.4	C
	Right Turn	50	47	93.4%	4.7	36	52	0.5	21.0	4.6	14.8	27.1	C
	Second Right												
	Subtotal	130	128	98.1%	2.9	124	133	0.2	49.5	4.6	44.7	57.7	D
SB	U Turn												
	Second Left												
	Left Turn	30	29	97.0%	3.2	23	32	0.2	60.8	15.0	45.5	96.0	E
	Through	30	30	98.7%	5.3	22	40	0.1	64.8	20.3	47.0	115.1	E
	Right Turn	260	259	99.7%	10.3	246	279	0.0	94.4	45.2	47.8	204.4	F
	Second Right												
	Subtotal	320	318	99.4%	9.6	308	341	0.1	88.2	38.7	48.0	182.3	F
EB	U Turn	20	19	95.5%	3.3	15	23	0.2	41.2	6.3	35.7	53.9	D
	Second Left												
	Left Turn	210	196	93.5%	12.4	180	217	1.0	71.8	4.8	63.9	77.5	E
	Through	950	881	92.7%	12.7	862	903	2.3	28.5	1.8	25.8	30.7	C
	Right Turn	180	163	90.8%	7.0	153	174	1.3	29.2	2.9	25.8	33.1	C
	Second Right												
	Subtotal	1,360	1,259	92.6%	17.3	1,240	1,283	2.8	35.5	1.9	32.8	38.7	D
WB	U Turn												
	Second Left												
	Left Turn	60	58	96.2%	5.8	48	66	0.3	123.7	12.5	106.9	144.2	F
	Through	840	801	95.4%	30.5	767	845	1.3	109.7	8.6	92.0	118.7	F
	Right Turn	190	171	90.1%	11.9	156	197	1.4	78.7	6.4	64.2	88.3	E
	Second Right												
	Subtotal	1,090	1,030	94.5%	23.2	1,005	1,069	1.8	105.4	7.7	88.9	113.6	F
Total		2,900	2,735	94.3%	34.8	2,683	2,794	3.1	68.6	6.1	59.2	81.4	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through	10	8	80.0%	0.0	8	8	0.7	7.3	1.6	5.7	10.3	A
	Right Turn												
	Second Right												
	Subtotal	10	8	80.0%	0.0	8	8	0.7	7.3	1.6	5.7	10.3	A
SB	Through	10	8	79.0%	0.3	7	8	0.7	10.0	2.8	7.5	15.7	A
	Right Turn												
	Second Right												
	Subtotal	10	8	79.0%	0.3	7	8	0.7	10.0	2.8	7.5	15.7	A
NE	Through	60	60	99.7%	0.8	59	61	0.0	10.8	0.7	10.0	12.6	B
	Right Turn												
	Second Right												
	Subtotal	60	60	99.7%	0.8	59	61	0.0	10.8	0.7	10.0	12.6	B
EB	U Turn	730	643	88.1%	28.6	589	679	3.3	0.7	0.1	0.6	0.9	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	770	680	88.3%	25.8	635	709	3.3	0.7	0.1	0.6	0.9	A
WB	U Turn	1,010	290	76.4%	8.0	276	302	4.9	62.0	4.5	55.3	69.3	F
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	1,410	1,098	77.9%	30.7	1,051	1,135	8.8	25.6	0.9	24.2	27.2	D
Total		2,260	1,854	82.0%	39.5	1,804	1,920	8.9	15.9	0.4	15.1	16.3	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	10	10	97.0%	2.9	6	15	0.1	29.1	10.9	10.7	53.5	C
	Through	10	20	202.0%	2.0	17	24	2.6	35.5	4.5	29.6	43.6	D
	Right Turn	20	18	90.5%	2.5	15	22	0.4	6.1	1.0	4.5	7.9	A
	Second Right Subtotal	40	48	120.0%	0.8	47	50	1.2	23.2	2.3	19.7	27.0	C
SB	U Turn Second Left												
	Left Turn	60	111	184.7%	7.1	97	119	5.5	49.1	4.3	42.5	54.3	D
	Through	40	38	95.3%	6.0	29	48	0.3	40.5	3.9	31.7	45.2	D
	Right Turn	20	20	98.5%	3.2	15	25	0.1	18.3	2.7	14.1	21.6	B
	Second Right Subtotal	120	169	140.5%	3.4	163	174	4.0	43.6	2.9	39.7	46.8	D
EB	U Turn Second Left												
	Left Turn	10	19	194.0%	5.4	13	32	2.5	33.6	5.5	25.2	42.6	C
	Through	170	204	119.8%	4.5	196	211	2.5	13.7	1.7	11.6	16.4	B
	Right Turn	30	21	70.3%	4.4	16	30	1.8	9.7	3.2	6.2	15.9	A
	Second Right Subtotal	210	244	116.3%	3.3	239	249	2.3	15.0	1.8	13.3	19.1	B
WB	U Turn Second Left												
	Left Turn	30	30	100.7%	5.3	21	37	0.0	36.1	4.0	28.7	41.6	D
	Through	550	678	123.3%	19.0	638	702	5.2	14.1	1.3	11.8	15.9	B
	Right Turn	70	71	102.0%	10.4	57	87	0.2	10.4	2.0	7.7	14.7	B
	Second Right Subtotal	650	780	120.0%	17.5	755	802	4.9	14.6	1.3	12.2	16.5	B
Total		1,020	1,241	121.6%	17.8	1,208	1,266	6.6	19.0	0.7	17.9	20.0	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	520	591	113.6%	16.6	563	609	3.0	36.5	2.3	32.1	39.7	D
	Through	100	111	110.8%	11.4	94	133	1.1	33.8	4.1	28.4	43.1	C
	Right Turn	420	409	97.3%	23.8	367	447	0.6	17.7	1.4	15.5	20.4	B
	Second Right Subtotal	1,040	1,110	106.7%	24.1	1,079	1,162	2.1	29.3	1.9	25.9	31.8	C
SB	U Turn Second Left												
	Left Turn	10	9	92.0%	2.4	6	13	0.3	28.1	8.5	15.2	45.3	C
	Through	150	176	117.1%	6.7	162	182	2.0	55.2	2.7	50.0	58.1	E
	Right Turn	20	22	108.5%	4.2	16	29	0.4	23.7	3.0	19.8	29.6	C
	Second Right Subtotal	180	207	114.7%	3.0	203	213	1.9	50.7	2.5	46.6	53.8	D
EB	U Turn Second Left												
	Left Turn	10	8	83.0%	2.8	3	11	0.6	26.9	20.1	12.5	81.5	C
	Through	20	30	150.5%	4.8	24	37	2.0	41.9	9.3	31.1	58.1	D
	Right Turn	220	295	134.1%	7.8	279	307	4.7	16.0	1.1	14.1	17.7	B
	Second Right Subtotal	250	333	133.4%	7.2	322	347	4.9	18.7	1.1	17.4	20.8	B
WB	U Turn Second Left												
	Left Turn	250	209	83.6%	7.9	195	219	2.7	53.0	6.2	43.4	61.4	D
	Through	110	161	146.6%	5.7	153	169	4.4	52.3	6.5	37.8	60.8	D
	Right Turn	10	18	181.0%	3.2	13	24	2.2	25.2	4.5	18.7	33.2	C
	Second Right Subtotal	370	388	104.9%	5.4	382	400	0.9	51.4	4.5	44.1	57.4	D
Total		1,840	2,038	110.8%	20.3	2,018	2,082	4.5	34.0	1.5	30.8	36.0	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	10	9	86.0%	3.6	3	15	0.5	16.0	4.4	10.8	22.2	B
	Through												
	Right Turn	170	87	51.2%	7.8	74	102	7.3	9.0	1.4	7.2	12.5	A
	Second Right												
	Subtotal	180	96	53.1%	5.7	86	105	7.2	9.7	1.2	8.6	12.9	A
EB	U Turn												
	Second Left												
	Left Turn	250	208	83.0%	19.5	178	241	2.8	28.0	2.4	24.5	31.9	C
	Through	200	242	121.1%	14.7	220	268	2.8	1.9	0.6	0.8	2.6	A
	Right Turn												
	Second Right												
	Subtotal	450	450	99.9%	24.2	405	486	0.0	13.9	1.7	12.1	17.1	B
WB	U Turn												
	Second Left												
	Left Turn												
	Through	200	93	46.3%	6.3	79	98	8.9	22.6	3.1	18.3	28.8	C
	Right Turn	10	9	89.0%	2.6	4	13	0.4	12.0	3.1	7.6	18.5	B
	Second Right												
	Subtotal	210	101	48.3%	7.3	88	111	8.7	21.8	2.8	18.3	27.2	C
Total		840	647	77.0%	26.1	591	683	7.1	14.5	1.4	12.9	16.8	B

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	60	68	112.5%	7.7	53	76	0.9	38.8	3.7	32.9	43.8	D	
	Through	20	10	49.5%	1.9	6	12	2.6	19.1	4.3	12.5	25.8	B	
	Right Turn	240	166	69.1%	5.1	160	175	5.2	11.1	1.0	9.9	12.9	B	
	Second Right													
	Subtotal	320	243	76.0%	4.6	235	250	4.6	19.1	1.5	17.1	21.6	B	
SB	U Turn Second Left													
	Left Turn	110	132	119.5%	12.2	107	152	2.0	43.3	7.2	36.5	58.6	D	
	Through	60	78	130.3%	7.1	69	90	2.2	59.6	18.1	48.1	104.7	E	
	Right Turn	320	129	40.3%	11.2	117	151	12.7	58.4	17.3	40.9	102.1	E	
	Second Right													
	Subtotal	490	339	69.1%	4.3	330	344	7.4	52.9	13.0	40.9	85.2	D	
EB	U Turn Second Left													
	Left Turn	50	44	88.4%	4.4	36	50	0.8	58.2	6.1	48.0	68.1	E	
	Through	530	475	89.7%	21.7	424	499	2.4	10.6	0.9	9.2	12.0	B	
	Right Turn	40	160	399.5%	14.0	140	189	12.0	8.9	1.0	7.6	10.6	A	
	Second Right													
	Subtotal	620	679	109.6%	13.7	660	699	2.3	13.3	1.2	11.2	15.0	B	
WB	U Turn Second Left													
	Left Turn	770	361	46.9%	18.1	323	384	17.2	139.0	16.0	122.4	162.9	F	
	Through	660	914	138.5%	26.3	860	957	9.0	65.8	5.1	56.9	73.4	E	
	Right Turn	20	28	139.0%	4.5	20	34	1.6	19.0	3.8	15.3	27.3	B	
	Second Right													
	Subtotal	1,450	1,303	89.9%	29.3	1,264	1,366	4.0	85.3	4.7	76.0	93.4	F	
Total		2,880	2,564	89.0%	30.8	2,532	2,636	6.1	55.6	3.1	50.1	59.5	E	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	250	241	96.3%	13.8	216	269	0.6	80.4	9.0	66.6	92.6	F
	Through												
	Right Turn	850	817	96.1%	21.2	784	859	1.2	178.1	17.3	147.3	204.3	F
	Second Right												
	Subtotal	1,100	1,057	96.1%	26.5	1,000	1,095	1.3	155.8	15.3	129.9	179.0	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	740	589	79.6%	26.5	551	631	5.9	21.2	1.4	18.7	23.3	C
	Right Turn	190	207	109.1%	21.3	183	241	1.2	5.0	0.4	4.5	5.7	A
	Second Right												
	Subtotal	930	796	85.6%	23.0	765	827	4.6	17.0	1.1	15.3	18.9	B
WB	U Turn												
	Second Left												
	Left Turn	790	893	113.1%	23.0	855	923	3.6	42.4	8.8	33.2	59.0	D
	Through	640	508	79.3%	21.6	471	535	5.5	30.3	2.9	24.1	34.3	C
	Right Turn												
	Second Right												
	Subtotal	1,430	1,401	98.0%	37.3	1,326	1,442	0.8	38.0	5.3	31.7	46.4	D
Total		3,460	3,255	94.1%	42.3	3,186	3,323	3.5	71.2	4.2	66.5	77.8	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	750	793	105.7%	17.8	767	825	1.5	54.7	4.7	51.2	66.5	D
	Through												
	Right Turn	260	292	112.2%	16.7	256	315	1.9	28.0	4.2	23.0	34.3	C
	Second Right												
	Subtotal	1,010	1,085	107.4%	5.1	1,078	1,092	2.3	47.5	4.3	44.2	58.2	D
EB	U Turn												
	Second Left												
	Left Turn	350	300	85.8%	25.3	250	335	2.8	78.1	3.6	72.0	85.1	E
	Through	640	531	83.0%	20.6	499	557	4.5	5.4	0.6	4.6	6.5	A
	Right Turn												
	Second Right												
	Subtotal	990	832	84.0%	31.3	791	881	5.2	31.7	2.4	28.6	37.2	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,170	1,110	94.9%	21.2	1,076	1,149	1.8	14.4	1.0	12.6	15.5	B
	Right Turn	100	93	93.3%	11.1	79	119	0.7	7.9	0.9	6.7	9.8	A
	Second Right												
	Subtotal	1,270	1,203	94.7%	21.9	1,173	1,238	1.9	13.9	0.9	12.2	15.0	B
Total		3,270	3,120	95.4%	33.5	3,095	3,205	2.7	30.3	2.0	28.5	35.6	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	70	71	101.0%	6.0	60	80	0.1	47.4	4.1	40.9	53.4	D
	Through	10	10	101.0%	2.7	7	15	0.0	21.6	6.4	13.9	36.4	C
	Right Turn	50	47	94.0%	5.2	36	53	0.4	8.6	2.8	6.4	16.1	A
	Second Right												
	Subtotal	130	128	98.3%	2.2	124	130	0.2	31.0	2.8	27.0	35.7	C
SB	U Turn Second Left												
	Left Turn	60	29	48.3%	5.3	21	37	4.6	36.1	7.4	27.6	47.0	D
	Through	30	29	95.3%	5.3	19	37	0.3	35.9	3.5	27.9	40.2	D
	Right Turn	370	261	70.6%	5.9	249	270	6.1	25.4	3.4	20.3	30.0	C
	Second Right												
	Subtotal	460	319	69.3%	3.5	311	324	7.2	27.3	3.3	22.2	31.0	C
EB	U Turn Second Left	20	20	98.5%	4.6	11	26	0.1	28.2	6.0	18.5	36.0	C
	Left Turn	170	209	122.6%	19.3	183	251	2.8	39.0	6.3	30.9	47.4	D
	Through	1,020	930	91.1%	20.3	898	965	2.9	18.0	1.8	15.3	21.8	B
	Right Turn	180	170	94.6%	11.1	146	191	0.7	15.5	1.0	13.7	16.9	B
	Second Right												
	Subtotal	1,390	1,328	95.5%	22.1	1,293	1,377	1.7	21.2	1.5	18.8	23.4	C
WB	U Turn Second Left												
	Left Turn	60	59	98.7%	6.3	49	69	0.1	72.8	11.1	54.7	85.9	E
	Through	810	843	104.0%	30.3	806	898	1.1	53.8	10.9	36.4	71.3	D
	Right Turn	190	187	98.5%	19.0	158	225	0.2	30.4	8.0	17.0	42.1	C
	Second Right												
	Subtotal	1,060	1,089	102.7%	30.5	1,045	1,139	0.9	50.8	10.2	34.0	67.2	D
Total		3,040	2,864	94.2%	26.8	2,835	2,909	3.2	33.5	3.6	27.6	40.0	C

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
AM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through	10	8	81.0%	0.3	8	9	0.6	6.1	0.2	5.8	6.6	A
	Right Turn												
	Second Right												
	Subtotal	10	8	81.0%	0.3	8	9	0.6	6.1	0.2	5.8	6.6	A
SB	Through	10	8	81.0%	0.3	8	9	0.6	24.7	15.0	12.2	63.1	C
	Right Turn												
	Second Right												
	Subtotal	10	8	81.0%	0.3	8	9	0.6	24.7	15.0	12.2	63.1	C
NE	Through	60	60	99.8%	0.3	59	60	0.0	9.4	0.3	8.9	10.0	A
	Right Turn												
	Second Right												
	Subtotal	60	60	99.8%	0.3	59	60	0.0	9.4	0.3	8.9	10.0	A
EB	U Turn	860	733	85.2%	22.7	699	762	4.5	0.3	0.0	0.3	0.4	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	880	773	87.9%	26.1	734	808	3.7	0.4	0.0	0.3	0.4	A
WB	U Turn	770	364	47.3%	17.7	325	383	17.1	79.2	14.7	61.4	103.6	F
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	1,490	1,303	87.5%	29.6	1,261	1,364	5.0	58.1	4.2	50.7	65.9	F
Total		2,450	2,152	87.9%	37.8	2,074	2,216	6.2	35.8	2.7	31.8	40.9	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS	
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum		
NB	U Turn Second Left													
	Left Turn	40	40	101.0%	4.4	32	46	0.1	58.8	12.9	36.1	72.4	E	
	Through	60	61	101.5%	4.7	52	68	0.1	72.4	14.0	55.2	100.3	E	
	Right Turn	80	79	98.3%	5.5	72	88	0.2	34.9	6.1	28.2	44.9	C	
	Second Right Subtotal	180	180	99.9%	3.8	174	185	0.0	53.2	9.5	42.6	69.9	D	
SB	U Turn Second Left													
	Left Turn	100	61	60.7%	22.8	32	93	4.4	227.9	221.5	99.4	844.6	F	
	Through	50	32	64.8%	13.4	14	53	2.7	192.6	276.8	52.1	976.6	F	
	Right Turn	30	18	60.3%	7.2	7	27	2.4	141.0	159.9	38.8	460.3	F	
	Second Right Subtotal	180	111	61.8%	41.9	54	159	5.7	204.5	219.5	78.9	817.8	F	
EB	U Turn Second Left													
	Left Turn	20	17	87.0%	3.3	13	25	0.6	57.8	9.1	45.6	76.4	E	
	Through	580	466	80.4%	35.6	431	548	5.0	190.2	19.3	158.2	213.9	F	
	Right Turn	70	55	79.1%	5.6	46	62	1.8	109.7	13.9	88.0	130.7	F	
	Second Right Subtotal	670	539	80.5%	36.1	506	621	5.3	177.7	17.8	149.0	199.7	F	
WB	U Turn Second Left													
	Left Turn	80	54	66.9%	6.7	42	66	3.2	68.5	6.7	59.8	82.1	E	
	Through	520	317	60.9%	19.0	285	348	9.9	18.5	2.6	14.8	22.0	B	
	Right Turn	80	76	94.4%	6.3	65	85	0.5	17.7	1.9	15.5	20.8	B	
	Second Right Subtotal	680	446	65.5%	22.8	409	485	9.9	24.4	2.3	20.1	27.5	C	
Total		1,710	1,276	74.6%	27.1	1,240	1,314	11.2	106.8	14.5	87.9	138.1	F	

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	430	248	57.6%	23.6	210	277	9.9	34.7	4.5	29.0	42.2	C
	Through	130	75	58.0%	12.4	51	93	5.4	32.5	2.8	28.7	36.8	C
	Right Turn	480	281	58.5%	17.7	250	307	10.2	10.8	2.3	8.2	15.3	B
	Second Right Subtotal	1,040	604	58.1%	32.4	552	638	15.2	23.3	2.7	19.3	26.9	C
SB	U Turn Second Left												
	Left Turn	10	9	91.0%	3.1	3	14	0.3	43.5	29.0	10.6	116.9	D
	Through	320	276	86.3%	23.3	238	310	2.5	175.4	14.9	148.6	195.5	F
	Right Turn	40	37	91.8%	6.6	23	45	0.5	79.3	13.7	56.3	106.6	E
	Second Right Subtotal	370	322	87.0%	21.6	292	361	2.6	160.7	13.0	136.2	178.8	F
EB	U Turn Second Left												
	Left Turn	20	14	72.0%	3.3	11	20	1.4	48.1	15.9	25.0	72.7	D
	Through	40	35	86.5%	4.7	27	40	0.9	83.3	11.0	71.5	107.4	F
	Right Turn	700	560	80.1%	18.6	541	603	5.6	28.3	2.0	24.9	31.9	C
	Second Right Subtotal	760	609	80.2%	18.2	590	654	5.8	32.0	1.9	29.2	35.7	C
WB	U Turn Second Left												
	Left Turn	290	213	73.4%	5.2	206	219	4.9	119.4	5.3	112.9	128.1	F
	Through	210	162	77.0%	12.8	141	180	3.6	106.0	6.2	97.8	117.9	F
	Right Turn	10	8	76.0%	2.0	5	12	0.8	29.7	17.3	17.8	69.8	C
	Second Right Subtotal	510	382	74.9%	13.9	356	396	6.1	112.1	3.8	106.2	118.5	F
Total		2,680	1,917	71.5%	35.0	1,865	1,963	15.9	66.7	2.5	61.4	71.0	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 22		F St/1st St							Signal				
Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	20	13	64.0%	2.9	8	17	1.8	46.0	9.6	34.2	60.8	D
	Through												
	Right Turn	320	195	61.0%	11.0	182	209	7.8	235.6	11.2	217.8	250.6	F
	Second Right												
	Subtotal	340	208	61.2%	10.6	193	220	8.0	224.0	11.3	203.9	236.2	F
EB	U Turn												
	Second Left												
	Left Turn	200	128	63.8%	14.9	104	148	5.7	6.1	2.0	2.7	9.7	A
	Through	330	199	60.2%	14.8	182	220	8.1	5.7	1.4	3.6	7.3	A
	Right Turn												
	Second Right												
	Subtotal	530	326	61.5%	18.9	295	363	9.8	5.8	1.3	3.3	7.6	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	190	184	96.8%	5.8	174	192	0.4	131.3	30.2	95.0	175.8	F
	Right Turn	20	21	103.0%	4.2	16	26	0.1	61.6	19.4	38.9	108.9	E
	Second Right												
	Subtotal	210	205	97.4%	5.2	198	211	0.4	124.2	28.2	92.4	162.4	F
Total		1,080	739	68.4%	26.6	692	788	11.3	100.0	7.4	90.8	110.2	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	160	52	32.3%	6.1	42	64	10.5	114.3	13.3	90.7	136.0	F
	Through	30	11	35.3%	3.2	5	14	4.3	56.7	51.9	21.6	200.3	E
	Right Turn	410	134	32.7%	9.8	121	149	16.7	159.8	5.5	151.6	166.8	F
	Second Right												
	Subtotal	600	196	32.7%	12.2	176	218	20.2	142.3	5.6	133.5	151.7	F
SB	U Turn Second Left												
	Left Turn	190	113	59.6%	10.4	95	127	6.2	230.7	28.6	194.3	301.3	F
	Through	30	18	60.7%	5.1	8	23	2.4	59.9	16.3	28.1	79.0	E
	Right Turn	180	104	57.5%	21.8	71	141	6.4	178.7	12.1	161.5	194.8	F
	Second Right												
	Subtotal	400	235	58.7%	33.2	188	280	9.3	195.4	17.3	176.3	238.1	F
EB	U Turn Second Left												
	Left Turn	100	74	74.1%	7.6	64	86	2.8	60.8	5.4	53.7	71.5	E
	Through	1,090	883	81.0%	33.5	842	928	6.6	24.0	3.3	20.0	30.4	C
	Right Turn	120	96	79.7%	15.9	74	125	2.4	21.4	3.9	17.0	30.6	C
	Second Right												
	Subtotal	1,310	1,053	80.3%	29.0	1,008	1,088	7.5	26.4	3.6	22.2	33.9	C
WB	U Turn Second Left												
	Left Turn	210	97	46.2%	6.5	86	105	9.1	225.9	16.7	198.4	249.6	F
	Through	700	446	63.7%	32.2	381	487	10.6	16.5	3.7	11.4	21.3	B
	Right Turn	100	53	53.1%	8.6	40	71	5.4	5.8	2.4	3.5	10.8	A
	Second Right												
	Subtotal	1,010	596	59.0%	41.7	520	649	14.6	49.8	4.8	42.9	56.8	D
Total		3,320	2,080	62.6%	44.3	2,033	2,147	23.9	63.1	3.7	57.8	70.1	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	160	159	99.6%	1.4	158	163	0.0	1.1	0.2	0.8	1.5	A
	Second Right												
	Subtotal	160	159	99.6%	1.4	158	163	0.0	1.1	0.2	0.8	1.5	A
SB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn	430	355	82.5%	26.8	290	388	3.8	280.9	63.2	204.6	403.6	F
	Second Right												
	Subtotal	430	355	82.5%	26.8	290	388	3.8	280.9	63.2	204.6	403.6	F
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,220	847	69.4%	30.8	797	890	11.6	0.2	0.0	0.1	0.2	A
	Right Turn	560	383	68.3%	25.3	354	438	8.2	0.4	0.1	0.3	0.5	A
	Second Right												
	Subtotal	1,780	1,230	69.1%	38.1	1,168	1,290	14.2	0.2	0.0	0.2	0.3	A
WB	U Turn												
	Second Left												
	Left Turn												
	Through	630	264	41.8%	29.2	220	311	17.3	286.9	44.0	215.8	359.8	F
	Right Turn	860	434	50.5%	22.4	403	467	16.7	2.7	0.4	2.2	3.3	A
	Second Right												
	Subtotal	1,490	698	46.8%	46.2	631	776	24.0	109.6	15.8	85.7	128.8	F
Total		3,860	2,441	63.2%	54.5	2,359	2,523	25.3	72.1	8.1	59.1	87.6	E

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	760	268	35.2%	49.6	181	339	21.7	305.2	76.0	191.8	429.4	F
	Through												
	Right Turn	290	89	30.7%	13.7	65	110	14.6	227.8	74.2	159.7	383.4	F
	Second Right												
	Subtotal	1,050	357	34.0%	59.9	246	441	26.1	285.4	70.1	184.0	406.2	F
EB	U Turn												
	Second Left												
	Left Turn	670	458	68.4%	23.8	423	484	8.9	75.6	2.7	71.1	79.7	E
	Through	710	547	77.0%	19.2	515	574	6.5	24.5	1.1	22.8	27.2	C
	Right Turn												
	Second Right												
	Subtotal	1,380	1,005	72.8%	29.1	955	1,044	10.9	47.8	2.0	43.9	51.1	D
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,200	628	52.3%	42.6	552	706	18.9	226.1	28.7	180.3	284.3	F
	Right Turn	170	88	51.7%	12.6	68	109	7.2	109.1	24.2	71.9	150.0	F
	Second Right												
	Subtotal	1,370	716	52.3%	51.9	629	802	20.3	211.9	27.1	167.3	264.5	F
Total		3,800	2,078	54.7%	77.6	1,962	2,198	31.8	145.0	18.0	120.5	176.3	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	170	163	95.6%	6.4	154	171	0.6	123.9	10.3	112.8	141.8	F
	Through	20	20	101.0%	4.6	13	30	0.0	33.2	7.2	23.4	49.9	C
	Right Turn	60	61	102.2%	9.6	46	75	0.2	18.7	3.8	12.8	25.9	B
	Second Right Subtotal	250	244	97.6%	4.7	236	250	0.4	90.2	9.1	81.2	109.5	F
SB	U Turn Second Left												
	Left Turn	200	98	49.0%	12.5	82	115	8.4	207.3	34.3	146.4	249.8	F
	Through	10	5	51.0%	2.2	2	9	1.8	121.7	128.4	4.5	362.2	F
	Right Turn	270	124	45.8%	14.5	104	147	10.4	247.9	65.7	127.4	322.0	F
	Second Right Subtotal	480	227	47.3%	24.4	194	263	13.5	227.3	45.9	151.8	277.9	F
EB	U Turn Second Left	40	23	57.8%	4.5	19	31	3.0	48.7	5.6	38.6	56.0	D
	Left Turn	390	217	55.7%	19.2	177	240	9.9	78.6	7.3	66.7	93.3	E
	Through	970	537	55.4%	42.5	492	629	15.8	18.0	2.5	14.9	21.8	B
	Right Turn	70	41	58.4%	5.3	30	49	3.9	13.2	4.3	7.4	20.0	B
	Second Right Subtotal	1,470	819	55.7%	55.3	727	916	19.3	34.8	3.8	29.8	41.4	C
WB	U Turn Second Left												
	Left Turn	40	18	45.5%	3.7	13	25	4.0	61.7	25.4	31.4	115.2	E
	Through	890	402	45.2%	33.9	348	447	19.2	347.7	36.7	270.9	391.5	F
	Right Turn	40	19	47.8%	5.5	13	26	3.8	54.1	12.9	39.1	75.8	D
	Second Right Subtotal	970	440	45.3%	38.2	379	490	20.0	323.5	35.1	251.2	363.5	F
Total		3,170	1,729	54.5%	65.0	1,606	1,814	29.1	140.8	12.8	119.6	158.7	F

Vissim Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	Through												
	Right Turn	60	60	100.0%	0.8	59	62	0.0	13.2	1.1	11.4	15.1	B
	Second Right												
	Subtotal	60	60	100.0%	0.8	59	62	0.0	13.2	1.1	11.4	15.1	B
SB	Through												
	Right Turn	10	8	79.0%	0.3	7	8	0.7	8.3	3.5	5.9	17.3	A
	Second Right												
	Subtotal	10	8	79.0%	0.3	7	8	0.7	8.3	3.5	5.9	17.3	A
NE	Through												
	Right Turn	60	60	100.5%	0.9	59	62	0.0	17.7	1.4	15.7	19.7	C
	Second Right												
	Subtotal	60	60	100.5%	0.9	59	62	0.0	17.7	1.4	15.7	19.7	C
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,660	1,109	66.8%	38.8	1,047	1,170	14.8	1.0	0.1	0.8	1.1	A
	Right Turn	30	25	82.7%	5.0	17	33	1.0	0.9	0.5	0.2	1.7	A
	Second Right												
	Subtotal	1,690	1,134	67.1%	40.9	1,074	1,197	14.8	1.0	0.1	0.8	1.1	A
WB	U Turn												
	Second Left												
	Left Turn	210	97	46.2%	6.5	86	104	9.1	170.0	11.7	152.9	189.9	F
	Through	790	492	62.3%	36.5	426	544	11.8	7.0	2.0	3.9	9.8	A
	Right Turn	60	31	50.8%	7.6	20	49	4.4	3.9	2.7	1.9	9.8	A
	Second Right												
	Subtotal	1,060	620	58.5%	42.2	542	675	15.2	32.4	2.9	28.0	37.4	D
Total		2,880	1,882	65.3%	47.7	1,804	1,970	20.5	12.7	1.1	11.3	14.6	B

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 20

D St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	40	41	103.0%	3.9	31	45	0.2	53.1	9.0	42.4	72.7	D
	Through	60	60	99.7%	6.5	47	68	0.0	57.5	9.7	47.8	75.1	E
	Right Turn	80	79	98.3%	6.1	72	90	0.2	26.5	5.8	20.8	38.6	C
	Second Right Subtotal	180	180	99.8%	2.6	175	183	0.0	42.9	6.6	34.3	57.8	D
SB	U Turn Second Left												
	Left Turn	100	99	99.2%	9.5	89	119	0.1	120.6	58.1	61.1	253.3	F
	Through	50	52	103.2%	6.4	43	63	0.2	92.1	46.5	39.3	198.5	F
	Right Turn	30	29	96.0%	2.9	24	32	0.2	57.3	44.9	18.5	170.2	E
	Second Right Subtotal	180	180	99.8%	9.0	161	192	0.0	102.7	52.4	48.4	223.7	F
EB	U Turn Second Left												
	Left Turn	20	16	78.0%	3.7	10	24	1.0	52.6	10.2	41.8	75.7	D
	Through	580	425	73.2%	17.9	403	450	6.9	214.9	14.0	190.2	241.5	F
	Right Turn	70	51	72.9%	6.5	38	61	2.4	113.8	11.5	90.0	125.8	F
	Second Right Subtotal	670	491	73.3%	19.8	465	521	7.4	199.4	12.7	176.2	223.0	F
WB	U Turn Second Left												
	Left Turn	80	79	98.8%	8.8	59	90	0.1	43.0	4.8	34.2	51.8	D
	Through	520	468	89.9%	10.3	448	481	2.4	18.0	1.1	16.4	19.5	B
	Right Turn	80	98	122.6%	9.2	81	110	1.9	13.5	2.2	10.9	18.2	B
	Second Right Subtotal	680	645	94.8%	13.3	627	665	1.4	20.4	0.9	18.8	21.7	C
Total		1,710	1,495	87.4%	32.5	1,450	1,540	5.4	91.6	8.4	81.4	109.2	F

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 21

E St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	430	394	91.7%	15.9	366	412	1.8	34.7	1.7	31.9	37.1	C
	Through	130	114	87.8%	11.0	95	133	1.4	33.9	4.0	27.2	38.3	C
	Right Turn	480	441	91.8%	24.2	402	471	1.8	14.3	1.9	12.5	17.9	B
	Second Right Subtotal	1,040	949	91.3%	20.8	924	991	2.9	25.1	1.7	23.1	27.8	C
SB	U Turn Second Left												
	Left Turn	10	10	96.0%	3.9	3	17	0.1	50.4	53.5	11.7	199.1	D
	Through	320	289	90.3%	14.0	270	313	1.8	155.9	14.4	127.8	177.8	F
	Right Turn	40	37	91.5%	6.3	27	43	0.5	77.0	8.3	59.5	87.8	E
	Second Right Subtotal	370	335	90.6%	14.8	316	360	1.9	144.5	12.9	120.6	164.5	F
EB	U Turn Second Left												
	Left Turn	20	15	75.5%	3.0	10	19	1.2	46.9	17.1	28.2	81.8	D
	Through	40	34	84.5%	4.2	29	42	1.0	75.1	22.1	45.5	117.4	E
	Right Turn	700	558	79.7%	18.8	528	579	5.7	34.9	2.7	30.1	38.8	C
	Second Right Subtotal	760	607	79.9%	19.9	576	631	5.8	37.5	2.9	32.9	42.2	D
WB	U Turn Second Left												
	Left Turn	290	278	96.0%	7.5	266	293	0.7	80.4	11.5	62.1	99.8	F
	Through	210	210	100.0%	13.9	184	239	0.0	54.2	4.5	46.5	61.0	D
	Right Turn	10	8	82.0%	3.1	4	13	0.6	21.4	9.9	6.9	37.8	C
	Second Right Subtotal	510	496	97.3%	12.2	481	518	0.6	68.5	7.6	55.8	79.4	E
Total		2,680	2,388	89.1%	46.3	2,317	2,467	5.8	54.0	3.0	49.9	59.1	D

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 22

F St/1st St

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	20	21	105.0%	4.2	15	29	0.2	44.1	26.5	16.1	106.1	D
	Through												
	Right Turn	320	138	43.2%	13.6	117	164	12.0	59.8	37.0	14.5	121.9	E
	Second Right												
	Subtotal	340	159	46.8%	15.3	134	181	11.4	57.6	34.3	15.3	113.0	E
EB	U Turn												
	Second Left												
	Left Turn	200	185	92.5%	14.6	163	210	1.1	26.5	2.2	21.9	29.7	C
	Through	330	300	90.8%	18.5	267	325	1.7	11.4	0.6	10.5	12.5	B
	Right Turn												
	Second Right												
	Subtotal	530	485	91.5%	24.5	441	515	2.0	17.2	1.0	15.3	18.6	B
WB	U Turn												
	Second Left												
	Left Turn												
	Through	190	79	41.8%	7.7	69	91	9.5	46.2	15.6	27.0	68.3	D
	Right Turn	20	20	99.0%	5.7	11	30	0.0	29.2	12.5	12.2	51.5	C
	Second Right												
	Subtotal	210	99	47.2%	8.3	90	118	8.9	42.9	14.4	25.2	62.5	D
Total		1,080	743	68.8%	32.0	690	784	11.2	29.1	9.2	16.8	43.8	C

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 25

Olive Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn Second Left												
	Left Turn	160	82	51.0%	4.5	76	88	7.1	41.4	3.7	34.9	46.5	D
	Through	30	17	56.3%	3.6	11	24	2.7	27.2	7.2	14.0	36.4	C
	Right Turn	410	406	99.0%	9.1	395	422	0.2	29.2	3.5	24.0	36.2	C
	Second Right												
	Subtotal	600	505	84.1%	9.7	488	522	4.1	31.2	3.3	26.1	37.9	C
SB	U Turn Second Left												
	Left Turn	190	188	99.1%	9.9	172	204	0.1	64.4	18.8	49.2	108.5	E
	Through	30	29	97.3%	2.9	26	36	0.1	42.4	5.3	34.4	50.5	D
	Right Turn	180	182	101.1%	12.7	161	197	0.1	47.6	8.8	37.0	68.8	D
	Second Right												
	Subtotal	400	399	99.8%	4.9	392	409	0.0	55.5	12.7	46.7	87.9	E
EB	U Turn Second Left												
	Left Turn	100	79	79.2%	6.9	70	91	2.2	85.2	9.1	69.2	97.1	F
	Through	1,090	945	86.7%	29.6	896	988	4.6	29.0	2.8	23.2	32.3	C
	Right Turn	120	100	83.7%	14.9	83	136	1.9	24.9	2.5	19.4	28.3	C
	Second Right												
	Subtotal	1,310	1,124	85.8%	28.8	1,074	1,164	5.3	32.6	3.2	26.3	36.3	C
WB	U Turn Second Left												
	Left Turn	210	197	93.8%	9.3	179	210	0.9	209.0	79.3	89.0	312.5	F
	Through	700	687	98.1%	22.1	647	720	0.5	27.6	7.1	17.9	41.0	C
	Right Turn	100	97	97.0%	11.1	82	118	0.3	8.8	2.4	5.2	13.5	A
	Second Right												
	Subtotal	1,010	981	97.1%	19.1	940	1,002	0.9	62.5	18.1	34.4	93.1	E
Total		3,320	3,009	90.6%	40.1	2,937	3,066	5.5	45.1	5.6	35.5	54.1	D

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 27

I-80 WB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	160	165	103.1%	12.3	144	177	0.4	58.5	4.4	53.8	67.5	E
	Through												
	Right Turn	430	425	98.9%	13.6	410	443	0.2	23.4	5.6	18.7	38.0	C
	Second Right												
	Subtotal	590	590	100.0%	5.9	579	600	0.0	33.3	4.8	28.6	44.8	C
EB	U Turn												
	Second Left												
	Left Turn												
	Through	1,220	1,125	92.2%	24.6	1,088	1,165	2.8	24.8	1.6	22.9	28.4	C
	Right Turn	560	507	90.5%	21.3	474	549	2.3	16.9	4.5	12.6	26.0	B
	Second Right												
	Subtotal	1,780	1,632	91.7%	26.3	1,588	1,668	3.6	22.4	2.4	19.8	27.7	C
WB	U Turn												
	Second Left												
	Left Turn	860	830	96.5%	27.1	797	881	1.0	39.6	5.0	34.0	50.5	D
	Through	630	619	98.3%	16.9	594	645	0.4	5.5	3.1	2.5	13.6	A
	Right Turn												
	Second Right												
	Subtotal	1,490	1,449	97.3%	33.4	1,410	1,526	1.1	25.1	2.7	21.1	30.8	C
Total		3,860	3,671	95.1%	41.0	3,596	3,722	3.1	25.2	2.1	22.8	29.0	C

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 28

I-80 EB Ramps/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn												
	Through												
	Right Turn												
	Second Right												
	Subtotal												
SB	U Turn												
	Second Left												
	Left Turn	760	762	100.3%	13.8	745	788	0.1	54.3	3.2	49.5	58.8	D
	Through												
	Right Turn	290	282	97.3%	14.7	254	300	0.5	25.5	2.8	21.1	30.0	C
	Second Right												
	Subtotal	1,050	1,045	99.5%	3.3	1,039	1,049	0.2	46.5	2.7	42.2	50.9	D
EB	U Turn												
	Second Left												
	Left Turn	670	619	92.4%	18.3	578	642	2.0	55.7	1.7	53.1	58.0	E
	Through	710	670	94.3%	21.9	637	705	1.5	5.3	0.8	4.1	6.7	A
	Right Turn												
	Second Right												
	Subtotal	1,380	1,289	93.4%	26.1	1,247	1,331	2.5	29.5	1.1	27.2	31.0	C
WB	U Turn												
	Second Left												
	Left Turn												
	Through	1,200	1,169	97.4%	30.6	1,132	1,226	0.9	26.4	1.1	25.0	28.1	C
	Right Turn	170	174	102.3%	11.5	162	196	0.3	18.7	1.0	17.1	20.3	B
	Second Right												
	Subtotal	1,370	1,343	98.0%	28.7	1,297	1,398	0.7	25.4	0.9	24.2	26.6	C
Total		3,800	3,677	96.8%	25.5	3,627	3,713	2.0	32.8	0.8	31.8	34.6	C

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 29

Research Park Dr/Richards Blvd

Signal

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				LOS
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	
NB	U Turn												
	Second Left												
	Left Turn	170	170	99.8%	5.2	160	176	0.0	50.0	1.9	46.8	52.1	D
	Through	20	21	105.5%	4.9	15	30	0.2	28.6	4.3	21.8	33.6	C
	Right Turn	60	56	92.8%	4.8	48	65	0.6	11.7	3.8	7.5	19.8	B
	Second Right												
	Subtotal	250	247	98.6%	3.9	241	252	0.2	39.5	2.2	36.9	43.4	D
SB	U Turn												
	Second Left												
	Left Turn	200	197	98.3%	11.6	176	211	0.2	84.6	23.9	55.1	135.3	F
	Through	10	9	92.0%	2.2	5	12	0.3	31.3	14.7	14.8	60.8	C
	Right Turn	270	268	99.1%	14.3	246	293	0.1	37.8	13.6	25.9	70.6	D
	Second Right												
	Subtotal	480	473	98.6%	8.8	455	481	0.3	57.3	18.2	39.5	98.2	E
EB	U Turn	40	40	100.3%	6.7	31	49	0.0	37.4	3.7	30.3	43.5	D
	Second Left												
	Left Turn	390	381	97.8%	10.0	363	393	0.4	46.9	7.1	39.5	62.3	D
	Through	970	948	97.7%	22.6	899	974	0.7	19.8	1.1	18.5	22.3	B
	Right Turn	70	65	92.4%	7.9	51	75	0.6	16.5	1.8	13.1	19.3	B
	Second Right												
	Subtotal	1,470	1,434	97.5%	21.5	1,397	1,464	1.0	27.4	2.4	25.1	32.6	C
WB	U Turn												
	Second Left												
	Left Turn	40	42	105.0%	7.6	34	54	0.3	77.2	6.5	65.5	84.6	E
	Through	890	855	96.1%	25.5	800	899	1.2	110.3	18.2	80.7	143.7	F
	Right Turn	40	37	91.5%	7.2	25	49	0.5	49.7	9.2	35.7	67.3	D
	Second Right												
	Subtotal	970	934	96.3%	23.9	882	959	1.2	106.4	17.1	78.3	137.9	F
Total		3,170	3,088	97.4%	17.0	3,066	3,113	1.5	56.9	5.8	49.7	66.6	E

Vissim Post-Processor
Average Results from 12 Runs
Volume and Delay by Movement

Davis Nishi EIR
Cumulative Alternative 2 Mitigated
PM Peak Hour

Intersection 26

In-N-Out-Hotel/Caffe Italia-Richards Blvd

Side-street Stop

Direction	Movement	Demand Volume (vph)	Served Volume (vph)						Total Delay (sec/veh)				
			Average	Percent	Std. Dev.	Minimum	Maximum	GEH	Average	Std. Dev.	Minimum	Maximum	LOS
NB	Through	60	60	100.3%	0.9	59	62	0.0	9.0	0.8	8.1	10.5	A
	Right Turn												
	Second Right												
	Subtotal	60	60	100.3%	0.9	59	62	0.0	9.0	0.8	8.1	10.5	A
SB	Through	10	8	79.0%	0.3	7	8	0.7	16.9	12.1	8.8	48.7	C
	Right Turn												
	Second Right												
	Subtotal	10	8	79.0%	0.3	7	8	0.7	16.9	12.1	8.8	48.7	C
NE	Through	60	60	99.7%	0.6	59	61	0.0	12.6	2.2	10.3	17.9	B
	Right Turn												
	Second Right												
	Subtotal	60	60	99.7%	0.6	59	61	0.0	12.6	2.2	10.3	17.9	B
EB	U Turn	1,660	1,509	90.9%	24.7	1,470	1,544	3.8	2.0	1.0	1.2	4.3	A
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	1,690	1,535	90.9%	27.7	1,494	1,572	3.8	2.0	1.0	1.2	4.2	A
WB	U Turn	210	198	94.4%	8.9	178	211	0.8	112.9	80.1	7.1	226.9	F
	Second Left												
	Left Turn												
	Through												
	Right Turn												
Second Right													
	Subtotal	1,060	977	92.2%	20.3	935	1,004	2.6	34.7	18.0	10.8	66.3	D
Total		2,880	2,640	91.7%	37.9	2,568	2,693	4.6	14.9	6.7	5.4	26.7	B

A.7 – SYNCHRO CALCULATION SHEETS – EXISTING CONDITIONS



HCM 2010 Signalized Intersection Summary
59: F St & E 14th St

Existing Conditions
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	139	85	76	97	250	268		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	145	89	79	101	260	279		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	281	251	141	962	612	504		
Arrive On Green	0.16	0.16	0.08	0.54	0.33	0.33		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1533		
Grp Volume(v), veh/h	145	89	79	101	260	279		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1533		
Q Serve(g_s), s	2.3	1.6	1.3	0.9	3.4	4.7		
Cycle Q Clear(g_c), s	2.3	1.6	1.3	0.9	3.4	4.7		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	281	251	141	962	612	504		
V/C Ratio(X)	0.52	0.36	0.56	0.10	0.42	0.55		
Avail Cap(c_a), veh/h	1139	1017	911	1755	1226	1009		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	12.0	11.7	13.8	3.5	8.2	8.6		
Incr Delay (d2), s/veh	1.5	0.9	3.5	0.0	0.5	1.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.7	0.8	0.4	1.8	2.1			
LnGrp Delay(d),s/veh	13.5	12.5	17.3	3.6	8.6	9.5		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	234			180	539			
Approach Delay, s/veh	13.1			9.6	9.1			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.9	6.5	14.7				21.2
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.3	3.3	6.7				2.9
Green Ext Time (p_c), s		0.6	0.1	2.8				3.5
Intersection Summary								
HCM 2010 Ctrl Delay			10.2					
HCM 2010 LOS			B					

HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔	↔	↔			↔			↔	
Volume (veh/h)	6	170	71	54	228	28	43	92	18	24	160	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	0.99		0.61	0.99		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1837	1900	1900	1857	1900
Adj Flow Rate, veh/h	6	177	74	56	238	29	45	96	19	25	167	23
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2
Cap, veh/h	96	1094	914	783	961	117	171	238	40	119	315	41
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	12	1842	1540	1113	1618	197	282	1102	187	109	1457	188
Grp Volume(v), veh/h	183	0	74	56	0	267	160	0	0	215	0	0
Grp Sat Flow(s),veh/h/ln	1854	0	1540	1113	0	1815	1571	0	0	1753	0	0
Q Serve(g_s), s	0.0	0.0	0.9	1.0	0.0	2.9	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	1.9	0.0	0.9	2.9	0.0	2.9	3.5	0.0	0.0	4.5	0.0	0.0
Prop In Lane	0.03		1.00	1.00		0.11	0.28		0.12	0.12		0.11
Lane Grp Cap(c), veh/h	1190	0	914	783	0	1078	449	0	0	474	0	0
V/C Ratio(X)	0.15	0.00	0.08	0.07	0.00	0.25	0.36	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	1234	0	952	810	0	1122	858	0	0	959	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.8	0.0	3.6	4.5	0.0	4.1	14.3	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.4	0.3	0.0	1.4	1.7	0.0	0.0	2.3	0.0	0.0
LnGrp Delay(d),s/veh	3.9	0.0	3.7	4.5	0.0	4.2	14.8	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		257			323			160			215	
Approach Delay, s/veh		3.8			4.2			14.8			15.4	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		29.0		13.1		29.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0				
Max Q Clear Time (g_c+1), s		5.5		3.9		6.5		4.9				
Green Ext Time (p_c), s		2.1		3.4		2.1		3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			8.4									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↗	↖	↑	↗
Volume (veh/h)	18	159	30	13	259	47	13	103	10	68	247	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.94	1.00		0.57	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1858	1900	1900	1854	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	19	166	31	14	270	49	14	107	10	71	257	38
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	142	491	86	125	506	89	29	388	185	129	508	396
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.02	0.22	0.22	0.07	0.27	0.27
Sat Flow, veh/h	63	1436	251	29	1481	261	1601	1776	848	1774	1863	1452
Grp Volume(v), veh/h	216	0	0	333	0	0	14	107	10	71	257	38
Grp Sat Flow(s),veh/h/ln	1751	0	0	1771	0	0	1601	1776	848	1774	1863	1452
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.6	0.3	1.3	3.8	0.6
Cycle Q Clear(g_c), s	2.9	0.0	0.0	4.9	0.0	0.0	0.3	1.6	0.3	1.3	3.8	0.6
Prop In Lane	0.09		0.14	0.04		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	718	0	0	720	0	0	29	388	185	129	508	396
V/C Ratio(X)	0.30	0.00	0.00	0.46	0.00	0.00	0.48	0.28	0.05	0.55	0.51	0.10
Avail Cap(c_a), veh/h	1485	0	0	1512	0	0	784	1685	805	869	1768	1378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	0.0	8.7	0.0	0.0	15.9	10.6	10.1	14.6	10.0	8.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	0.0	11.6	0.4	0.1	3.6	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	2.5	0.0	0.0	0.2	0.8	0.1	0.7	2.0	0.3
LnGrp Delay(d),s/veh	8.3	0.0	0.0	9.2	0.0	0.0	27.5	11.0	10.2	18.3	10.8	9.0
LnGrp LOS	A			A			C	B	B	B	B	A
Approach Vol, veh/h		216			333			131			366	
Approach Delay, s/veh		8.3			9.2			12.7			12.1	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	11.1		15.2	4.6	12.9		15.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+1), s	13.3	3.6		4.9	2.3	5.8		6.9				
Green Ext Time (p_c), s	0.1	2.6		3.6	0.0	2.5		3.5				
Intersection Summary												
HCM 2010 Ctrl Delay				10.4								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
49: Russell Blvd & Sycamore Ln



























Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↑		↖		↗
Volume (veh/h)	205	568	0	0	282	39	0	0	0	90	0	181
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.58	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	214	592	0	0	294	41	0	0	0	94	0	189
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	184	1736	0	0	810	107	0	5	0	351	0	0
Arrive On Green	0.10	0.49	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.20	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	2958	377	0	11765	0	1774	94	
Grp Volume(v), veh/h	214	592	0	0	175	160	0	0	0	94	13.4	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1473	0	1863	0	1774	B	
Q Serve(g_s), s	4.0	3.9	0.0	0.0	3.0	3.4	0.0	0.0	0.0	1.7		
Cycle Q Clear(g_c), s	4.0	3.9	0.0	0.0	3.0	3.4	0.0	0.0	0.0	1.7		
Prop In Lane	1.00		0.00	0.00		0.26	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	184	1736	0	0	500	416	0	5	0	351		
V/C Ratio(X)	1.16	0.34	0.00	0.00	0.35	0.38	0.00	0.00	0.00	0.27		
Avail Cap(c_a), veh/h	184	1748	0	0	1384	1152	0	920	0	876		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.2	6.0	0.0	0.0	11.0	11.1	0.0	0.0	0.0	13.1		
Incr Delay (d2), s/veh	116.1	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.9	0.0	0.0	1.5	1.4	0.0	0.0	0.0	0.0	0.9		
LnGrp Delay(d),s/veh	133.3	6.1	0.0	0.0	11.1	11.3	0.0	0.0	0.0	13.4		
LnGrp LOS	F	A			B	B				B		
Approach Vol, veh/h		806			335			0				
Approach Delay, s/veh		39.9			11.2			0.0				
Approach LOS		D			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		24.9			8.0	16.9	13.6	0.0				
Change Period (Y+Rc), s		6.0			4.0	* 6	6.0	6.0				
Max Green Setting (Gmax), s		19.0			4.0	* 30	19.0	19.0				
Max Q Clear Time (g_c+I1), s		5.9			6.0	5.4	3.7	0.0				
Green Ext Time (p_c), s		3.8			0.0	4.7	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay					30.1							
HCM 2010 LOS					C							
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	81	465	112	204	209	54	44	56	97	105	262	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	84	484	0	212	218	56	46	58	0	109	273	74
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	1033	0	291	1121	470	68	586	0	139	560	148
Arrive On Green	0.06	0.29	0.00	0.08	0.32	0.32	0.04	0.17	0.00	0.08	0.21	0.21
Sat Flow, veh/h	1774	3632	0	3442	3539	1483	1774	3632	0	1774	2729	720
Grp Volume(v), veh/h	84	484	0	212	218	56	46	58	0	109	174	173
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1483	1774	1770	0	1774	1770	1680
Q Serve(g_s), s	2.2	5.3	0.0	2.8	2.1	1.3	1.2	0.7	0.0	2.9	4.1	4.3
Cycle Q Clear(g_c), s	2.2	5.3	0.0	2.8	2.1	1.3	1.2	0.7	0.0	2.9	4.1	4.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.43
Lane Grp Cap(c), veh/h	106	1033	0	291	1121	470	68	586	0	139	363	345
V/C Ratio(X)	0.80	0.47	0.00	0.73	0.19	0.12	0.68	0.10	0.00	0.79	0.48	0.50
Avail Cap(c_a), veh/h	150	2242	0	291	2242	939	150	1121	0	150	560	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	13.8	0.0	21.2	11.8	11.5	22.5	16.8	0.0	21.4	16.6	16.7
Incr Delay (d2), s/veh	17.4	0.1	0.0	8.9	0.0	0.0	11.1	0.0	0.0	22.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	2.6	0.0	1.7	1.0	0.5	0.8	0.3	0.0	2.2	2.0	2.0
LnGrp Delay(d),s/veh	39.4	13.9	0.0	30.1	11.8	11.5	33.6	16.8	0.0	43.7	17.0	17.1
LnGrp LOS	D	B		C	B	B	C	B		D	B	B
Approach Vol, veh/h		568			486			104			456	
Approach Delay, s/veh		17.6			19.8			24.2			23.4	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	18.8	5.8	14.7	6.8	20.0	7.7	12.8				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	4.0	30.0	4.0	15.0	4.0	30.0	4.0	15.0				
Max Q Clear Time (g_c+I1), s	4.8	7.3	3.2	6.3	4.2	4.1	4.9	2.7				
Green Ext Time (p_c), s	0.0	3.3	0.0	1.1	0.0	3.4	0.0	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			20.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	563	117	68	415	0	20
Conflicting Peds, #/hr	0	17	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	586	122	71	432	0	21

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	708
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	887
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	887
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	642	-	-	887	-
HCM Lane V/C Ratio	0.032	-	-	0.08	-
HCM Control Delay (s)	10.8	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-

HCM 2010 Signalized Intersection Summary
46: Howard Way/College Park & Russell Blvd

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	401	161	159	371	12	48	0	28	9	1	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.91	1.00		0.93	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	18	418	168	166	386	12	50	0	29	9	1	14
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	675	268	124	1140	35	478	0	395	66	69	50
Arrive On Green	0.02	0.27	0.27	0.07	0.33	0.33	0.27	0.00	0.27	0.04	0.04	0.04
Sat Flow, veh/h	1774	2467	980	1774	3493	108	1774	0	1468	1774	1863	1365
Grp Volume(v), veh/h	18	299	287	166	195	203	50	0	29	9	1	14
Grp Sat Flow(s),veh/h/ln	1774	1770	1677	1774	1770	1832	1774	0	1468	1774	1863	1365
Q Serve(g_s), s	0.6	8.4	8.6	4.0	4.8	4.8	1.2	0.0	0.8	0.3	0.0	0.6
Cycle Q Clear(g_c), s	0.6	8.4	8.6	4.0	4.8	4.8	1.2	0.0	0.8	0.3	0.0	0.6
Prop In Lane	1.00		0.58	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	31	484	459	124	578	598	478	0	395	66	69	50
V/C Ratio(X)	0.58	0.62	0.63	1.34	0.34	0.34	0.10	0.00	0.07	0.14	0.01	0.28
Avail Cap(c_a), veh/h	124	929	880	124	929	962	931	0	770	900	945	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	18.1	18.2	26.6	14.6	14.6	15.7	0.0	15.6	26.6	26.5	26.8
Incr Delay (d2), s/veh	16.2	0.5	0.5	196.0	0.1	0.1	0.0	0.0	0.0	0.4	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.1	4.0	8.7	2.3	2.4	0.6	0.0	0.3	0.1	0.0	0.0	0.2
LnGrp Delay(d),s/veh	44.1	18.6	18.7	222.6	14.7	14.7	15.7	0.0	15.6	27.0	26.5	27.9
LnGrp LOS	D	B	B	F	B	B	B		B	C	C	C
Approach Vol, veh/h		604			564			79			24	
Approach Delay, s/veh		19.4			75.9			15.7			27.5	
Approach LOS		B			E			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	20.6		8.1	5.0	23.6		20.4				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	30.0	30.0		29.0	4.0	30.0		30.0				
Max Q Clear Time (g_c+1), s	10.6	10.6		2.6	2.6	6.8		3.2				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	4.1		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay				44.4								
HCM 2010 LOS				D								

HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	234	187	68	279	56	164	107	15	42	175	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.86	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	14	244	0	71	291	0	171	111	16	44	182	21
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	38	1161	0	136	1357	0	225	457	336	99	284	33
Arrive On Green	0.02	0.33	0.00	0.08	0.38	0.00	0.13	0.25	0.25	0.06	0.17	0.17
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1367	1774	1632	188
Grp Volume(v), veh/h	14	244	0	71	291	0	171	111	16	44	0	203
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1367	1774	0	1820
Q Serve(g_s), s	0.4	2.4	0.0	1.8	2.6	0.0	4.4	2.3	0.4	1.1	0.0	4.9
Cycle Q Clear(g_c), s	0.4	2.4	0.0	1.8	2.6	0.0	4.4	2.3	0.4	1.1	0.0	4.9
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	38	1161	0	136	1357	0	225	457	336	99	0	317
V/C Ratio(X)	0.37	0.21	0.00	0.52	0.21	0.00	0.76	0.24	0.05	0.45	0.00	0.64
Avail Cap(c_a), veh/h	429	2714	0	429	2714	0	615	646	474	615	0	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	11.5	0.0	21.1	9.9	0.0	20.1	14.4	13.7	21.8	0.0	18.3
Incr Delay (d2), s/veh	2.2	0.0	0.0	1.1	0.0	0.0	5.2	0.1	0.0	1.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	0.0	0.9	1.3	0.0	2.5	1.2	0.2	0.6	0.0	2.6	
LnGrp Delay(d),s/veh	25.2	11.6	0.0	22.3	9.9	0.0	25.3	14.5	13.7	22.9	0.0	19.1
LnGrp LOS	C	B		C	A		C	B	B	C		B
Approach Vol, veh/h		258			362			298			247	
Approach Delay, s/veh		12.3			12.3			20.6			19.8	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	19.1	9.5	11.8	4.5	21.8	6.1	15.2				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+1), s	13	4.4	6.4	6.9	2.4	4.6	3.1	4.3				
Green Ext Time (p_c), s	0.0	2.5	0.3	0.9	0.0	2.5	0.0	1.0				

Intersection Summary

HCM 2010 Ctrl Delay	16.0
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	442	0	0	463	15	65	14	13	9	0	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.85	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	23	460	0	0	482	16	68	15	14	9	0	23
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	596	1625	0	0	1595	53	375	183	171	0	0	0
Arrive On Green	0.46	0.46	0.00	0.00	0.46	0.46	0.21	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	894	3632	0	0	3567	115	1774	867	809		0	
Grp Volume(v), veh/h	23	460	0	0	245	253	68	0	29		0.0	
Grp Sat Flow(s),veh/h/ln	894	1770	0	0	1770	1819	1774	0	1676			
Q Serve(g_s), s	0.5	2.2	0.0	0.0	2.4	2.4	0.9	0.0	0.4			
Cycle Q Clear(g_c), s	2.8	2.2	0.0	0.0	2.4	2.4	0.9	0.0	0.4			
Prop In Lane	1.00		0.00	0.00		0.06	1.00		0.48			
Lane Grp Cap(c), veh/h	596	1625	0	0	813	835	375	0	354			
V/C Ratio(X)	0.04	0.28	0.00	0.00	0.30	0.30	0.18	0.00	0.08			
Avail Cap(c_a), veh/h	1692	5961	0	0	2980	3064	1299	0	1227			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.5	4.6	0.0	0.0	4.6	4.6	8.8	0.0	8.6			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.2	0.2	0.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.0	1.2	1.2	0.4	0.0	0.2				
LnGrp Delay(d),s/veh	5.6	4.7	0.0	0.0	4.8	4.8	8.9	0.0	8.7			
LnGrp LOS	A	A			A	A	A		A			
Approach Vol, veh/h		483			498			97				
Approach Delay, s/veh		4.7			4.8			8.8				
Approach LOS		A			A			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.5				16.5		10.8				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		4.8				4.4		2.9				
Green Ext Time (p_c), s		7.6				7.6		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay				5.2								
HCM 2010 LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	198	17	18	371	33	11	66	4	40	157	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.70	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1782	1900	1863	1846	1900	1776	1807	1900	1863	1863	1900
Adj Flow Rate, veh/h	18	206	18	19	386	34	11	69	4	42	164	60
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	102	1003	88	45	968	85	23	228	13	64	211	77
Arrive On Green	0.07	0.62	0.62	0.05	1.00	1.00	0.01	0.14	0.14	0.04	0.17	0.17
Sat Flow, veh/h	1533	1612	141	1774	1666	147	1691	1647	95	1774	1265	463
Grp Volume(v), veh/h	18	0	224	19	0	420	11	0	73	42	0	224
Grp Sat Flow(s),veh/h/ln	1533	0	1753	1774	0	1813	1691	0	1742	1774	0	1728
Q Serve(g_s), s	1.0	0.0	5.0	0.9	0.0	0.0	0.6	0.0	3.4	2.1	0.0	11.2
Cycle Q Clear(g_c), s	1.0	0.0	5.0	0.9	0.0	0.0	0.6	0.0	3.4	2.1	0.0	11.2
Prop In Lane	1.00		0.08	1.00		0.08	1.00		0.05	1.00		0.27
Lane Grp Cap(c), veh/h	102	0	1091	45	0	1054	23	0	241	64	0	288
V/C Ratio(X)	0.18	0.00	0.21	0.42	0.00	0.40	0.49	0.00	0.30	0.66	0.00	0.78
Avail Cap(c_a), veh/h	102	0	1091	118	0	1054	103	0	387	99	0	384
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.00	0.94	0.86	0.00	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	7.4	42.1	0.0	0.0	44.1	0.0	34.9	42.8	0.0	35.9
Incr Delay (d2), s/veh	0.3	0.0	0.4	2.0	0.0	1.0	5.9	0.0	0.3	4.2	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	2.5	0.5	0.0	0.3	0.3	0.0	1.6	1.1	0.0	5.7	
LnGrp Delay(d),s/veh	40.0	0.0	7.8	44.1	0.0	1.0	50.0	0.0	35.1	47.0	0.0	40.8
LnGrp LOS	D		A	D		A	D		D	D		D
Approach Vol, veh/h		242			439			84			266	
Approach Delay, s/veh		10.2			2.8			37.1			41.7	
Approach LOS		B			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	60.0	4.7	19.0	10.0	56.3	7.3	16.5				
Change Period (Y+Rc), s	4.0	4.0	3.5	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	43.0	43.0	5.5	20.0	6.0	43.0	5.0	20.0				
Max Q Clear Time (g_c+1), s	7.0	7.0	2.6	13.2	3.0	2.0	4.1	5.4				
Green Ext Time (p_c), s	0.0	6.7	0.0	0.7	0.0	6.8	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			17.4									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	214	16	35	400	28	13	34	27	21	33	9
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.87	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1794	1900	1863	1854	1900	1681	1783	1900	1827	1643	1900
Adj Flow Rate, veh/h	12	223	17	36	417	29	14	35	28	22	34	9
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	794	61	128	825	57	98	195	156	106	281	74
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1642	125	1774	1708	119	1601	858	687	1740	1234	327
Grp Volume(v), veh/h	12	0	240	36	0	446	14	0	63	22	0	43
Grp Sat Flow(s),veh/h/ln	1533	0	1767	1774	0	1827	1601	0	1545	1740	0	1560
Q Serve(g_s), s	0.6	0.0	0.6	1.7	0.0	15.0	0.7	0.0	3.0	1.1	0.0	2.0
Cycle Q Clear(g_c), s	0.6	0.0	0.6	1.7	0.0	15.0	0.7	0.0	3.0	1.1	0.0	2.0
Prop In Lane	1.00		0.07	1.00		0.07	1.00		0.44	1.00		0.21
Lane Grp Cap(c), veh/h	111	0	854	128	0	883	98	0	352	106	0	355
V/C Ratio(X)	0.11	0.00	0.28	0.28	0.00	0.51	0.14	0.00	0.18	0.21	0.00	0.12
Avail Cap(c_a), veh/h	111	0	854	128	0	883	98	0	352	106	0	355
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	0.8	39.5	0.0	15.9	40.0	0.0	28.0	40.2	0.0	27.6
Incr Delay (d2), s/veh	2.0	0.0	0.8	5.4	0.0	2.1	3.0	0.0	1.1	4.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.4	1.0	0.0	8.1	0.4	0.0	1.4	0.6	0.0	0.9
LnGrp Delay(d),s/veh	37.9	0.0	1.6	44.9	0.0	18.0	43.1	0.0	29.1	44.5	0.0	28.3
LnGrp LOS	D		A	D		B	D		C	D		C
Approach Vol, veh/h		252			482			77			65	
Approach Delay, s/veh		3.3			20.0			31.6			33.8	
Approach LOS		A			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+1), s	13	2.6	2.7	4.0	2.6	17.0	3.1	5.0				
Green Ext Time (p_c), s	0.0	7.4	0.0	0.3	0.0	6.7	0.0	0.3				
Intersection Summary												
HCM 2010 Ctrl Delay				17.2								
HCM 2010 LOS				B								

Intersection

Intersection Delay, s/veh 8.5
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	18	5	0	10	34	10	0	10	73	17	0	27	157	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	19	5	0	10	35	10	0	10	76	18	0	28	164	15
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	7.8	8	8.2	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	15%	19%	100%	0%
Vol Thru, %	0%	81%	67%	63%	0%	92%
Vol Right, %	0%	19%	19%	19%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	90	27	54	27	171
LT Vol	10	0	4	10	27	0
Through Vol	0	73	18	34	0	157
RT Vol	0	17	5	10	0	14
Lane Flow Rate	10	94	28	56	28	178
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.016	0.124	0.036	0.072	0.041	0.231
Departure Headway (Hd)	5.407	4.772	4.661	4.632	5.237	4.678
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	665	754	771	777	675	757
Service Time	3.118	2.483	2.671	2.641	3.034	2.475
HCM Lane V/C Ratio	0.015	0.125	0.036	0.072	0.041	0.235
HCM Control Delay	8.2	8.2	7.8	8	8.3	8.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.4	0.1	0.2	0.1	0.9

HCM 2010 Signalized Intersection Summary
 95: La Rue Rd & Orchard Rd

Existing Conditions
 AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↕↔		↔	↕↔	
Volume (veh/h)	19	11	23	20	2	31	22	161	67	91	407	72
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.94		0.98	1.00		0.96	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	20	11	24	21	2	32	23	168	70	95	424	75
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	412	165	292	526	37	311	628	1100	436	776	1284	222
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	763	825	1457	1123	184	1550	892	2445	970	1133	2854	494
Grp Volume(v), veh/h	31	0	24	23	0	32	23	119	119	95	259	240
Grp Sat Flow(s),veh/h/ln1588	0	1457	1307	0	1550	892	1770	1645	1133	1770	1578	
Q Serve(g_s), s	0.0	0.0	0.3	0.1	0.0	0.4	0.4	0.9	1.0	1.2	2.2	2.3
Cycle Q Clear(g_c), s	0.3	0.0	0.3	0.4	0.0	0.4	2.6	0.9	1.0	2.2	2.2	2.3
Prop In Lane	0.65		1.00	0.91		1.00	1.00		0.59	1.00		0.31
Lane Grp Cap(c), veh/h	577	0	292	563	0	311	628	796	740	776	796	710
V/C Ratio(X)	0.05	0.00	0.08	0.04	0.00	0.10	0.04	0.15	0.16	0.12	0.33	0.34
Avail Cap(c_a), veh/h	1991	0	1655	1797	0	1762	1240	2011	1869	1554	2011	1793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	0.0	7.4	7.4	0.0	7.5	4.9	3.7	3.7	4.4	4.1	4.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.1	0.1	0.0	0.2	0.1	0.4	0.4	0.4	1.1	1.0	
LnGrp Delay(d),s/veh	7.5	0.0	7.6	7.5	0.0	7.6	5.0	3.8	3.8	4.5	4.3	4.4
LnGrp LOS	A		A	A		A	A	A	A	A	A	A
Approach Vol, veh/h		55			55			261			594	
Approach Delay, s/veh		7.5			7.5			3.9			4.3	
Approach LOS		A			A			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.3		8.6		14.3		8.6				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		4.6		2.3		4.3		2.4				
Green Ext Time (p_c), s		5.3		0.4		5.3		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			4.6									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	1	0	1	29	0	38	6	242	7	64	353	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.65	1.00		0.81	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	0	1	30	0	40	6	252	7	67	368	7
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	0	35	33	0	44	11	666	19	98	766	15
Arrive On Green	0.05	0.00	0.05	0.06	0.00	0.06	0.01	0.37	0.37	0.06	0.42	0.42
Sat Flow, veh/h	771	0	771	537	0	716	1774	1791	50	1774	1820	35
Grp Volume(v), veh/h	2	0	0	70	0	0	6	0	259	67	0	375
Grp Sat Flow(s),veh/h/ln1542	0	0	0	1253	0	0	1774	0	1840	1774	0	1855
Q Serve(g_s), s	0.0	0.0	0.0	1.9	0.0	0.0	0.1	0.0	3.5	1.3	0.0	5.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.9	0.0	0.0	0.1	0.0	3.5	1.3	0.0	5.0
Prop In Lane	0.50		0.50	0.43		0.57	1.00		0.03	1.00		0.02
Lane Grp Cap(c), veh/h	70	0	0	77	0	0	11	0	685	98	0	780
V/C Ratio(X)	0.03	0.00	0.00	0.91	0.00	0.00	0.52	0.00	0.38	0.69	0.00	0.48
Avail Cap(c_a), veh/h	719	0	0	584	0	0	207	0	1394	207	0	1405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	16.0	0.0	0.0	17.0	0.0	7.9	15.9	0.0	7.2
Incr Delay (d2), s/veh	0.2	0.0	0.0	48.6	0.0	0.0	32.1	0.0	0.7	8.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	1.7	0.0	0.0	0.2	0.0	1.9	0.8	0.0	2.7
LnGrp Delay(d),s/veh	15.8	0.0	0.0	64.6	0.0	0.0	49.1	0.0	8.6	24.2	0.0	8.2
LnGrp LOS	B			E			D		A	C		A
Approach Vol, veh/h		2		70			265		442			
Approach Delay, s/veh		15.8		64.6			9.5		10.6			
Approach LOS		B		E			A		B			
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	16.8		5.6	4.2	18.4		6.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	1.0	26.0		16.0	4.0	26.0		16.0				
Max Q Clear Time (g_c+1), s	1.3	5.5		2.0	2.1	7.0		3.9				
Green Ext Time (p_c), s	0.0	7.2		0.0	0.0	7.0		0.4				

Intersection Summary

HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	9	33	19	0	20	78	8	0	12	87	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	34	20	0	21	81	8	0	13	91	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8	8.4	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	15%	19%	9%
Vol Thru, %	77%	54%	74%	66%
Vol Right, %	12%	31%	8%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	61	106	153
LT Vol	12	9	20	14
Through Vol	87	33	78	101
RT Vol	14	19	8	38
Lane Flow Rate	118	64	110	159
Geometry Grp	1	1	1	1
Degree of Util (X)	0.146	0.08	0.142	0.192
Departure Headway (Hd)	4.467	4.536	4.626	4.347
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	804	790	776	827
Service Time	2.489	2.562	2.65	2.367
HCM Lane V/C Ratio	0.147	0.081	0.142	0.192
HCM Control Delay	8.3	8	8.4	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.5	0.7

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	14	101	38
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	105	40
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.4
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	6	15	9	7	27	4	225	12	38	331	15
Conflicting Peds, #/hr	0	0	21	0	0	15	0	0	5	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	16	9	7	28	4	234	12	40	345	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	735	723	379	728	725	271	381	0	0	262	0	0
Stage 1	453	453	-	264	264	-	-	-	-	-	-	-
Stage 2	282	270	-	464	461	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	335	352	668	339	352	768	1177	-	-	1302	-	-
Stage 1	586	570	-	741	690	-	-	-	-	-	-	-
Stage 2	725	686	-	578	565	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	299	330	654	312	330	749	1172	-	-	1286	-	-
Mov Cap-2 Maneuver	299	330	-	312	330	-	-	-	-	-	-	-
Stage 1	574	543	-	729	679	-	-	-	-	-	-	-
Stage 2	679	675	-	538	538	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	13.7			12.9			0.1			0.8		
HCM LOS	B			B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1172	-	-	441	499	1286	-	-
HCM Lane V/C Ratio	0.004	-	-	0.064	0.09	0.031	-	-
HCM Control Delay (s)	8.1	-	-	13.7	12.9	7.9	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.1	-	-

Intersection

Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	13	16	11	0	6	32	16	0	11	84	6
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	14	17	11	0	6	33	17	0	11	88	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.7	7.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	33%	11%	18%
Vol Thru, %	83%	40%	59%	62%
Vol Right, %	6%	28%	30%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	41	54	127
LT Vol	11	13	6	23
Through Vol	84	16	32	79
RT Vol	6	11	16	25
Lane Flow Rate	105	43	56	132
Geometry Grp	1	1	1	1
Degree of Util (X)	0.123	0.052	0.068	0.151
Departure Headway (Hd)	4.194	4.422	4.351	4.105
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	814	828	860
Service Time	2.287	2.424	2.352	2.194
HCM Lane V/C Ratio	0.125	0.053	0.068	0.153
HCM Control Delay	7.9	7.7	7.7	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.2	0.5

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	79	25
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	24	82	26
Number of Lanes	0	0	1	0

Approach

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	2	5	1	240	9	42	2	25	86	0	0	0
Conflicting Peds, #/hr	0	0	90	0	0	0	26	0	0	6	0	0	73
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2	5	1	250	9	44	2	26	90	0	0	0

Major/Minor

	Minor2			Major2				Minor1		
Conflicting Flow All	640	629	121	90	6	0	0	631	651	33
Stage 1	621	623	-	-	-	-	-	6	6	-
Stage 2	19	6	-	-	-	-	-	625	645	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	440	399	930	-	-	-	-	445	388	-
Stage 1	536	478	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	534	467	-
Platoon blocked, %										
Mov Cap-1 Maneuver	376	0	860	-	-	-	-	443	0	-
Mov Cap-2 Maneuver	376	0	-	-	-	-	-	443	0	-
Stage 1	496	0	-	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	-	534	0	-

Approach

	EB	WB	NB
HCM Control Delay, s	11.7		
HCM LOS	B		-

Minor Lane/Major Mvmt

	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	443	-	547	-	-	-
HCM Lane V/C Ratio	0.063	-	0.021	-	-	-
HCM Control Delay (s)	13.7	-	11.7	-	-	-
HCM Lane LOS	B	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-	-

Intersection

Intersection Delay, s/veh 10.8
Intersection LOS B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	41	57	0	229	211	0	177	158
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	59	0	239	220	0	184	165
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach

	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	9.7	10.8	11
HCM LOS	A	B	B

Lane

	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	57	229	211	177	158
LT Vol	41	0	0	0	177	0
Through Vol	0	57	229	0	0	0
RT Vol	0	0	0	211	0	158
Lane Flow Rate	43	59	239	220	184	165
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.079	0.101	0.372	0.299	0.33	0.24
Departure Headway (Hd)	6.621	6.113	5.718	5.01	6.452	5.244
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	543	588	632	721	561	688
Service Time	4.339	3.831	3.418	2.71	4.158	2.95
HCM Lane V/C Ratio	0.079	0.1	0.378	0.305	0.328	0.24
HCM Control Delay	9.9	9.5	11.8	9.8	12.3	9.6
HCM Lane LOS	A	A	B	A	B	A
HCM 95th-tile Q	0.3	0.3	1.7	1.3	1.4	0.9

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	226	17	22	425	53	5	2	16	28	14	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	0.99		0.79	0.98		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	2	235	18	23	443	55	5	2	17	29	15	12
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	690	53	52	698	87	215	45	142	208	26	172
Arrive On Green	0.00	0.41	0.41	0.03	0.43	0.43	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	1700	130	1774	1616	201	1	398	1251	1	228	1511
Grp Volume(v), veh/h	2	0	253	23	0	498	7	0	17	44	0	12
Grp Sat Flow(s),veh/h/ln	1774	0	1830	1774	0	1817	399	0	1251	229	0	1511
Q Serve(g_s), s	0.0	0.0	2.7	0.4	0.0	6.2	0.0	0.0	0.4	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	2.7	0.4	0.0	6.2	3.3	0.0	0.4	3.3	0.0	0.2
Prop In Lane	1.00		0.07	1.00		0.11	0.71		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	6	0	743	52	0	785	260	0	142	233	0	172
V/C Ratio(X)	0.32	0.00	0.34	0.44	0.00	0.63	0.03	0.00	0.12	0.19	0.00	0.07
Avail Cap(c_a), veh/h	678	0	1907	678	0	1894	913	0	695	894	0	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	5.9	13.7	0.0	6.4	11.5	0.0	11.5	12.6	0.0	11.4
Incr Delay (d2), s/veh	10.9	0.0	0.1	2.2	0.0	0.3	0.0	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	1.4	0.2	0.0	3.1	0.0	0.0	0.1	0.3	0.0	0.1
LnGrp Delay(d),s/veh	25.2	0.0	6.0	16.0	0.0	6.7	11.5	0.0	11.6	12.7	0.0	11.5
LnGrp LOS	C		A	B		A	B		B	B		B
Approach Vol, veh/h		255			521			24			56	
Approach Delay, s/veh		6.1			7.1			11.6			12.5	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	16.7		7.3	4.1	17.4		7.3				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	30.0	30.0		16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+1), s	4.7	4.7		5.3	2.0	8.2		5.3				
Green Ext Time (p_c), s	0.0	3.5		0.1	0.0	3.4		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay				7.3								
HCM 2010 LOS				A								

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	122	138	0	57	4	0	3	72
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	127	144	0	59	4	0	3	75
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach

























	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.2	7.7	7.5
HCM LOS	A	A	A

Lane

	EBLn1	WBLn1	SBLn1
Vol Left, %	47%	0%	4%
Vol Thru, %	53%	93%	0%
Vol Right, %	0%	7%	96%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	260	61	75
LT Vol	122	0	3
Through Vol	138	57	0
RT Vol	0	4	72
Lane Flow Rate	271	64	78
Geometry Grp	1	1	1
Degree of Util (X)	0.317	0.075	0.089
Departure Headway (Hd)	4.212	4.346	4.112
Convergence, Y/N	Yes	Yes	Yes
Cap	848	829	877
Service Time	2.269	2.346	2.112
HCM Lane V/C Ratio	0.32	0.077	0.089
HCM Control Delay	9.2	7.7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	0.2	0.3

HCM 2010 Signalized Intersection Summary
94: La Rue Rd & Hutchison Dr

Existing Conditions
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 			 	
Volume (veh/h)	128	358	206	5	62	40	51	83	12	156	170	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		0.93	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	133	373	0	5	65	42	50	90	12	160	180	141
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	709	1340	0	567	705	559	533	1066	139	662	654	475
Arrive On Green	0.38	0.38	0.00	0.38	0.38	0.38	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1258	3632	0	1002	1863	1477	1050	3215	419	1284	1973	1433
Grp Volume(v), veh/h	133	373	0	5	65	42	50	51	51	160	169	152
Grp Sat Flow(s),veh/h/ln	1258	1770	0	1002	1863	1477	1050	1863	1771	1284	1863	1543
Q Serve(g_s), s	2.1	2.0	0.0	0.1	0.6	0.5	1.0	0.5	0.5	2.7	1.8	2.0
Cycle Q Clear(g_c), s	2.7	2.0	0.0	2.1	0.6	0.5	3.0	0.5	0.5	3.2	1.8	2.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.24	1.00		0.93
Lane Grp Cap(c), veh/h	709	1340	0	567	705	559	533	618	587	662	618	512
V/C Ratio(X)	0.19	0.28	0.00	0.01	0.09	0.08	0.09	0.08	0.09	0.24	0.27	0.30
Avail Cap(c_a), veh/h	1418	3334	0	1131	1755	1392	1174	1755	1669	1446	1755	1453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.4	6.0	0.0	6.7	5.5	5.5	8.0	6.3	6.3	7.5	6.8	6.8
Incr Delay (d2), s/veh	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.7	1.0	0.0	0.0	0.3	0.2	0.3	0.3	0.3	1.0	1.0	0.9
LnGrp Delay(d),s/veh	6.5	6.1	0.0	6.7	5.6	5.5	8.0	6.4	6.4	7.7	7.0	7.2
LnGrp LOS	A	A		A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		506			112			152			481	
Approach Delay, s/veh		6.2			5.6			6.9			7.3	
Approach LOS		A			A			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.2		14.4		13.2		14.4				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		5.0		4.7		5.2		4.1				
Green Ext Time (p_c), s		3.3		3.6		3.3		3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	24	0	10	0	5	0	2	0	16	91	32
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	0	10	0	5	0	2	0	17	95	33
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8	7.9	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	12%	71%	71%	0%	0%
Vol Thru, %	65%	0%	0%	100%	0%
Vol Right, %	23%	29%	29%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	34	7	208	35
LT Vol	16	24	5	1	0
Through Vol	91	0	0	207	0
RT Vol	32	10	2	0	35
Lane Flow Rate	145	35	7	217	36
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.172	0.047	0.01	0.282	0.04
Departure Headway (Hd)	4.287	4.801	4.848	4.682	3.978
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	841	749	741	761	891
Service Time	2.294	2.809	2.857	2.448	1.744
HCM Lane V/C Ratio	0.172	0.047	0.009	0.285	0.04
HCM Control Delay	8.2	8	7.9	9.3	6.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0	1.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	207	35
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	1	216	36
Number of Lanes	0	0	1	1

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A

Lane

HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	85	312	17	9	478	73	78	3	19	8	0	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.88	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	89	325	18	9	498	76	81	3	20	8	0	18
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	849	47	21	798	661	118	30	201	19	195	77
Arrive On Green	0.07	0.49	0.49	0.01	0.43	0.43	0.07	0.16	0.16	0.01	0.00	0.10
Sat Flow, veh/h	1774	1745	97	1774	1863	1543	1774	187	1248	1774	1863	733
Grp Volume(v), veh/h	89	0	343	9	498	76	81	0	23	8	0	18
Grp Sat Flow(s),veh/h/ln	1774	0	1842	1774	1863	1543	1774	0	1436	1774	1863	733
Q Serve(g_s), s	2.5	0.0	6.0	0.3	10.7	1.5	2.3	0.0	0.7	0.2	0.0	1.2
Cycle Q Clear(g_c), s	2.5	0.0	6.0	0.3	10.7	1.5	2.3	0.0	0.7	0.2	0.0	1.2
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	124	0	896	21	798	661	118	0	231	19	195	77
V/C Ratio(X)	0.72	0.00	0.38	0.43	0.62	0.12	0.69	0.00	0.10	0.43	0.00	0.23
Avail Cap(c_a), veh/h	379	0	1074	276	1086	899	276	0	231	276	290	114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	8.3	25.3	11.5	8.8	23.5	0.0	18.4	25.3	0.0	21.1
Incr Delay (d2), s/veh	7.5	0.0	0.6	13.5	1.7	0.2	6.8	0.0	0.4	14.9	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	3.2	0.2	5.8	0.7	1.3	0.0	0.3	0.2	0.0	0.3
LnGrp Delay(d),s/veh	30.9	0.0	8.9	38.8	13.2	9.0	30.3	0.0	18.8	40.2	0.0	22.7
LnGrp LOS	C		A	D	B	A	C		B	D		C
Approach Vol, veh/h		432			583			104			26	
Approach Delay, s/veh		13.5			13.0			27.8			28.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	30.0	7.4	9.4	7.6	27.0	4.5	12.3				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	12.3	8.0	4.3	3.2	4.5	12.7	2.2	2.7				
Green Ext Time (p_c), s	0.0	10.8	0.0	0.0	0.1	9.3	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.9									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions
AM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	243	12	19	413	28	65	8	42	9	4	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.90	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	43	253	12	20	430	29	68	8	44	9	4	65
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	668	533	36	634	521	96	334	254	17	6	96
Arrive On Green	0.04	0.36	0.36	0.02	0.34	0.34	0.05	0.18	0.18	0.01	0.13	0.13
Sat Flow, veh/h	1774	1863	1487	1774	1863	1532	1774	1863	1417	1774	44	715
Grp Volume(v), veh/h	43	253	12	20	430	29	68	8	44	9	0	69
Grp Sat Flow(s),veh/h/ln	1774	1863	1487	1774	1863	1532	1774	1863	1417	1774	0	759
Q Serve(g_s), s	0.9	3.8	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.3
Cycle Q Clear(g_c), s	0.9	3.8	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	68	668	533	36	634	521	96	334	254	17	0	102
V/C Ratio(X)	0.63	0.38	0.02	0.56	0.68	0.06	0.71	0.02	0.17	0.53	0.00	0.67
Avail Cap(c_a), veh/h	186	1490	1189	186	1490	1225	186	334	254	186	0	119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	9.1	7.9	18.5	10.8	8.5	17.7	12.9	13.3	18.8	0.0	15.7
Incr Delay (d2), s/veh	9.3	0.1	0.0	13.2	0.5	0.0	9.4	0.0	0.1	23.5	0.0	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.0	0.1	0.3	3.9	0.2	0.9	0.1	0.4	0.2	0.0	0.0	0.9
LnGrp Delay(d),s/veh	27.3	9.2	7.9	31.7	11.3	8.5	27.1	12.9	13.4	42.3	0.0	23.5
LnGrp LOS	C	A	A	C	B	A	C	B	B	D		C
Approach Vol, veh/h		308			479			120			78	
Approach Delay, s/veh		11.7			12.0			21.1			25.6	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	18.2	6.1	9.1	5.5	17.5	4.4	10.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+1), s	12.4	5.8	3.4	5.3	2.9	9.5	2.2	3.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	2.8	0.0	0.1				

Intersection Summary

























HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	114	149	187	191	190	14	111	44	137	12	79	166
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	119	155	0	199	198	0	116	46	0	12	82	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	345	294	219	797	357	145	341	290	22	213	181
Arrive On Green	0.08	0.19	0.00	0.12	0.23	0.00	0.08	0.18	0.00	0.01	0.11	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	119	155	0	199	198	0	116	46	0	12	82	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	2.4	0.0	3.6	1.5	0.0	2.1	0.7	0.0	0.2	1.3	0.0
Cycle Q Clear(g_c), s	2.1	2.4	0.0	3.6	1.5	0.0	2.1	0.7	0.0	0.2	1.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	345	294	219	797	357	145	341	290	22	213	181
V/C Ratio(X)	0.80	0.45	0.00	0.91	0.25	0.00	0.80	0.13	0.00	0.54	0.39	0.00
Avail Cap(c_a), veh/h	219	922	784	219	1314	588	219	807	686	219	807	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	11.7	0.0	14.0	10.3	0.0	14.6	11.1	0.0	15.9	13.3	0.0
Incr Delay (d2), s/veh	12.0	0.3	0.0	36.4	0.1	0.0	11.6	0.1	0.0	18.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	1.2	0.0	3.9	0.7	0.0	1.5	0.4	0.0	0.2	0.7	0.0
LnGrp Delay(d),s/veh	26.6	12.0	0.0	50.4	10.3	0.0	26.2	11.1	0.0	34.2	13.7	0.0
LnGrp LOS	C	B		D	B		C	B		C	B	
Approach Vol, veh/h		274			397			162			94	
Approach Delay, s/veh		18.4			30.4			21.9			16.3	
Approach LOS		B			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	9.9	8.0	10.0	6.6	7.7	6.7	11.3				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	2.7	5.6	4.4	4.1	3.3	4.1	3.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	1.2	0.0	0.3	0.0	1.0				
Intersection Summary												
HCM 2010 Ctrl Delay			23.9									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	31	0	15	1	4	2	1	42	136	2	1	212	115
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	0	16	1	4	2	1	44	142	2	1	221	120

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	518	518	286	523	577	143	356	343	0	0	144	0	0
Stage 1	285	285	-	230	232	-	-	-	-	-	-	-	-
Stage 2	233	233	-	293	345	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	-	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	-	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	468	462	753	465	427	905	-	1216	-	-	1438	-	-
Stage 1	722	676	-	773	713	-	-	-	-	-	-	-	-
Stage 2	770	712	-	715	636	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	462	461	750	454	426	905	~ -45	~ -45	-	-	1438	-	-
Mov Cap-2 Maneuver	462	461	-	454	426	-	-	-	-	-	-	-	-
Stage 1	722	674	-	773	713	-	-	-	-	-	-	-	-
Stage 2	764	712	-	698	634	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	12.2		0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	+	-	-	462	750	507	1438	-	-
HCM Lane V/C Ratio	-	-	-	0.07	0.021	0.014	0.001	-	-
HCM Control Delay (s)	-	-	-	13.4	9.9	12.2	7.5	-	-
HCM Lane LOS	-	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.1	0	0	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection																
Intersection Delay, s/veh10.4																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	79	69	27	0	37	152	4	0	49	113	37	0	2	68	120
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	82	72	28	0	39	158	4	0	51	118	39	0	2	71	125
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10	10.6	10.3	10.6
HCM LOS	A	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	75%	0%	72%	0%	97%	0%	36%
Vol Right, %	0%	25%	0%	28%	0%	3%	0%	64%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	150	79	96	37	156	2	188
LT Vol	49	0	79	0	37	0	2	0
Through Vol	0	113	0	69	0	152	0	68
RT Vol	0	37	0	27	0	4	0	120
Lane Flow Rate	51	156	82	100	39	162	2	196
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.091	0.25	0.148	0.161	0.069	0.268	0.004	0.3
Departure Headway (Hd)	6.439	5.759	6.493	5.788	6.463	5.939	6.471	5.513
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	623	553	620	555	606	554	652
Service Time	4.171	3.491	4.224	3.519	4.194	3.67	4.202	3.244
HCM Lane V/C Ratio	0.092	0.25	0.148	0.161	0.07	0.267	0.004	0.301
HCM Control Delay	9.8	10.4	10.4	9.6	9.7	10.8	9.2	10.6
HCM Lane LOS	A	B	B	A	A	B	A	B
HCM 95th-tile Q	0.3	1	0.5	0.6	0.2	1.1	0	1.3

Intersection

Intersection Delay, s/veh 9.4
Intersection LOS A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	68	118	0	82	130	0	164	55
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	71	123	0	85	135	0	171	57
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach

	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.4	9.4	10.2
HCM LOS	A	A	B

Lane

	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	75%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	25%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	68	118	82	130
LT Vol	164	0	0	82	0
Through Vol	0	68	0	0	130
RT Vol	55	0	118	0	0
Lane Flow Rate	228	71	123	85	135
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.311	0.105	0.159	0.138	0.199
Departure Headway (Hd)	4.903	5.359	4.653	5.808	5.303
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	730	666	767	615	674
Service Time	2.948	3.115	2.408	3.563	3.058
HCM Lane V/C Ratio	0.312	0.107	0.16	0.138	0.2
HCM Control Delay	10.2	8.7	8.3	9.5	9.4
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.6	0.5	0.7

Intersection																
Intersection Delay, s/veh	8.5															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	108	36	1	0	0	77	12	0	10	6	0	0	7	1	110
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	113	38	1	0	0	80	13	0	10	6	0	0	7	1	115
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.9	8.4	8.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	97%	100%	87%	0%	1%
Vol Right, %	0%	0%	0%	3%	0%	13%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	6	108	37	0	89	7	111
LT Vol	10	0	108	0	0	0	7	0
Through Vol	0	6	0	36	0	77	0	1
RT Vol	0	0	0	1	0	12	0	110
Lane Flow Rate	10	6	112	39	0	93	7	116
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.017	0.009	0.17	0.053	0	0.127	0.012	0.144
Departure Headway (Hd)	5.791	5.287	5.445	4.924	5.009	4.914	5.694	4.494
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	619	678	660	728	0	731	630	799
Service Time	3.516	3.013	3.165	2.645	2.731	2.636	3.413	2.213
HCM Lane V/C Ratio	0.016	0.009	0.17	0.054	0	0.127	0.011	0.145
HCM Control Delay	8.6	8.1	9.3	7.9	7.7	8.4	8.5	8
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.2	0	0.4	0	0.5

Intersection

Int Delay, s/veh 2.2

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2	249	124	94	109	35	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	None	-	Yield
Storage Length	-	-	0	75	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	2	259	129	98	114	36	52

Major/Minor

	Major1		Major2		Minor1	
Conflicting Flow All	114	0	0	259	0	568
Stage 1	-	-	-	-	-	259
Stage 2	-	-	-	-	-	309
Critical Hdwy	-	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	-	5.42
Follow-up Hdwy	-	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	-	1306	-	484
Stage 1	-	-	-	-	-	784
Stage 2	-	-	-	-	-	745
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1306	-	448
Mov Cap-2 Maneuver	-	-	-	-	-	448
Stage 1	-	-	-	-	-	784
Stage 2	-	-	-	-	-	689

Approach

	EB	WB	NB
HCM Control Delay, s		3.7	8.6
HCM LOS			A

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1088	-	-	1306	-
HCM Lane V/C Ratio	0.081	-	-	0.075	-
HCM Control Delay (s)	8.6	-	-	8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	14	272	1	197	54	15	8
Conflicting Peds, #/hr	0	0	0	0	2	0	1
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	125
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	15	283	1	205	56	16	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	262	0	283
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1302	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1302	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1302	-	-	-	491	804
HCM Lane V/C Ratio	0.011	-	-	-	0.032	0.01
HCM Control Delay (s)	7.8	-	-	-	12.6	9.5
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	47	192	275	99	18	16
Conflicting Peds, #/hr	0	0	0	5	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	200	286	103	19	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	391	0	637
Stage 1	-	-	339
Stage 2	-	-	298
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1168	-	441
Stage 1	-	-	722
Stage 2	-	-	753
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1168	-	420
Mov Cap-2 Maneuver	-	-	420
Stage 1	-	-	721
Stage 2	-	-	717

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1168	-	-	-	518
HCM Lane V/C Ratio	0.042	-	-	-	0.068
HCM Control Delay (s)	8.2	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection

Intersection Delay, s/veh 11.6
 Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	4	32	153	0	9	30	0	0	370	18	13	0	0	3	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	33	159	0	9	31	0	0	385	19	14	0	0	3	19
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.2	8.7	13.2	7.7
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	92%	2%	23%	0%
Vol Thru, %	4%	17%	77%	14%
Vol Right, %	3%	81%	0%	86%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	401	189	39	21
LT Vol	370	4	9	0
Through Vol	18	32	30	3
RT Vol	13	153	0	18
Lane Flow Rate	418	197	41	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.543	0.25	0.06	0.027
Departure Headway (Hd)	4.678	4.577	5.302	4.478
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	769	782	672	792
Service Time	2.724	2.621	3.362	2.545
HCM Lane V/C Ratio	0.544	0.252	0.061	0.028
HCM Control Delay	13.2	9.2	8.7	7.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	3.3	1	0.2	0.1

Intersection																
Intersection Delay, s/veh11.2																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	297	0	50	0	0	0	0	1	0	53	11	0	39	64	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	309	0	52	0	0	0	0	1	0	55	11	0	41	67	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	12.4	9.2	8.3
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	83%	0%	0%	0%	100%	100%
Vol Right, %	17%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	297	50	39	32	32
LT Vol	0	297	0	39	0	0
Through Vol	54	0	0	0	32	32
RT Vol	11	0	50	0	0	0
Lane Flow Rate	68	309	52	41	33	33
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.108	0.475	0.063	0.069	0.052	0.036
Departure Headway (Hd)	5.736	5.523	4.322	6.112	5.607	3.858
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	623	653	826	585	638	924
Service Time	3.491	3.266	2.065	3.854	3.349	1.599
HCM Lane V/C Ratio	0.109	0.473	0.063	0.07	0.052	0.036
HCM Control Delay	9.2	13.2	7.4	9.3	8.7	6.7
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.4	2.6	0.2	0.2	0.2	0.1

Intersection																
Intersection Delay, s/veh12.9																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	33	2	432	0	25	325	0	0	0	70	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	34	2	450	0	26	339	0	0	0	73	34
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	16	10	9.1
HCM LOS	C	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	97%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	3%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	163	163	34	433	35	35	33
LT Vol	25	0	0	33	0	0	0	0
Through Vol	0	163	163	1	1	35	35	0
RT Vol	0	0	0	0	432	0	0	33
Lane Flow Rate	26	169	169	35	451	36	36	34
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.049	0.294	0.211	0.062	0.64	0.069	0.069	0.041
Departure Headway (Hd)	6.765	6.256	4.492	6.288	5.108	6.766	6.766	4.28
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	574	797	570	708	529	529	833
Service Time	4.505	3.996	2.231	4.019	2.839	4.514	4.514	2.027
HCM Lane V/C Ratio	0.049	0.294	0.212	0.061	0.637	0.068	0.068	0.041
HCM Control Delay	9.9	11.6	8.4	9.4	16.5	10	10	7.2
HCM Lane LOS	A	B	A	A	C	A	A	A
HCM 95th-tile Q	0.2	1.2	0.8	0.2	4.6	0.2	0.2	0.1

Intersection			
Intersection Delay, s/veh	16.3		
Intersection LOS	C		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	788	159	180
Demand Flow Rate, veh/h	804	162	183
Vehicles Circulating, veh/h	123	341	49
Vehicles Exiting, veh/h	109	586	454
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	20.9	6.7	4.9
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	804	162	183
Cap Entry Lane, veh/h	999	803	1076
Entry HV Adj Factor	0.980	0.982	0.983
Flow Entry, veh/h	788	159	180
Cap Entry, veh/h	979	789	1058
V/C Ratio	0.805	0.202	0.170
Control Delay, s/veh	20.9	6.7	4.9
LOS	C	A	A
95th %tile Queue, veh	9	1	1

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	278	274	20	142	11	4
Conflicting Peds, #/hr	0	6	0	0	0	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	75	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	290	285	21	148	11	4

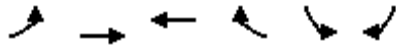
Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	635
Stage 1	-	-	445
Stage 2	-	-	190
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	987	443
Stage 1	-	-	646
Stage 2	-	-	842
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	987	427
Mov Cap-2 Maneuver	-	-	427
Stage 1	-	-	639
Stage 2	-	-	820

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	427	606	-	-	987	-
HCM Lane V/C Ratio	0.027	0.007	-	-	0.021	-
HCM Control Delay (s)	13.7	11	-	-	8.7	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
 85: Old Davis Rd & Market Hall Dr

Existing Conditions
 AM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	64	218	117	12	23	45
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.92			0.87	1.00	0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	67	227	122	12	24	47
Adj No. of Lanes	0	1	1	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	180	377	430	42	260	509
Arrive On Green	0.26	0.26	0.26	0.26	0.54	0.54
Sat Flow, veh/h	261	1441	1645	162	484	948
Grp Volume(v), veh/h	294	0	0	134	72	0
Grp Sat Flow(s),veh/h/ln	1702	0	0	1807	1453	0
Q Serve(g_s), s	2.8	0.0	0.0	2.4	1.0	0.0
Cycle Q Clear(g_c), s	5.9	0.0	0.0	2.4	1.0	0.0
Prop In Lane	0.23			0.09	0.33	0.65
Lane Grp Cap(c), veh/h	557	0	0	473	780	0
V/C Ratio(X)	0.53	0.00	0.00	0.28	0.09	0.00
Avail Cap(c_a), veh/h	1197	0	0	727	950	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.9	0.0	0.0	11.7	4.5	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	1.2	0.4	0.0
LnGrp Delay(d),s/veh	13.7	0.0	0.0	12.0	4.5	0.0
LnGrp LOS	B			B	A	
Approach Vol, veh/h		294	134		72	
Approach Delay, s/veh		13.7	12.0		4.5	
Approach LOS		B	B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				14.4		25.4		14.4
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				7.9		3.0		4.4
Green Ext Time (p_c), s				2.6		0.2		2.1

Intersection Summary		
HCM 2010 Ctrl Delay		11.9
HCM 2010 LOS		B

Notes
 User approved volume balancing among the lanes for turning movement.

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	2	23	157	59	1	55	125	9	0	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	24	164	61	1	57	130	9	0	2	2	1
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.8	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	40%	100%	0%	100%	0%
Vol Thru, %	40%	0%	73%	0%	93%
Vol Right, %	20%	0%	27%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	25	216	56	134
LT Vol	2	25	0	56	0
Through Vol	2	0	157	0	125
RT Vol	1	0	59	0	9
Lane Flow Rate	5	26	225	58	140
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.007	0.037	0.278	0.084	0.179
Departure Headway (Hd)	4.901	5.141	4.449	5.165	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	735	693	803	690	772
Service Time	2.901	2.897	2.205	2.922	2.374
HCM Lane V/C Ratio	0.007	0.038	0.28	0.084	0.181
HCM Control Delay	7.9	8.1	8.9	8.4	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.1	1.1	0.3	0.6

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach
 Opposing Lanes
 Conflicting Approach Left
 Conflicting Lanes Left
 Conflicting Approach Right
 Conflicting Lanes Right
 HCM Control Delay
 HCM LOS

Lane

Intersection

Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	9	150	184	2	7	6
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	156	192	2	7	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	194	0	368
Stage 1	-	-	193
Stage 2	-	-	175
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1379	-	632
Stage 1	-	-	840
Stage 2	-	-	855
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1379	-	628
Mov Cap-2 Maneuver	-	-	672
Stage 1	-	-	840
Stage 2	-	-	849

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1379	-	-	-	744
HCM Lane V/C Ratio	0.007	-	-	-	0.018
HCM Control Delay (s)	7.6	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 2010 Signalized Intersection Summary
59: F St & E 14th St

Existing Conditions
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	141	80	69	339	286	133		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	150	85	73	361	304	141		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	285	255	133	960	620	520		
Arrive On Green	0.16	0.16	0.08	0.54	0.33	0.33		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1562		
Grp Volume(v), veh/h	150	85	73	361	304	141		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1562		
Q Serve(g_s), s	2.4	1.5	1.2	3.7	4.1	2.1		
Cycle Q Clear(g_c), s	2.4	1.5	1.2	3.7	4.1	2.1		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	285	255	133	960	620	520		
V/C Ratio(X)	0.53	0.33	0.55	0.38	0.49	0.27		
Avail Cap(c_a), veh/h	1134	1012	907	1747	1220	1023		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	12.0	11.6	14.0	4.2	8.3	7.7		
Incr Delay (d2), s/veh	1.5	0.8	3.5	0.2	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.7	0.7	0.7	1.9	2.1	0.9		
LnGrp Delay(d),s/veh	13.5	12.4	17.4	4.5	8.9	7.9		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	235			434	445			
Approach Delay, s/veh	13.1			6.7	8.6			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.0	6.3	14.9				21.3
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.4	3.2	6.1				5.7
Green Ext Time (p_c), s		0.6	0.1	4.2				5.1
Intersection Summary								
HCM 2010 Ctrl Delay			8.8					
HCM 2010 LOS			A					

HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↘			↕			↕	
Volume (veh/h)	10	225	47	43	159	10	59	136	42	17	88	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.90	0.99		0.77
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1825	1900	1900	1861	1900
Adj Flow Rate, veh/h	11	239	50	46	169	11	63	145	45	18	94	3
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2
Cap, veh/h	99	1053	866	713	993	65	170	252	69	126	384	11
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	21	1829	1506	1073	1726	112	275	1050	287	126	1600	46
Grp Volume(v), veh/h	250	0	50	46	0	180	253	0	0	115	0	0
Grp Sat Flow(s),veh/h/ln	1851	0	1506	1073	0	1838	1612	0	0	1772	0	0
Q Serve(g_s), s	0.0	0.0	0.6	1.0	0.0	2.0	2.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	0.0	0.6	3.8	0.0	2.0	6.0	0.0	0.0	2.2	0.0	0.0
Prop In Lane	0.04		1.00	1.00		0.06	0.25		0.18	0.16		0.03
Lane Grp Cap(c), veh/h	1152	0	866	713	0	1058	491	0	0	522	0	0
V/C Ratio(X)	0.22	0.00	0.06	0.06	0.00	0.17	0.52	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	1195	0	903	739	0	1102	873	0	0	933	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.5	0.0	4.0	5.4	0.0	4.3	14.7	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.1	0.8	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.3	0.3	0.0	1.0	2.8	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	4.6	0.0	4.1	5.5	0.0	4.4	15.6	0.0	0.0	13.6	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		300			226			253			115	
Approach Delay, s/veh		4.5			4.6			15.6			13.6	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.4		29.0		14.4		29.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0				
Max Q Clear Time (g_c+I1), s		8.0		4.9		4.2		5.8				
Green Ext Time (p_c), s		1.9		3.0		2.1		3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			8.8									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↕	↕	↑	↕
Volume (veh/h)	24	235	25	27	149	67	39	321	27	68	265	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.96	1.00		0.90	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1859	1900	1900	1841	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	26	250	27	29	159	71	41	341	29	72	282	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	120	464	48	128	338	138	73	585	441	122	656	466
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.05	0.33	0.33	0.07	0.35	0.35
Sat Flow, veh/h	73	1538	158	92	1120	458	1601	1776	1339	1774	1863	1323
Grp Volume(v), veh/h	303	0	0	259	0	0	41	341	29	72	282	30
Grp Sat Flow(s),veh/h/ln	1768	0	0	1670	0	0	1601	1776	1339	1774	1863	1323
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.4	0.6	1.6	4.6	0.6
Cycle Q Clear(g_c), s	5.6	0.0	0.0	4.9	0.0	0.0	1.0	6.4	0.6	1.6	4.6	0.6
Prop In Lane	0.09		0.09	0.11		0.27	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	631	0	0	604	0	0	73	585	441	122	656	466
V/C Ratio(X)	0.48	0.00	0.00	0.43	0.00	0.00	0.56	0.58	0.07	0.59	0.43	0.06
Avail Cap(c_a), veh/h	1231	0	0	1166	0	0	641	1377	1039	710	1445	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	0.0	11.5	0.0	0.0	18.7	11.1	9.2	18.1	9.9	8.6
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.5	0.0	0.0	6.5	0.9	0.1	4.5	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	2.4	0.0	0.0	0.6	3.3	0.2	0.9	2.4	0.2
LnGrp Delay(d),s/veh	12.3	0.0	0.0	11.9	0.0	0.0	25.2	12.1	9.3	22.5	10.3	8.6
LnGrp LOS	B			B			C	B	A	C	B	A
Approach Vol, veh/h		303			259			411			384	
Approach Delay, s/veh		12.3			11.9			13.2			12.5	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	17.2		16.1	5.8	18.1		16.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+1), s	13.6	8.4		7.6	3.0	6.6		6.9				
Green Ext Time (p_c), s	0.1	4.4		3.6	0.0	4.5		3.6				
Intersection Summary												
HCM 2010 Ctrl Delay				12.5								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
 49: Russell Blvd & Sycamore Ln



























Existing Conditions
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗		↑		↖		↗
Volume (veh/h)	205	426	0	0	618	66	0	0	0	80	0	157
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.82	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	218	453	0	0	657	70	0	0	0	85	0	167
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	276	2112	0	0	1063	113	0	4	0	304	0	0
Arrive On Green	0.16	0.60	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.17	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	3246	335	0	11765	0	1774	85	
Grp Volume(v), veh/h	218	453	0	0	368	359	0	0	0	85	17.3	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1718	0	1863	0	1774	B	
Q Serve(g_s), s	5.6	2.8	0.0	0.0	8.2	8.2	0.0	0.0	0.0	2.0		
Cycle Q Clear(g_c), s	5.6	2.8	0.0	0.0	8.2	8.2	0.0	0.0	0.0	2.0		
Prop In Lane	1.00		0.00	0.00		0.19	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	276	2112	0	0	597	579	0	4	0	304		
V/C Ratio(X)	0.79	0.21	0.00	0.00	0.62	0.62	0.00	0.00	0.00	0.28		
Avail Cap(c_a), veh/h	570	2268	0	0	1134	1101	0	753	0	717		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	19.1	4.4	0.0	0.0	13.0	13.0	0.0	0.0	0.0	16.9		
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.0	0.0	0.0	4.1	4.0	0.0	0.0	0.0	1.0		
LnGrp Delay(d),s/veh	21.1	4.4	0.0	0.0	13.4	13.5	0.0	0.0	0.0	17.3		
LnGrp LOS	C	A			B	B				B		
Approach Vol, veh/h		671			727			0				
Approach Delay, s/veh		9.8			13.4			0.0				
Approach LOS		A			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		32.9			12.2	20.7	14.0	0.0				
Change Period (Y+Rc), s		4.9			4.9	4.9	6.0	6.0				
Max Green Setting (Gmax), s		30.1			15.1	30.1	19.0	19.0				
Max Q Clear Time (g_c+I1), s		4.8			7.6	10.2	4.0	0.0				
Green Ext Time (p_c), s		4.2			0.2	4.0	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay					12.0							
HCM 2010 LOS					B							
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	83	375	48	177	572	115	175	255	330	143	113	51
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.83	1.00		1.00	1.00		0.74
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	88	399	0	188	609	122	186	271	0	152	120	54
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	986	0	284	1052	392	232	807	0	193	466	180
Arrive On Green	0.06	0.28	0.00	0.08	0.30	0.30	0.13	0.23	0.00	0.11	0.21	0.21
Sat Flow, veh/h	1774	3632	0	3442	3539	1318	1774	3632	0	1774	2257	870
Grp Volume(v), veh/h	88	399	0	188	609	122	186	271	0	152	90	84
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1318	1774	1770	0	1774	1770	1358
Q Serve(g_s), s	3.2	6.1	0.0	3.5	9.7	4.7	6.7	4.2	0.0	5.5	2.8	3.5
Cycle Q Clear(g_c), s	3.2	6.1	0.0	3.5	9.7	4.7	6.7	4.2	0.0	5.5	2.8	3.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.64
Lane Grp Cap(c), veh/h	113	986	0	284	1052	392	232	807	0	193	365	280
V/C Ratio(X)	0.78	0.40	0.00	0.66	0.58	0.31	0.80	0.34	0.00	0.79	0.25	0.30
Avail Cap(c_a), veh/h	268	1603	0	519	1603	597	536	807	0	536	401	307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	19.4	0.0	29.5	19.8	18.0	28.0	21.4	0.0	28.8	22.0	22.2
Incr Delay (d2), s/veh	4.3	0.1	0.0	1.0	0.2	0.2	2.5	0.1	0.0	2.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	3.0	0.0	1.7	4.8	1.7	3.5	2.1	0.0	2.8	1.4	1.3
LnGrp Delay(d),s/veh	34.8	19.5	0.0	30.5	19.9	18.2	30.5	21.5	0.0	31.4	22.1	22.5
LnGrp LOS	C	B		C	B	B	C	C		C	C	C
Approach Vol, veh/h		487			919			457			326	
Approach Delay, s/veh		22.3			21.9			25.1			26.5	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.5	23.5	13.6	18.7	9.2	24.7	12.2	20.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	10.0	30.0	20.0	15.0	10.0	30.0	20.0	15.0				
Max Q Clear Time (g_c+I1), s	5.5	8.1	8.7	5.5	5.2	11.7	7.5	6.2				
Green Ext Time (p_c), s	0.1	5.2	0.2	1.2	0.0	4.9	0.2	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			23.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	809	61	2	23	905	0	166
Conflicting Peds, #/hr	0	31	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	-	0	1	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	861	65	2	24	963	0	177

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1102
Stage 1	-	-	893
Stage 2	-	-	535
Critical Hdwy	-	6.44	4.14
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.52	2.22
Pot Cap-1 Maneuver	-	285	734
Stage 1	-	-	360
Stage 2	-	-	551
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	603	603
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	360
Stage 2	-	-	537

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	546	-	-	603	-
HCM Lane V/C Ratio	0.323	-	-	0.044	-
HCM Control Delay (s)	14.7	-	-	11.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-

HCM 2010 Signalized Intersection Summary
46: Howard Way/College Park & Russell Blvd

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	770	78	73	682	18	172	3	152	6	0	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.94	1.00		0.91	1.00		0.55
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	17	819	83	78	726	19	183	3	162	6	0	13
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1185	120	111	1459	38	348	5	277	61	64	30
Arrive On Green	0.02	0.37	0.37	0.06	0.41	0.41	0.20	0.20	0.20	0.03	0.00	0.03
Sat Flow, veh/h	1774	3213	326	1774	3517	92	1774	26	1414	1774	1863	878
Grp Volume(v), veh/h	17	451	451	78	365	380	183	0	165	6	0	13
Grp Sat Flow(s),veh/h/ln	1774	1770	1769	1774	1770	1840	1774	0	1440	1774	1863	878
Q Serve(g_s), s	0.5	12.2	12.3	2.4	8.6	8.6	5.2	0.0	5.9	0.2	0.0	0.8
Cycle Q Clear(g_c), s	0.5	12.2	12.3	2.4	8.6	8.6	5.2	0.0	5.9	0.2	0.0	0.8
Prop In Lane	1.00		0.18	1.00		0.05	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	29	653	653	111	734	763	348	0	282	61	64	30
V/C Ratio(X)	0.58	0.69	0.69	0.71	0.50	0.50	0.53	0.00	0.58	0.10	0.00	0.43
Avail Cap(c_a), veh/h	250	936	935	250	936	973	963	0	782	907	952	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	15.2	15.2	26.1	12.2	12.2	20.4	0.0	20.7	26.6	0.0	26.9
Incr Delay (d2), s/veh	33.1	0.5	0.5	3.0	0.2	0.2	0.5	0.0	0.7	0.3	0.0	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	6.0	6.0	1.3	4.2	4.4	2.6	0.0	2.4	0.1	0.0	0.2	
LnGrp Delay(d),s/veh	60.8	15.7	15.7	29.1	12.4	12.4	20.9	0.0	21.4	26.8	0.0	30.5
LnGrp LOS	E	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		919			823			348			19	
Approach Delay, s/veh		16.5			14.0			21.1			29.3	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.5	25.9		7.9	4.9	28.5		15.3				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		4.2				
Max Green Setting (Gmax), s	30.0	30.0		29.0	8.0	30.0		30.8				
Max Q Clear Time (g_c+1), s	14.3	14.3		2.8	2.5	10.6		7.9				
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	7.3		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				16.4								
HCM 2010 LOS				B								

HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗			↖	↗	↖	↗		↖		↗
Volume (veh/h)	21	932	0	0	657	12	99	29	42	12	0	18
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	22	991	0	0	699	13	105	31	45	13	0	19
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	505	2036	0	0	2043	38	400	149	216	0	0	0
Arrive On Green	0.58	0.58	0.00	0.00	0.58	0.58	0.23	0.23	0.23	0.00	0.00	0.00
Sat Flow, veh/h	732	3632	0	0	3643	66	1774	660	957		0	
Grp Volume(v), veh/h	22	991	0	0	348	364	105	0	76		0.0	
Grp Sat Flow(s),veh/h/ln	732	1770	0	0	1770	1847	1774	0	1617			
Q Serve(g_s), s	0.7	7.5	0.0	0.0	4.7	4.7	2.2	0.0	1.7			
Cycle Q Clear(g_c), s	5.4	7.5	0.0	0.0	4.7	4.7	2.2	0.0	1.7			
Prop In Lane	1.00		0.00	0.00		0.04	1.00		0.59			
Lane Grp Cap(c), veh/h	505	2036	0	0	1018	1062	400	0	364			
V/C Ratio(X)	0.04	0.49	0.00	0.00	0.34	0.34	0.26	0.00	0.21			
Avail Cap(c_a), veh/h	830	3607	0	0	1803	1882	786	0	716			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.5	5.7	0.0	0.0	5.1	5.1	14.4	0.0	14.2			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.2	0.1	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	3.6	0.0	0.0	0.0	2.3	2.4	1.1	0.0	0.8			
LnGrp Delay(d),s/veh	6.5	5.8	0.0	0.0	5.3	5.3	14.5	0.0	14.3			
LnGrp LOS	A	A			A	A	B		B			
Approach Vol, veh/h		1013			712			181				
Approach Delay, s/veh		5.8			5.3			14.4				
Approach LOS		A			A			B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		30.0				30.0		15.2				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		9.5				6.7		4.2				
Green Ext Time (p_c), s		16.5				17.0		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay				6.4								
HCM 2010 LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	499	424	47	429	50	197	169	60	43	139	16
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.92	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	24	531	0	50	456	0	210	180	64	46	148	17
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	1138	0	108	1232	0	272	505	395	101	283	32
Arrive On Green	0.03	0.32	0.00	0.06	0.35	0.00	0.15	0.27	0.27	0.06	0.17	0.17
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1455	1774	1615	186
Grp Volume(v), veh/h	24	531	0	50	456	0	210	180	64	46	0	165
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1455	1774	0	1801
Q Serve(g_s), s	0.6	5.8	0.0	1.3	4.7	0.0	5.5	3.8	1.6	1.2	0.0	4.0
Cycle Q Clear(g_c), s	0.6	5.8	0.0	1.3	4.7	0.0	5.5	3.8	1.6	1.2	0.0	4.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	61	1138	0	108	1232	0	272	505	395	101	0	315
V/C Ratio(X)	0.40	0.47	0.00	0.46	0.37	0.00	0.77	0.36	0.16	0.45	0.00	0.52
Avail Cap(c_a), veh/h	422	2671	0	422	2671	0	605	635	496	605	0	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	13.1	0.0	22.0	11.8	0.0	19.7	14.2	13.4	22.1	0.0	18.1
Incr Delay (d2), s/veh	1.6	0.1	0.0	1.2	0.1	0.0	4.6	0.2	0.1	1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.8	0.0	0.7	2.3	0.0	3.0	1.9	0.7	0.6	0.0	2.0	
LnGrp Delay(d),s/veh	24.4	13.2	0.0	23.1	11.9	0.0	24.3	14.4	13.5	23.2	0.0	18.6
LnGrp LOS	C	B		C	B		C	B	B	C		B
Approach Vol, veh/h		555			506			454			211	
Approach Delay, s/veh		13.7			13.0			18.8			19.6	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	19.0	10.9	12.0	5.2	20.3	6.3	16.6				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+1), s	3	7.8	7.5	6.0	2.6	6.7	3.2	5.8				
Green Ext Time (p_c), s	0.0	5.0	0.4	1.1	0.0	5.0	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			15.6									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	63	466	59	38	358	67	60	180	42	49	197	63
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.86	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1785	1900	1863	1847	1900	1776	1800	1900	1863	1863	1900
Adj Flow Rate, veh/h	67	496	63	40	381	71	64	191	45	52	210	67
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	83	786	100	118	787	147	81	278	66	72	252	80
Arrive On Green	0.05	0.51	0.51	0.13	1.00	1.00	0.05	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1533	1540	196	1774	1505	281	1691	1360	320	1774	1277	408
Grp Volume(v), veh/h	67	0	559	40	0	452	64	0	236	52	0	277
Grp Sat Flow(s),veh/h/ln	1533	0	1736	1774	0	1786	1691	0	1681	1774	0	1685
Q Serve(g_s), s	3.9	0.0	20.9	1.8	0.0	0.0	3.4	0.0	11.7	2.6	0.0	14.2
Cycle Q Clear(g_c), s	3.9	0.0	20.9	1.8	0.0	0.0	3.4	0.0	11.7	2.6	0.0	14.2
Prop In Lane	1.00		0.11	1.00		0.16	1.00		0.19	1.00		0.24
Lane Grp Cap(c), veh/h	83	0	886	118	0	934	81	0	344	72	0	333
V/C Ratio(X)	0.81	0.00	0.63	0.34	0.00	0.48	0.79	0.00	0.69	0.73	0.00	0.83
Avail Cap(c_a), veh/h	119	0	886	118	0	934	94	0	355	99	0	356
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.00	0.67	0.84	0.00	0.84	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	0.0	15.9	37.2	0.0	0.0	42.4	0.0	33.1	42.7	0.0	34.7
Incr Delay (d2), s/veh	10.5	0.0	2.3	0.5	0.0	1.5	27.5	0.0	4.3	8.1	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	10.5	0.9	0.0	0.4	2.2	0.0	5.8	1.4	0.0	7.9	
LnGrp Delay(d),s/veh	52.6	0.0	18.2	37.7	0.0	1.5	70.0	0.0	37.4	50.8	0.0	48.2
LnGrp LOS	D		B	D		A	E		D	D		D
Approach Vol, veh/h		626			492			300			329	
Approach Delay, s/veh		21.9			4.5			44.3			48.6	
Approach LOS		C			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	49.9	8.3	21.8	8.9	51.1	7.6	22.4				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	44.0	5.0	19.0	7.0	43.0	5.0	19.0					
Max Q Clear Time (g_c+1), s	22.9	5.4	16.2	5.9	2.0	4.6	13.7					
Green Ext Time (p_c), s	0.0	9.6	0.0	0.7	0.0	12.6	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	34	467	56	55	387	45	49	91	41	40	48	27
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.91	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1794	1900	1863	1850	1900	1681	1781	1900	1827	1625	1900
Adj Flow Rate, veh/h	36	497	60	59	412	48	52	97	44	43	51	29
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	753	91	128	782	91	98	255	116	106	204	116
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1559	188	1774	1618	188	1601	1121	508	1740	895	509
Grp Volume(v), veh/h	36	0	557	59	0	460	52	0	141	43	0	80
Grp Sat Flow(s),veh/h/ln	1533	0	1747	1774	0	1806	1601	0	1629	1740	0	1404
Q Serve(g_s), s	1.9	0.0	2.6	2.9	0.0	15.9	2.8	0.0	6.6	2.1	0.0	4.2
Cycle Q Clear(g_c), s	1.9	0.0	2.6	2.9	0.0	15.9	2.8	0.0	6.6	2.1	0.0	4.2
Prop In Lane	1.00		0.11	1.00		0.10	1.00		0.31	1.00		0.36
Lane Grp Cap(c), veh/h	111	0	844	128	0	873	98	0	371	106	0	320
V/C Ratio(X)	0.33	0.00	0.66	0.46	0.00	0.53	0.53	0.00	0.38	0.40	0.00	0.25
Avail Cap(c_a), veh/h	111	0	844	128	0	873	98	0	371	106	0	320
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.5	0.0	0.8	40.1	0.0	16.1	41.0	0.0	29.4	40.7	0.0	28.5
Incr Delay (d2), s/veh	7.6	0.0	4.0	11.5	0.0	2.3	19.1	0.0	2.9	11.0	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	1.6	1.8	0.0	8.5	1.8	0.0	3.2	1.4	0.0	1.8	
LnGrp Delay(d),s/veh	44.2	0.0	4.8	51.5	0.0	18.4	60.1	0.0	32.3	51.7	0.0	30.3
LnGrp LOS	D		A	D		B	E		C	D		C
Approach Vol, veh/h		593			519			193			123	
Approach Delay, s/veh		7.2			22.2			39.8			37.8	
Approach LOS		A			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+1), s	11.5	4.6	4.8	6.2	3.9	17.9	4.1	8.6				
Green Ext Time (p_c), s	0.0	12.5	0.0	0.8	0.0	10.6	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				19.7								
HCM 2010 LOS				B								

Intersection

Intersection Delay, s/veh 11.2

Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	45	81	22	0	20	52	36	0	12	192	39	0	40	205	41
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	86	23	0	21	55	38	0	13	204	41	0	43	218	44
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	10.5	9.8	11.7	11.6
HCM LOS	B	A	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	30%	19%	100%	0%
Vol Thru, %	0%	83%	55%	48%	0%	83%
Vol Right, %	0%	17%	15%	33%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	231	148	108	40	246
LT Vol	12	0	45	20	40	0
Through Vol	0	192	81	52	0	205
RT Vol	0	39	22	36	0	41
Lane Flow Rate	13	246	157	115	43	262
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.022	0.382	0.246	0.178	0.073	0.403
Departure Headway (Hd)	6.223	5.597	5.616	5.572	6.165	5.541
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	644	639	643	582	649
Service Time	3.956	3.33	3.655	3.613	3.895	3.271
HCM Lane V/C Ratio	0.023	0.382	0.246	0.179	0.074	0.404
HCM Control Delay	9.1	11.8	10.5	9.8	9.4	12
HCM Lane LOS	A	B	B	A	A	B
HCM 95th-tile Q	0.1	1.8	1	0.6	0.2	1.9

HCM 2010 Signalized Intersection Summary
 95: La Rue Rd & Orchard Rd

Existing Conditions
 PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↕↔		↔	↕↔	
Volume (veh/h)	84	5	27	47	9	77	28	595	53	35	255	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.70	0.99		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	89	5	29	50	10	82	30	633	56	37	271	53
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	4	747	130	15	776	430	1110	98	276	1003	189
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	8	8	1504	7	30	1564	1050	3165	279	744	2861	540
Grp Volume(v), veh/h	94	0	29	60	0	82	30	353	336	37	164	160
Grp Sat Flow(s),veh/h/ln	16	0	1504	37	0	1564	1050	1770	1674	744	1770	1632
Q Serve(g_s), s	0.2	0.0	0.5	0.2	0.0	1.5	1.1	8.4	8.5	2.2	3.5	3.7
Cycle Q Clear(g_c), s	25.9	0.0	0.5	25.9	0.0	1.5	4.9	8.4	8.5	10.8	3.5	3.7
Prop In Lane	0.95		1.00	0.83		1.00	1.00		0.17	1.00		0.33
Lane Grp Cap(c), veh/h	142	0	747	145	0	776	430	620	587	276	620	572
V/C Ratio(X)	0.66	0.00	0.04	0.41	0.00	0.11	0.07	0.57	0.57	0.13	0.26	0.28
Avail Cap(c_a), veh/h	143	0	748	146	0	778	584	880	833	385	880	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	0.0	6.8	20.0	0.0	7.0	14.0	13.8	13.8	18.2	12.1	12.2
Incr Delay (d2), s/veh	10.7	0.0	0.0	1.9	0.0	0.1	0.1	0.8	0.9	0.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.2	0.9	0.0	0.6	0.3	4.3	4.1	0.5	1.7	1.7
LnGrp Delay(d),s/veh	35.7	0.0	6.8	21.9	0.0	7.1	14.1	14.6	14.7	18.4	12.4	12.5
LnGrp LOS	D		A	C		A	B	B	B	B	B	B
Approach Vol, veh/h		123			142			719			361	
Approach Delay, s/veh		28.9			13.3			14.6			13.0	
Approach LOS		C			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.4		30.0		22.4		30.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		10.5		27.9		12.8		27.9				
Green Ext Time (p_c), s		6.2		0.0		5.6		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			15.4									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Volume (veh/h)	3	3	0	27	11	78	7	349	49	161	459	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.54	1.00		0.86	1.00		0.76
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	3	0	29	12	83	7	371	52	171	488	23
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	120	0	34	14	98	13	553	77	180	777	37
Arrive On Green	0.13	0.13	0.00	0.14	0.14	0.14	0.01	0.35	0.35	0.10	0.45	0.45
Sat Flow, veh/h	909	909	0	240	99	688	1774	1563	219	1774	1735	82
Grp Volume(v), veh/h	6	0	0	124	0	0	7	0	423	171	0	511
Grp Sat Flow(s),veh/h/ln1817	0	0	0	1027	0	0	1774	0	1783	1774	0	1817
Q Serve(g_s), s	0.2	0.0	0.0	7.0	0.0	0.0	0.2	0.0	11.9	5.7	0.0	12.8
Cycle Q Clear(g_c), s	0.2	0.0	0.0	7.0	0.0	0.0	0.2	0.0	11.9	5.7	0.0	12.8
Prop In Lane	0.50		0.00	0.23		0.67	1.00		0.12	1.00		0.05
Lane Grp Cap(c), veh/h	240	0	0	146	0	0	13	0	630	180	0	814
V/C Ratio(X)	0.03	0.00	0.00	0.85	0.00	0.00	0.54	0.00	0.67	0.95	0.00	0.63
Avail Cap(c_a), veh/h	492	0	0	278	0	0	180	0	784	180	0	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	24.7	0.0	0.0	29.2	0.0	16.2	26.4	0.0	12.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	23.7	0.0	0.0	58.0	0.0	2.9	53.2	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	2.9	0.0	0.0	0.3	0.0	6.3	5.4	0.0	6.9
LnGrp Delay(d),s/veh	22.4	0.0	0.0	48.4	0.0	0.0	87.2	0.0	19.1	79.6	0.0	14.7
LnGrp LOS	C			D			F		B	E		B
Approach Vol, veh/h		6			124			430			682	
Approach Delay, s/veh		22.4			48.4			20.2			31.0	
Approach LOS		C			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	24.9		11.8	4.4	30.5		12.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	10.0	26.0		16.0	6.0	26.0		16.0				
Max Q Clear Time (g_c+17), s	13.9			2.2	2.2	14.8		9.0				
Green Ext Time (p_c), s	0.0	7.0		0.0	0.0	7.2		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				29.0								
HCM 2010 LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	125	33	0	34	125	28	0	18	160	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	133	35	0	36	133	30	0	19	170	47
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11	10.9	11.2
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	19%	18%	14%
Vol Thru, %	72%	64%	67%	62%
Vol Right, %	20%	17%	15%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	222	194	187	215
LT Vol	18	36	34	30
Through Vol	160	125	125	134
RT Vol	44	33	28	51
Lane Flow Rate	236	206	199	229
Geometry Grp	1	1	1	1
Degree of Util (X)	0.35	0.313	0.303	0.339
Departure Headway (Hd)	5.334	5.468	5.492	5.334
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	673	656	653	672
Service Time	3.376	3.515	3.539	3.378
HCM Lane V/C Ratio	0.351	0.314	0.305	0.341
HCM Control Delay	11.2	11	10.9	11.1
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.6	1.3	1.3	1.5

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	134	51
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	143	54
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.1
HCM LOS	B

Lane

Intersection													
Int Delay, s/veh	3.8												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	12	25	1	13	8	77	10	314	59	99	369	19
Conflicting Peds, #/hr	0	0	70	0	0	0	36	0	0	28	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	13	27	1	14	9	82	11	334	63	105	393	20

Major/Minor	Minor2			Minor1				Major1			Major2		
Conflicting Flow All	1151	1137	501	0	1126	1116	410	483	0	0	433	0	0
Stage 1	683	683	-	0	423	423	-	-	-	-	-	-	-
Stage 2	468	454	-	0	703	693	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	175	202	570	0	182	208	642	1080	-	-	1127	-	-
Stage 1	439	449	-	0	609	588	-	-	-	-	-	-	-
Stage 2	575	569	-	0	428	445	-	-	-	-	-	-	-
Platoon blocked, %				-				-	-	-			
Mov Cap-1 Maneuver	126	165	524	0	142	170	618	1055	-	-	1119	-	-
Mov Cap-2 Maneuver	126	165	-	0	142	170	-	-	-	-	-	-	-
Stage 1	409	383	-	0	585	564	-	-	-	-	-	-	-
Stage 2	482	546	-	0	348	380	-	-	-	-	-	-	-

Approach	EB			WB				NB			SB		
HCM Control Delay, s	23.8			18.4				0.2			1.7		
HCM LOS	C			C									

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1055	-	-	240	372	1119	-	-
HCM Lane V/C Ratio	0.01	-	-	0.204	0.28	0.094	-	-
HCM Control Delay (s)	8.4	-	-	23.8	18.4	8.6	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.7	1.1	0.3	-	-

Intersection												
Intersection Delay, s/veh	9.3											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	40	84	22	0	15	45	31	0	16	139	32
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	43	89	23	0	16	48	33	0	17	148	34
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.4	8.7	9.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	27%	16%	15%
Vol Thru, %	74%	58%	49%	56%
Vol Right, %	17%	15%	34%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	146	91	188
LT Vol	16	40	15	29
Through Vol	139	84	45	106
RT Vol	32	22	31	53
Lane Flow Rate	199	155	97	200
Geometry Grp	1	1	1	1
Degree of Util (X)	0.26	0.214	0.132	0.259
Departure Headway (Hd)	4.709	4.953	4.902	4.658
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	758	719	725	766
Service Time	2.768	3.017	2.972	2.716
HCM Lane V/C Ratio	0.263	0.216	0.134	0.261
HCM Control Delay	9.4	9.4	8.7	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	0.8	0.5	1

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	29	106	53
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	31	113	56
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.4
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	2	1	180	1	74	2	55	309	0	0	0
Conflicting Peds, #/hr	0	0	117	0	0	65	0	0	15	0	0	63
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	2	1	191	1	79	2	59	329	0	0	0

Major/Minor	Minor2			Major2			Minor1		
Conflicting Flow All	584	555	157	15	0	0	557	595	80
Stage 1	540	540	-	-	-	-	15	15	-
Stage 2	44	15	-	-	-	-	542	580	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	474	440	889	-	-	-	491	417	-
Stage 1	584	521	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	583	500	-
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuver	386	0	802	-	-	-	485	0	-
Mov Cap-2 Maneuver	386	0	-	-	-	-	485	0	-
Stage 1	527	0	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	583	0	-

Approach	EB	WB	NB
HCM Control Delay, s	12		
HCM LOS	B		-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	485	-	521	-	-	-
HCM Lane V/C Ratio	0.125	-	0.008	-	-	-
HCM Control Delay (s)	13.5	-	12	-	-	-
HCM Lane LOS	B	-	B	-	-	-
HCM 95th %tile Q(veh)	0.4	-	0	-	-	-

Intersection

Intersection Delay, s/veh 13.5
Intersection LOS B

Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	163	211	0	136	215	0	256	133
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	173	224	0	145	229	0	272	141
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach

	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.3	11.8	15.3
HCM LOS	B	B	C

Lane

	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	163	211	136	215	256	133
LT Vol	163	0	0	0	256	0
Through Vol	0	211	136	0	0	0
RT Vol	0	0	0	215	0	133
Lane Flow Rate	173	224	145	229	272	141
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.333	0.4	0.261	0.367	0.536	0.231
Departure Headway (Hd)	6.92	6.411	6.498	5.784	7.08	5.865
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	518	559	551	620	509	611
Service Time	4.679	4.17	4.259	3.545	4.833	3.617
HCM Lane V/C Ratio	0.334	0.401	0.263	0.369	0.534	0.231
HCM Control Delay	13.1	13.4	11.6	11.9	17.8	10.4
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1.4	1.9	1	1.7	3.1	0.9

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	378	61	74	301	70	33	41	69	92	36	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.93	1.00		0.89	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	9	402	65	79	320	74	35	44	73	98	38	20
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	21	533	86	119	581	134	105	94	455	125	29	451
Arrive On Green	0.01	0.35	0.35	0.07	0.40	0.40	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1774	1532	248	1774	1440	333	0	290	1411	0	90	1396
Grp Volume(v), veh/h	9	0	467	79	0	394	79	0	73	136	0	20
Grp Sat Flow(s),veh/h/ln	1774	0	1780	1774	0	1773	290	0	1411	90	0	1396
Q Serve(g_s), s	0.2	0.0	11.5	2.2	0.0	8.5	0.0	0.0	1.8	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.2	0.0	11.5	2.2	0.0	8.5	16.0	0.0	1.8	16.0	0.0	0.5
Prop In Lane	1.00		0.14	1.00		0.19	0.44		1.00	0.72		1.00
Lane Grp Cap(c), veh/h	21	0	620	119	0	715	198	0	455	154	0	451
V/C Ratio(X)	0.43	0.00	0.75	0.67	0.00	0.55	0.40	0.00	0.16	0.88	0.00	0.04
Avail Cap(c_a), veh/h	394	0	1077	394	0	1073	198	0	455	154	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	14.3	22.6	0.0	11.3	13.7	0.0	12.0	21.4	0.0	11.5
Incr Delay (d2), s/veh	5.2	0.0	0.7	2.4	0.0	0.2	0.5	0.0	0.1	39.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	5.7	1.1	0.0	4.1	0.8	0.0	0.7	3.5	0.0	0.2	
LnGrp Delay(d),s/veh	29.5	0.0	15.0	25.0	0.0	11.6	14.2	0.0	12.0	60.9	0.0	11.5
LnGrp LOS	C		B	C		B	B		B	E		B
Approach Vol, veh/h		476			473			152			156	
Approach Delay, s/veh		15.3			13.8			13.2			54.5	
Approach LOS		B			B			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	22.3		20.0	4.6	25.0		20.0				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	30.0			16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+1), s	13.5			18.0	2.2	10.5		18.0				
Green Ext Time (p_c), s	0.0	3.8		0.0	0.0	4.0		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			19.3									
HCM 2010 LOS			B									

























Intersection									
Intersection Delay, s/veh	10.5								
Intersection LOS	B								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	167	201	0	105	11	0	13	120
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	178	214	0	112	12	0	14	128
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	11.8	8.6	8.6
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	45%	0%	10%
Vol Thru, %	55%	91%	0%
Vol Right, %	0%	9%	90%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	368	116	133
LT Vol	167	0	13
Through Vol	201	105	0
RT Vol	0	11	120
Lane Flow Rate	391	123	141
Geometry Grp	1	1	1
Degree of Util (X)	0.489	0.159	0.18
Departure Headway (Hd)	4.494	4.638	4.583
Convergence, Y/N	Yes	Yes	Yes
Cap	803	771	781
Service Time	2.525	2.677	2.62
HCM Lane V/C Ratio	0.487	0.16	0.181
HCM Control Delay	11.8	8.6	8.6
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2.7	0.6	0.7

HCM 2010 Signalized Intersection Summary
 94: La Rue Rd & Hutchison Dr

Existing Conditions
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 			 	
Volume (veh/h)	225	108	64	18	278	220	160	216	9	91	78	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.96	0.99		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	239	115	0	19	296	234	137	277	10	97	83	165
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	490	1694	0	747	892	727	452	1218	44	471	636	507
Arrive On Green	0.48	0.48	0.00	0.48	0.48	0.48	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	863	3632	0	1268	1863	1518	1120	3567	128	1083	1863	1485
Grp Volume(v), veh/h	239	115	0	19	296	234	137	144	143	97	83	165
Grp Sat Flow(s),veh/h/ln	863	1770	0	1268	1863	1518	1120	1863	1832	1083	1863	1485
Q Serve(g_s), s	10.6	0.8	0.0	0.4	4.4	4.2	4.6	2.5	2.5	3.1	1.4	3.7
Cycle Q Clear(g_c), s	14.9	0.8	0.0	1.1	4.4	4.2	8.3	2.5	2.5	5.6	1.4	3.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	490	1694	0	747	892	727	452	636	626	471	636	507
V/C Ratio(X)	0.49	0.07	0.00	0.03	0.33	0.32	0.30	0.23	0.23	0.21	0.13	0.33
Avail Cap(c_a), veh/h	581	2068	0	881	1088	887	724	1088	1070	734	1088	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	6.2	0.0	6.6	7.2	7.1	13.9	10.5	10.5	12.5	10.1	10.9
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.2	0.3	0.4	0.2	0.2	0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.6	0.4	0.0	0.1	2.3	1.8	1.5	1.3	1.3	0.9	0.7	1.5
LnGrp Delay(d),s/veh	12.6	6.3	0.0	6.6	7.4	7.4	14.3	10.6	10.6	12.7	10.2	11.2
LnGrp LOS	B	A		A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		354			549			424			345	
Approach Delay, s/veh		10.5			7.4			11.8			11.4	
Approach LOS		B			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		25.3		19.2		25.3				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		10.3		16.9		7.6		6.4				
Green Ext Time (p_c), s		3.9		3.5		4.1		5.1				
Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												

Intersection

Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	32	0	16	0	23	3	10	0	5	329	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	0	17	0	24	3	11	0	5	350	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.7	8.6	11.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	67%	64%	4%	0%
Vol Thru, %	97%	0%	8%	96%	0%
Vol Right, %	2%	33%	28%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	340	48	36	149	35
LT Vol	5	32	23	6	0
Through Vol	329	0	3	143	0
RT Vol	6	16	10	0	35
Lane Flow Rate	362	51	38	159	37
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.45	0.074	0.056	0.223	0.045
Departure Headway (Hd)	4.48	5.187	5.235	5.061	4.337
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	803	689	682	709	824
Service Time	2.508	3.233	3.284	2.794	2.069
HCM Lane V/C Ratio	0.451	0.074	0.056	0.224	0.045
HCM Control Delay	11.1	8.7	8.6	9.2	7.3
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2.4	0.2	0.2	0.9	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	6	142	35
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	6	151	37
Number of Lanes	0	0	1	1

Approach

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	30	541	61	29	444	26	57	3	23	48	4	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.93	1.00		0.65
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	32	576	65	31	472	28	61	3	24	51	4	74
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	63	793	90	61	902	735	98	20	159	88	210	115
Arrive On Green	0.04	0.49	0.49	0.03	0.48	0.48	0.06	0.12	0.12	0.05	0.11	0.11
Sat Flow, veh/h	1774	1635	185	1774	1863	1517	1774	168	1340	1774	1863	1021
Grp Volume(v), veh/h	32	0	641	31	472	28	61	0	27	51	4	74
Grp Sat Flow(s),veh/h/ln	1774	0	1820	1774	1863	1517	1774	0	1508	1774	1863	1021
Q Serve(g_s), s	1.0	0.0	15.2	0.9	9.5	0.5	1.8	0.0	0.9	1.5	0.1	3.8
Cycle Q Clear(g_c), s	1.0	0.0	15.2	0.9	9.5	0.5	1.8	0.0	0.9	1.5	0.1	3.8
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	63	0	883	61	902	735	98	0	179	88	210	115
V/C Ratio(X)	0.51	0.00	0.73	0.51	0.52	0.04	0.62	0.00	0.15	0.58	0.02	0.64
Avail Cap(c_a), veh/h	358	0	1002	261	1026	836	261	0	221	261	274	150
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.8	0.0	11.1	25.8	9.7	7.4	25.2	0.0	21.5	25.3	21.5	23.1
Incr Delay (d2), s/veh	6.3	0.0	3.2	6.4	1.0	0.0	6.3	0.0	0.8	6.0	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	8.3	0.6	5.1	0.2	1.1	0.0	0.4	0.9	0.1	1.2
LnGrp Delay(d),s/veh	32.2	0.0	14.4	32.3	10.7	7.4	31.4	0.0	22.3	31.3	21.5	28.9
LnGrp LOS	C		B	C	B	A	C		C	C	C	C
Approach Vol, veh/h		673			531			88			129	
Approach Delay, s/veh		15.2			11.8			28.7			29.7	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	31.4	7.0	10.1	5.9	31.4	6.7	10.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	30.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+1), s	17.2	17.2	3.8	5.8	3.0	11.5	3.5	2.9				
Green Ext Time (p_c), s	0.0	9.2	0.0	0.1	0.0	12.3	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			16.1									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	453	62	43	333	39	42	15	47	30	16	72
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.96	1.00		0.59
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	74	482	66	46	354	41	45	16	50	32	17	77
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	738	578	87	703	579	85	259	212	65	24	107
Arrive On Green	0.07	0.40	0.40	0.05	0.38	0.38	0.05	0.14	0.14	0.04	0.13	0.13
Sat Flow, veh/h	1774	1863	1457	1774	1863	1534	1774	1863	1526	1774	185	839
Grp Volume(v), veh/h	74	482	66	46	354	41	45	16	50	32	0	94
Grp Sat Flow(s),veh/h/ln	1774	1863	1457	1774	1863	1534	1774	1863	1526	1774	0	1025
Q Serve(g_s), s	1.8	9.2	1.2	1.1	6.4	0.7	1.1	0.3	1.3	0.8	0.0	3.8
Cycle Q Clear(g_c), s	1.8	9.2	1.2	1.1	6.4	0.7	1.1	0.3	1.3	0.8	0.0	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	120	738	578	87	703	579	85	259	212	65	0	131
V/C Ratio(X)	0.61	0.65	0.11	0.53	0.50	0.07	0.53	0.06	0.24	0.49	0.00	0.72
Avail Cap(c_a), veh/h	244	1304	1020	244	1304	1074	244	259	212	244	0	141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	10.7	8.3	20.2	10.4	8.7	20.3	16.3	16.7	20.6	0.0	18.3
Incr Delay (d2), s/veh	1.9	0.4	0.0	1.9	0.2	0.0	1.9	0.0	0.2	2.1	0.0	12.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	4.8	0.5	0.6	3.3	0.3	0.6	0.2	0.5	0.4	0.0	1.5	
LnGrp Delay(d),s/veh	21.6	11.1	8.3	22.1	10.6	8.7	22.1	16.3	16.9	22.7	0.0	30.5
LnGrp LOS	C	B	A	C	B	A	C	B	B	C		C
Approach Vol, veh/h		622			441			111			126	
Approach Delay, s/veh		12.0			11.6			18.9			28.5	
Approach LOS		B			B			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	21.8	6.1	9.6	7.0	21.0	5.6	10.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	30.5	30.5	6.0	6.0	6.0	30.5	6.0	6.0				
Max Q Clear Time (g_c+1), s	11.2	11.2	3.1	5.8	3.8	8.4	2.8	3.3				
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.0	4.0	0.0	0.2				

Intersection Summary

























HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	183	198	157	154	182	6	170	141	189	3	100	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	195	211	0	164	194	0	181	150	0	3	106	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	253	381	324	214	645	289	231	484	411	7	249	212
Arrive On Green	0.14	0.20	0.00	0.12	0.18	0.00	0.13	0.26	0.00	0.00	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	195	211	0	164	194	0	181	150	0	3	106	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.1	4.0	0.0	3.5	1.8	0.0	3.8	2.5	0.0	0.1	2.0	0.0
Cycle Q Clear(g_c), s	4.1	4.0	0.0	3.5	1.8	0.0	3.8	2.5	0.0	0.1	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	253	381	324	214	645	289	231	484	411	7	249	212
V/C Ratio(X)	0.77	0.55	0.00	0.77	0.30	0.00	0.78	0.31	0.00	0.41	0.43	0.00
Avail Cap(c_a), veh/h	730	766	651	730	1092	488	365	670	570	502	670	570
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.1	13.9	0.0	16.6	13.8	0.0	16.4	11.6	0.0	19.3	15.5	0.0
Incr Delay (d2), s/veh	1.9	0.5	0.0	2.2	0.1	0.0	2.2	0.1	0.0	13.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.1	2.0	0.0	1.8	0.9	0.0	2.0	1.3	0.0	0.1	1.1	0.0
LnGrp Delay(d),s/veh	17.9	14.4	0.0	18.8	13.9	0.0	18.6	11.7	0.0	32.6	15.9	0.0
LnGrp LOS	B	B		B	B		B	B		C	B	
Approach Vol, veh/h		406			358			331			109	
Approach Delay, s/veh		16.1			16.1			15.5			16.4	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.2	14.1	8.7	12.0	9.1	9.2	9.5	11.1				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.1	4.5	5.5	6.0	5.8	4.0	6.1	3.8				
Green Ext Time (p_c), s	0.0	0.7	0.2	1.3	0.1	0.7	0.2	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			15.9									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Int Delay, s/veh	4.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	138	3	55	3	0	2	20	277	2	4	202	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	147	3	59	3	0	2	21	295	2	4	215	62

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	593	593	247	623	623	296	277	0	0	297	0	0
Stage 1	254	254	-	338	338	-	-	-	-	-	-	-
Stage 2	339	339	-	285	285	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	418	792	398	402	743	1286	-	-	1264	-	-
Stage 1	750	697	-	676	641	-	-	-	-	-	-	-
Stage 2	676	640	-	722	676	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	410	410	791	361	394	743	1285	-	-	1264	-	-
Mov Cap-2 Maneuver	410	410	-	361	394	-	-	-	-	-	-	-
Stage 1	738	695	-	665	631	-	-	-	-	-	-	-
Stage 2	663	630	-	663	674	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.1	13	0.5	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1285	-	-	410	755	454	1264	-	-
HCM Lane V/C Ratio	0.017	-	-	0.358	0.082	0.012	0.003	-	-
HCM Control Delay (s)	7.8	-	-	18.6	10.2	13	7.9	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.3	0	0	-	-

Intersection																
Intersection Delay, s/veh11.6																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	208	158	42	0	52	110	7	0	32	48	33	0	9	81	116
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	221	168	45	0	55	117	7	0	34	51	35	0	10	86	123
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.3	10.5	10.3	11.9
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	59%	0%	79%	0%	94%	0%	41%
Vol Right, %	0%	41%	0%	21%	0%	6%	0%	59%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	81	208	200	52	117	9	197
LT Vol	32	0	208	0	52	0	9	0
Through Vol	0	48	0	158	0	110	0	81
RT Vol	0	33	0	42	0	7	0	116
Lane Flow Rate	34	86	221	213	55	124	10	210
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.067	0.151	0.391	0.338	0.103	0.214	0.018	0.35
Departure Headway (Hd)	7.117	6.318	6.365	5.711	6.727	6.177	6.945	6.02
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	566	566	630	532	580	515	597
Service Time	4.871	4.072	4.101	3.447	4.472	3.922	4.693	3.767
HCM Lane V/C Ratio	0.068	0.152	0.39	0.338	0.103	0.214	0.019	0.352
HCM Control Delay	10.4	10.2	13.2	11.4	10.2	10.6	9.8	12
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.2	0.5	1.8	1.5	0.3	0.8	0.1	1.6

Intersection

Intersection Delay, s/veh 9.6
Intersection LOS A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	175	146	0	38	158	0	137	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	186	155	0	40	168	0	146	31
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach

	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.2	9.7	10.1
HCM LOS	A	A	B

Lane

	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	83%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	17%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	175	146	38	158
LT Vol	137	0	0	38	0
Through Vol	0	175	0	0	158
RT Vol	29	0	146	0	0
Lane Flow Rate	177	186	155	40	168
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.256	0.27	0.195	0.066	0.249
Departure Headway (Hd)	5.218	5.221	4.516	5.834	5.33
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	685	685	791	611	671
Service Time	3.275	2.975	2.269	3.595	3.091
HCM Lane V/C Ratio	0.258	0.272	0.196	0.065	0.25
HCM Control Delay	10.1	9.9	8.4	9	9.9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1	1.1	0.7	0.2	1

Intersection

Intersection Delay, s/veh 8.1
Intersection LOS A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	1	72	49	11	0	1	34	9	0	6	6	1	1	13	6	82
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	77	52	12	0	1	36	10	0	6	6	1	1	14	6	87
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	8.4	7.8	8.1	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	82%	0%	79%	0%	7%
Vol Right, %	0%	14%	0%	18%	0%	21%	0%	93%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	7	73	60	1	43	14	88
LT Vol	6	0	73	0	1	0	14	0
Through Vol	0	6	0	49	0	34	0	6
RT Vol	0	1	0	11	0	9	0	82
Lane Flow Rate	6	7	78	64	1	46	15	94
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.01	0.01	0.114	0.082	0.002	0.061	0.023	0.114
Departure Headway (Hd)	5.607	5.004	5.373	4.744	5.451	4.802	5.527	4.371
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	641	718	671	760	659	748	651	824
Service Time	3.315	2.713	3.073	2.444	3.163	2.514	3.231	2.075
HCM Lane V/C Ratio	0.009	0.01	0.116	0.084	0.002	0.061	0.023	0.114
HCM Control Delay	8.4	7.8	8.8	7.9	8.2	7.8	8.4	7.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.4	0.3	0	0.2	0.1	0.4

Intersection

Int Delay, s/veh 2.2

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	3	137	52	2	27	286	81	71
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	Yield
Storage Length	-	-	0	-	75	-	0	-
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	3	146	55	2	29	304	86	76

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	304	0 0	221 146 0
Stage 1	-	- -	- - - 146 -
Stage 2	-	- -	- - - 362 -
Critical Hdwy	-	- -	- 4.12 - 6.42 6.22
Critical Hdwy Stg 1	-	- -	- - - 5.42 -
Critical Hdwy Stg 2	-	- -	- - - 5.42 -
Follow-up Hdwy	-	- -	- 2.218 - 3.518 3.318
Pot Cap-1 Maneuver	-	- -	- 1436 - 525 899
Stage 1	-	- -	- - - 881 -
Stage 2	-	- -	- - - 704 -
Platoon blocked, %	-	- -	- - -
Mov Cap-1 Maneuver	-	- -	- ~ -15 ~ -15 - 525 899
Mov Cap-2 Maneuver	-	- -	- - - 525 -
Stage 1	-	- -	- - - 881 -
Stage 2	-	- -	- - - 704 -

Approach	EB	WB	NB
HCM Control Delay, s			9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	985	-	-	+	-
HCM Lane V/C Ratio	0.164	-	-	-	-
HCM Control Delay (s)	9.4	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	207	304	33	37	7
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	220	323	35	39	7

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	359	0	572
Stage 1	-	-	341
Stage 2	-	-	231
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1200	-	482
Stage 1	-	-	720
Stage 2	-	-	807
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1200	-	480
Mov Cap-2 Maneuver	-	-	480
Stage 1	-	-	720
Stage 2	-	-	804

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1200	-	-	-	480	701
HCM Lane V/C Ratio	0.004	-	-	-	0.082	0.011
HCM Control Delay (s)	8	-	-	-	13.2	10.2
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	24	265	196	24	82	69
Conflicting Peds, #/hr	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	282	209	26	87	73

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	236	0	556
Stage 1	-	-	223
Stage 2	-	-	333
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1331	-	492
Stage 1	-	-	814
Stage 2	-	-	726
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1331	-	479
Mov Cap-2 Maneuver	-	-	479
Stage 1	-	-	813
Stage 2	-	-	708

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1331	-	-	-	590
HCM Lane V/C Ratio	0.019	-	-	-	0.272
HCM Control Delay (s)	7.8	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection

Intersection Delay, s/veh10.1
 Intersection LOS B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	19	2	357	0	2	4	0	0	181	14	2	0	0	19	11
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	2	380	0	2	4	0	0	193	15	2	0	0	20	12
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	8.1	10.1	8.1
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	92%	5%	33%	0%
Vol Thru, %	7%	1%	67%	63%
Vol Right, %	1%	94%	0%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	197	378	6	30
LT Vol	181	19	2	0
Through Vol	14	2	4	19
RT Vol	2	357	0	11
Lane Flow Rate	210	402	6	32
Geometry Grp	1	1	1	1
Degree of Util (X)	0.291	0.448	0.009	0.043
Departure Headway (Hd)	5	4.007	5.044	4.845
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	717	901	707	734
Service Time	3.051	2.029	3.091	2.906
HCM Lane V/C Ratio	0.293	0.446	0.008	0.044
HCM Control Delay	10.1	10.3	8.1	8.1
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1.2	2.3	0	0.1

Intersection																
Intersection Delay, s/veh11.3																
Intersection LOS B																
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	60	1	23	0	0	0	0	0	0	70	36	1	300	30	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	1	24	0	0	0	0	0	0	74	38	1	319	32	0
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0	0	1	2	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	3	2	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.4	9.2	12.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	66%	0%	4%	0%	100%	100%
Vol Right, %	34%	0%	96%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	60	24	301	15	15
LT Vol	0	60	0	301	0	0
Through Vol	70	0	1	0	15	15
RT Vol	36	0	23	0	0	0
Lane Flow Rate	113	64	26	320	16	16
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.167	0.113	0.037	0.48	0.022	0.022
Departure Headway (Hd)	5.339	6.352	5.176	5.398	4.896	4.896
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	670	563	689	666	731	731
Service Time	3.089	4.104	2.928	3.132	2.63	2.63
HCM Lane V/C Ratio	0.169	0.114	0.038	0.48	0.022	0.022
HCM Control Delay	9.2	9.9	8.1	13	7.7	7.7
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	2.6	0.1	0.1

Intersection																
Intersection Delay, s/veh	8.4															
Intersection LOS	A															
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0	0	6	3	106	0	61	70	0	0	0	325	330
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	6	3	113	0	65	74	0	0	0	346	351
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0	0	0	2	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	3	3
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	3	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	3	2	0
HCM Control Delay	9.4	9	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	80%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	20%	1%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	35	35	8	108	163	163	330
LT Vol	61	0	0	6	0	0	0	0
Through Vol	0	35	35	2	2	163	163	0
RT Vol	0	0	0	0	106	0	0	330
Lane Flow Rate	65	37	37	8	114	173	173	351
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.115	0.061	0.043	0.014	0.172	0.251	0.251	0.271
Departure Headway (Hd)	6.388	5.885	4.14	6.509	5.422	5.225	5.225	2.779
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	557	604	854	546	655	686	686	1285
Service Time	4.169	3.666	1.92	4.298	3.211	2.96	2.96	0.513
HCM Lane V/C Ratio	0.117	0.061	0.043	0.015	0.174	0.252	0.252	0.273
HCM Control Delay	10	9.1	7.1	9.4	9.4	9.7	9.7	6.6
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.1	0	0.6	1	1	1.1

Intersection			
Intersection Delay, s/veh	11.4		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	187	566	422
Demand Flow Rate, veh/h	191	577	430
Vehicles Circulating, veh/h	154	85	433
Vehicles Exiting, veh/h	709	260	229
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.7	10.7	14.8
Approach LOS	A	B	B
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	191	577	430
Cap Entry Lane, veh/h	969	1038	733
Entry HV Adj Factor	0.979	0.980	0.981
Flow Entry, veh/h	187	566	422
Cap Entry, veh/h	948	1017	719
V/C Ratio	0.197	0.556	0.587
Control Delay, s/veh	5.7	10.7	14.8
LOS	A	B	B
95th %tile Queue, veh	1	4	4

Intersection

Int Delay, s/veh 7.2

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	1	216	23	1	2	290	242	36
Conflicting Peds, #/hr	0	0	18	0	0	0	0	28
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	-	-	-	0	-	75	0
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	230	24	1	2	309	257	38

Major/Minor

	Major1	Major2					Minor1	
Conflicting Flow All	309	0	0	293	282	0	583	271
Stage 1	-	-	-	-	-	-	270	-
Stage 2	-	-	-	-	-	-	313	-
Critical Hdwy	-	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	-	1280	-	475	768
Stage 1	-	-	-	-	-	-	775	-
Stage 2	-	-	-	-	-	-	741	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-3	-3	-	457	750
Mov Cap-2 Maneuver	-	-	-	-	-	-	457	-
Stage 1	-	-	-	-	-	-	757	-
Stage 2	-	-	-	-	-	-	730	-

Approach

	EB	WB	NB
HCM Control Delay, s			21
HCM LOS			C

Minor Lane/Major Mvmt

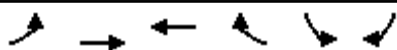
	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	457	750	-	-	+	-
HCM Lane V/C Ratio	0.563	0.051	-	-	-	-
HCM Control Delay (s)	22.6	10.1	-	-	-	-
HCM Lane LOS	C	B	-	-	-	-
HCM 95th %tile Q(veh)	3.4	0.2	-	-	-	-

Notes

-: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
85: Old Davis Rd & Market Hall Dr

Existing Conditions
PM Peak Hour



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		↔	↔		↔			
Volume (veh/h)	55	198	187	24	28	106		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	0.98			0.94	1.00	0.86		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900		
Adj Flow Rate, veh/h	59	211	199	26	30	113		
Adj No. of Lanes	0	1	1	0	0	0		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	2	0	0		
Cap, veh/h	178	390	439	57	153	578		
Arrive On Green	0.27	0.27	0.27	0.27	0.51	0.51		
Sat Flow, veh/h	223	1422	1602	209	299	1127		
Grp Volume(v), veh/h	270	0	0	225	144	0		
Grp Sat Flow(s),veh/h/ln	1645	0	0	1811	1436	0		
Q Serve(g_s), s	1.4	0.0	0.0	3.9	2.0	0.0		
Cycle Q Clear(g_c), s	5.3	0.0	0.0	3.9	2.0	0.0		
Prop In Lane	0.22			0.12	0.21	0.78		
Lane Grp Cap(c), veh/h	568	0	0	497	736	0		
V/C Ratio(X)	0.48	0.00	0.00	0.45	0.20	0.00		
Avail Cap(c_a), veh/h	1249	0	0	771	994	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	11.7	0.0	0.0	11.3	5.0	0.0		
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.6	0.1	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	2.0	0.8	0.0		
LnGrp Delay(d),s/veh	12.3	0.0	0.0	11.9	5.1	0.0		
LnGrp LOS	B			B	A			
Approach Vol, veh/h		270	225		144			
Approach Delay, s/veh		12.3	11.9		5.1			
Approach LOS		B	B		A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				14.3		23.3		14.3
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				7.3		4.0		5.9
Green Ext Time (p_c), s				3.1		0.5		2.3
Intersection Summary								
HCM 2010 Ctrl Delay			10.5					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

Intersection

Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	2	15	201	8	1	8	172	14	0	37	8	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	16	214	9	1	9	183	15	0	39	9	54
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.7	9.4	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	39%	100%	0%	100%	0%
Vol Thru, %	8%	0%	96%	0%	92%
Vol Right, %	53%	0%	4%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	17	209	9	186
LT Vol	37	17	0	9	0
Through Vol	8	0	201	0	172
RT Vol	51	0	8	0	14
Lane Flow Rate	102	18	222	10	198
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.135	0.027	0.304	0.015	0.271
Departure Headway (Hd)	4.76	5.459	4.93	5.489	4.934
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	754	656	729	653	728
Service Time	2.788	3.187	2.657	3.217	2.661
HCM Lane V/C Ratio	0.135	0.027	0.305	0.015	0.272
HCM Control Delay	8.5	8.3	9.8	8.3	9.5
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.1	1.3	0	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach
 Opposing Lanes
 Conflicting Approach Left
 Conflicting Lanes Left
 Conflicting Approach Right
 Conflicting Lanes Right
 HCM Control Delay
 HCM LOS

Lane

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	9	244	2	184	7	8	11
Conflicting Peds, #/hr	0	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	10	260	2	196	7	9	12

Major/Minor

	Major1	Major2	Minor2
Conflicting Flow All	203	0	260
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1369	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1369	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach













	EB	WB	SB
HCM Control Delay, s	0.3		10.4
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1369	-	-	-	683
HCM Lane V/C Ratio	0.007	-	-	-	0.03
HCM Control Delay (s)	7.6	-	-	-	10.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1




















**A.8 – SYNCHRO CALCULATION SHEETS – EXISTING PLUS PROJECT
ACCESS SCENARIO 1**



								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	140	81	69	88	66	238		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.96		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	146	84	72	92	69	248		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	295	263	136	892	521	426		
Arrive On Green	0.17	0.17	0.08	0.50	0.28	0.28		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1524		
Grp Volume(v), veh/h	146	84	72	92	69	248		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1524		
Q Serve(g_s), s	2.1	1.3	1.1	0.8	0.8	4.0		
Cycle Q Clear(g_c), s	2.1	1.3	1.1	0.8	0.8	4.0		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	295	263	136	892	521	426		
V/C Ratio(X)	0.50	0.32	0.53	0.10	0.13	0.58		
Avail Cap(c_a), veh/h	1256	1121	1004	1935	1351	1105		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	10.7	10.4	12.6	3.8	7.6	8.8		
Incr Delay (d2), s/veh	1.3	0.7	3.2	0.1	0.1	1.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.1	0.6	0.7	0.4	0.4	1.8		
LnGrp Delay(d),s/veh	12.0	11.1	15.8	3.8	7.7	10.0		
LnGrp LOS	B	B	B	A	A	B		
Approach Vol, veh/h	230			164	317			
Approach Delay, s/veh	11.7			9.1	9.5			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.7	6.2	12.4				18.6
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.1	3.1	6.0				2.8
Green Ext Time (p_c), s		0.6	0.1	1.6				1.9
Intersection Summary								
HCM 2010 Ctrl Delay			10.1					
HCM 2010 LOS			B					





















HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Volume (veh/h)	6	189	0	49	205	34	43	92	16	24	160	21	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	0.99		0.61	0.99		0.92	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1839	1900	1900	1857	1900	
Adj Flow Rate, veh/h	6	197	0	51	214	35	45	96	17	25	167	22	
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2	
Cap, veh/h	95	1096	941	895	920	150	172	242	37	119	315	39	
Arrive On Green	0.59	0.59	0.00	0.59	0.59	0.59	0.22	0.22	0.22	0.22	0.22	0.22	
Sat Flow, veh/h	11	1845	1583	1169	1549	253	288	1124	170	110	1465	180	
Grp Volume(v), veh/h	203	0	0	51	0	249	158	0	0	214	0	0	
Grp Sat Flow(s),veh/h/ln	1856	0	1583	1169	0	1802	1583	0	0	1755	0	0	
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.4	0.0	0.0	
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.5	0.0	2.7	3.4	0.0	0.0	4.5	0.0	0.0	
Prop In Lane	0.03		1.00	1.00		0.14	0.28		0.11	0.12		0.10	
Lane Grp Cap(c), veh/h	1191	0	941	895	0	1071	451	0	0	473	0	0	
V/C Ratio(X)	0.17	0.00	0.00	0.06	0.00	0.23	0.35	0.00	0.00	0.45	0.00	0.00	
Avail Cap(c_a), veh/h	1237	0	981	925	0	1117	866	0	0	962	0	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	
Uniform Delay (d), s/veh	3.9	0.0	0.0	3.6	0.0	4.0	14.3	0.0	0.0	14.7	0.0	0.0	
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.7	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(-26165%),veh/ln	1.1	0.0	0.0	0.2	0.0	1.3	1.6	0.0	0.0	2.3	0.0	0.0	
LnGrp Delay(d),s/veh	3.9	0.0	0.0	3.6	0.0	4.1	14.7	0.0	0.0	15.3	0.0	0.0	
LnGrp LOS	A			A		A	B			B			
Approach Vol, veh/h		203			300			158			214		
Approach Delay, s/veh		3.9			4.0			14.7			15.3		
Approach LOS		A			A			B			B		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs		2		4		6		8					
Phs Duration (G+Y+Rc), s		13.0		28.9		13.0		28.9					
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0					
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0					
Max Q Clear Time (g_c+I1), s		5.4		4.1		6.5		4.7					
Green Ext Time (p_c), s		2.1		3.1		2.0		3.0					
Intersection Summary													
HCM 2010 Ctrl Delay			8.7										
HCM 2010 LOS			A										



















HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	154	96	13	236	19	24	103	21	96	194	31
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.93	1.00		0.54	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1850	1900	1900	1853	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	19	160	100	14	246	20	25	107	22	100	202	32
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	135	341	200	128	542	43	50	366	167	162	497	387
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.03	0.21	0.21	0.09	0.27	0.27
Sat Flow, veh/h	48	1028	601	35	1633	128	1601	1776	813	1774	1863	1450
Grp Volume(v), veh/h	279	0	0	280	0	0	25	107	22	100	202	32
Grp Sat Flow(s),veh/h/ln	1678	0	0	1796	0	0	1601	1776	813	1774	1863	1450
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.7	0.7	1.8	2.9	0.5
Cycle Q Clear(g_c), s	4.2	0.0	0.0	3.9	0.0	0.0	0.5	1.7	0.7	1.8	2.9	0.5
Prop In Lane	0.07		0.36	0.05		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	676	0	0	713	0	0	50	366	167	162	497	387
V/C Ratio(X)	0.41	0.00	0.00	0.39	0.00	0.00	0.50	0.29	0.13	0.62	0.41	0.08
Avail Cap(c_a), veh/h	1445	0	0	1540	0	0	790	1698	777	876	1781	1387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	8.5	0.0	0.0	15.5	10.9	10.5	14.2	9.8	8.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	7.6	0.4	0.4	3.8	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.0	0.0	0.0	2.0	0.0	0.0	0.3	0.8	0.2	1.0	1.5	0.2
LnGrp Delay(d),s/veh	9.0	0.0	0.0	8.9	0.0	0.0	23.1	11.3	10.9	17.9	10.3	9.0
LnGrp LOS	A			A			C	B	B	B	B	A
Approach Vol, veh/h		279			280			154			334	
Approach Delay, s/veh		9.0			8.9			13.2			12.5	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	10.7		14.8	5.0	12.6		14.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	16.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+I1), s	3.8	3.7		6.2	2.5	4.9		5.9				
Green Ext Time (p_c), s	0.2	2.2		3.6	0.0	2.2		3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			10.7									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
49: Russell Blvd & Sycamore Ln



























Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	584	0	0	305	39	0	0	0	85	0	187
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.59	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	198	608	0	0	318	41	0	0	0	89	0	195
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	185	1757	0	0	840	103	0	5	0	340	0	0
Arrive On Green	0.10	0.50	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.19	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	3007	358	0	-111765	0	1774	89	
Grp Volume(v), veh/h	198	608	0	0	187	172	0	0	0	89	13.5	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1502	0	1863	0	1774	B	
Q Serve(g_s), s	4.0	4.0	0.0	0.0	3.2	3.5	0.0	0.0	0.0	1.6		
Cycle Q Clear(g_c), s	4.0	4.0	0.0	0.0	3.2	3.5	0.0	0.0	0.0	1.6		
Prop In Lane	1.00		0.00	0.00		0.24	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	185	1757	0	0	510	433	0	5	0	340		
V/C Ratio(X)	1.07	0.35	0.00	0.00	0.37	0.40	0.00	0.00	0.00	0.26		
Avail Cap(c_a), veh/h	185	1757	0	0	1386	1177	0	921	0	877		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.2	5.9	0.0	0.0	10.9	11.0	0.0	0.0	0.0	13.2		
Incr Delay (d2), s/veh	86.8	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	6.3	2.0	0.0	0.0	1.6	1.5	0.0	0.0	0.0	0.8		
LnGrp Delay(d),s/veh	104.0	6.0	0.0	0.0	11.1	11.2	0.0	0.0	0.0	13.5		
LnGrp LOS	F	A			B	B				B		
Approach Vol, veh/h		806			359			0				
Approach Delay, s/veh		30.1			11.1			0.0				
Approach LOS		C			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		25.1			8.0	17.1	13.4	0.0				
Change Period (Y+Rc), s		6.0			4.0	*6	6.0	6.0				
Max Green Setting (Gmax), s		19.0			4.0	*30	19.0	19.0				
Max Q Clear Time (g_c+I1), s		6.0			6.0	5.5	3.6	0.0				
Green Ext Time (p_c), s		4.0			0.0	4.8	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				23.5								
HCM 2010 LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	88	515	66	271	233	54	45	56	83	88	284	82
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	92	536	0	282	243	56	47	58	0	92	296	85
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	1066	0	283	1125	471	69	638	0	116	557	156
Arrive On Green	0.07	0.30	0.00	0.08	0.32	0.32	0.04	0.18	0.00	0.07	0.21	0.21
Sat Flow, veh/h	1774	3632	0	3442	3539	1483	1774	3632	0	1774	2689	753
Grp Volume(v), veh/h	92	536	0	282	243	56	47	58	0	92	192	189
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1483	1774	1770	0	1774	1770	1672
Q Serve(g_s), s	2.5	6.1	0.0	4.0	2.4	1.3	1.3	0.7	0.0	2.5	4.7	4.9
Cycle Q Clear(g_c), s	2.5	6.1	0.0	4.0	2.4	1.3	1.3	0.7	0.0	2.5	4.7	4.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.45
Lane Grp Cap(c), veh/h	116	1066	0	283	1125	471	69	638	0	116	367	347
V/C Ratio(X)	0.79	0.50	0.00	0.99	0.22	0.12	0.69	0.09	0.00	0.79	0.52	0.54
Avail Cap(c_a), veh/h	146	2186	0	283	2186	916	146	1093	0	146	546	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	14.0	0.0	22.3	12.1	11.7	23.1	16.6	0.0	22.4	17.1	17.2
Incr Delay (d2), s/veh	20.2	0.1	0.0	52.0	0.0	0.0	11.4	0.0	0.0	20.2	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.9	2.9	0.0	3.9	1.2	0.5	0.8	0.3	0.0	1.9	2.3	2.3
LnGrp Delay(d),s/veh	42.5	14.1	0.0	74.3	12.2	11.8	34.5	16.6	0.0	42.5	17.6	17.7
LnGrp LOS	D	B		E	B	B	C	B		D	B	B
Approach Vol, veh/h		628			581			105			473	
Approach Delay, s/veh		18.3			42.3			24.6			22.5	
Approach LOS		B			D			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	19.6	5.9	15.1	7.2	20.4	7.2	13.8				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	4.0	30.0	4.0	15.0	4.0	30.0	4.0	15.0				
Max Q Clear Time (g_c+I1), s	6.0	8.1	3.3	6.9	4.5	4.4	4.5	2.7				
Green Ext Time (p_c), s	0.0	3.7	0.0	1.2	0.0	3.8	0.0	1.4				
Intersection Summary												
HCM 2010 Ctrl Delay				27.6								
HCM 2010 LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	586	115	70	503	0	20
Conflicting Peds, #/hr	0	17	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	610	120	73	524	0	21






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	730
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.22
Pot Cap-1 Maneuver	-	-	870
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	870
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	632	-	-	870	-
HCM Lane V/C Ratio	0.033	-	-	0.084	-
HCM Control Delay (s)	10.9	-	-	9.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-




















HCM 2010 Signalized Intersection Summary
46: Howard Way/College Park & Russell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	442	141	178	504	12	47	0	29	9	1	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.92	1.00		0.93	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	18	460	147	185	525	12	49	0	30	9	1	14
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	738	234	123	1171	27	474	0	392	65	69	50
Arrive On Green	0.02	0.28	0.28	0.07	0.33	0.33	0.27	0.00	0.27	0.04	0.04	0.04
Sat Flow, veh/h	1774	2638	836	1774	3529	81	1774	0	1467	1774	1863	1363
Grp Volume(v), veh/h	18	307	300	185	263	274	49	0	30	9	1	14
Grp Sat Flow(s),veh/h/ln	1774	1770	1705	1774	1770	1840	1774	0	1467	1774	1863	1363
Q Serve(g_s), s	0.6	8.7	8.9	4.0	6.7	6.7	1.2	0.0	0.9	0.3	0.0	0.6
Cycle Q Clear(g_c), s	0.6	8.7	8.9	4.0	6.7	6.7	1.2	0.0	0.9	0.3	0.0	0.6
Prop In Lane	1.00		0.49	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	31	495	477	123	587	610	474	0	392	65	69	50
V/C Ratio(X)	0.58	0.62	0.63	1.50	0.45	0.45	0.10	0.00	0.08	0.14	0.01	0.28
Avail Cap(c_a), veh/h	123	921	887	123	921	957	923	0	763	893	937	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	18.1	18.1	26.8	15.1	15.1	15.9	0.0	15.8	26.9	26.7	27.0
Incr Delay (d2), s/veh	16.3	0.5	0.5	263.7	0.2	0.2	0.0	0.0	0.0	0.4	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	4.3	4.2	10.9	3.3	3.5	0.6	0.0	0.4	0.1	0.0	0.2
LnGrp Delay(d),s/veh	44.4	18.6	18.7	290.6	15.3	15.3	16.0	0.0	15.8	27.2	26.8	28.1
LnGrp LOS	D	B	B	F	B	B	B		B	C	C	C
Approach Vol, veh/h		625			722			79			24	
Approach Delay, s/veh		19.4			85.8			15.9			27.7	
Approach LOS		B			F			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	21.1		8.1	5.0	24.1		20.4				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	4.0	30.0		29.0	4.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.0	10.9		2.6	2.6	8.7		3.2				
Green Ext Time (p_c), s	0.0	4.7		0.0	0.0	4.8		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			52.4									
HCM 2010 LOS			D									

























HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	27	481	0	0	619	15	73	21	12	85	0	26
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.87	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	28	501	0	0	645	16	76	22	12	89	0	27
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	528	1787	0	0	1774	44	380	238	130	0	0	0
Arrive On Green	0.50	0.50	0.00	0.00	0.50	0.50	0.21	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	769	3632	0	0	3607	87	1774	1112	607		0	
Grp Volume(v), veh/h	28	501	0	0	325	336	76	0	34		0.0	
Grp Sat Flow(s),veh/h/ln	769	1770	0	0	1770	1831	1774	0	1719			
Q Serve(g_s), s	0.7	2.6	0.0	0.0	3.6	3.6	1.1	0.0	0.5			
Cycle Q Clear(g_c), s	4.3	2.6	0.0	0.0	3.6	3.6	1.1	0.0	0.5			
Prop In Lane	1.00		0.00	0.00		0.05	1.00		0.35			
Lane Grp Cap(c), veh/h	528	1787	0	0	894	925	380	0	368			
V/C Ratio(X)	0.05	0.28	0.00	0.00	0.36	0.36	0.20	0.00	0.09			
Avail Cap(c_a), veh/h	1245	5085	0	0	2543	2631	1108	0	1074			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.1	4.6	0.0	0.0	4.8	4.8	10.3	0.0	10.1			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.2	0.2	0.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	0.2	1.3	0.0	0.0	1.8	1.8	0.6	0.0	0.2			
LnGrp Delay(d),s/veh	6.2	4.7	0.0	0.0	5.1	5.0	10.4	0.0	10.1			
LnGrp LOS	A	A			A	A	B		B			
Approach Vol, veh/h		529			661			110				
Approach Delay, s/veh		4.7			5.0			10.3				
Approach LOS		A			A			B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		20.2				20.2		11.9				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		6.3				5.6		3.1				
Green Ext Time (p_c), s		9.8				9.8		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			5.4									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												






















HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Volume (veh/h)	9	242	298	48	290	54	308	119	37	47	76	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.88	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	9	252	0	50	302	0	321	124	39	49	79	21
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	1101	0	106	1263	0	390	543	407	105	183	49
Arrive On Green	0.01	0.31	0.00	0.06	0.36	0.00	0.22	0.29	0.29	0.06	0.13	0.13
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1396	1774	1402	373
Grp Volume(v), veh/h	9	252	0	50	302	0	321	124	39	49	0	100
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1396	1774	0	1774
Q Serve(g_s), s	0.3	2.7	0.0	1.4	3.0	0.0	8.7	2.5	1.0	1.3	0.0	2.6
Cycle Q Clear(g_c), s	0.3	2.7	0.0	1.4	3.0	0.0	8.7	2.5	1.0	1.3	0.0	2.6
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	25	1101	0	106	1263	0	390	543	407	105	0	232
V/C Ratio(X)	0.36	0.23	0.00	0.47	0.24	0.00	0.82	0.23	0.10	0.47	0.00	0.43
Avail Cap(c_a), veh/h	406	2568	0	406	2568	0	582	611	458	582	0	582
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.6	12.9	0.0	22.9	11.4	0.0	18.7	13.5	13.0	22.9	0.0	20.1
Incr Delay (d2), s/veh	3.2	0.0	0.0	1.2	0.0	0.0	5.9	0.1	0.0	1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	1.3	0.0	0.7	1.5	0.0	4.8	1.3	0.4	0.7	0.0	1.3
LnGrp Delay(d),s/veh	27.8	12.9	0.0	24.1	11.4	0.0	24.6	13.6	13.0	24.1	0.0	20.6
LnGrp LOS	C	B		C	B		C	B	B	C		C
Approach Vol, veh/h		261			352			484			149	
Approach Delay, s/veh		13.4			13.2			20.9			21.8	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	19.1	14.6	10.1	4.2	21.5	6.5	18.2				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	11.5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+I1), s	3.4	4.7	10.7	4.6	2.3	5.0	3.3	4.5				
Green Ext Time (p_c), s	0.0	2.6	0.5	0.7	0.0	2.6	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												





















HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	224	33	170	451	34	0	88	1	8	211	42
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.68	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1786	1900	1863	1846	1900	1776	1809	1900	1863	1863	1900
Adj Flow Rate, veh/h	18	233	34	177	470	35	0	92	1	8	220	44
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	102	939	137	118	1047	78	2	225	2	18	269	54
Arrive On Green	0.07	0.62	0.62	0.13	1.00	1.00	0.00	0.13	0.13	0.01	0.18	0.18
Sat Flow, veh/h	1533	1518	222	1774	1692	126	1691	1775	19	1774	1482	296
Grp Volume(v), veh/h	18	0	267	177	0	505	0	0	93	8	0	264
Grp Sat Flow(s),veh/h/ln	1533	0	1740	1774	0	1818	1691	0	1795	1774	0	1778
Q Serve(g_s), s	1.0	0.0	6.2	6.0	0.0	0.0	0.0	0.0	4.3	0.4	0.0	12.8
Cycle Q Clear(g_c), s	1.0	0.0	6.2	6.0	0.0	0.0	0.0	0.0	4.3	0.4	0.0	12.8
Prop In Lane	1.00		0.13	1.00		0.07	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	102	0	1076	118	0	1125	2	0	228	18	0	322
V/C Ratio(X)	0.18	0.00	0.25	1.50	0.00	0.45	0.00	0.00	0.41	0.45	0.00	0.82
Avail Cap(c_a), veh/h	102	0	1076	118	0	1125	103	0	399	99	0	395
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89	0.62	0.00	0.62	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	7.7	39.0	0.0	0.0	0.0	0.0	36.2	44.3	0.0	35.4
Incr Delay (d2), s/veh	0.3	0.0	0.5	249.0	0.0	0.8	0.0	0.0	0.4	6.4	0.0	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	0.0	3.1	11.1	0.0	0.3	0.0	0.0	2.1	0.2	0.0	7.1
LnGrp Delay(d),s/veh	39.9	0.0	8.2	288.0	0.0	0.8	0.0	0.0	36.6	50.7	0.0	44.3
LnGrp LOS	D		A	F		A			D	D		D
Approach Vol, veh/h		285			682			93			272	
Approach Delay, s/veh		10.2			75.3			36.6			44.5	
Approach LOS		B			E			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	59.7	0.0	20.3	10.0	59.7	4.9	15.4				
Change Period (Y+Rc), s	4.0	4.0	3.5	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	43.0	5.5	20.0	6.0	43.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s	8.0	8.2	0.0	14.8	3.0	2.0	2.4	6.3				
Green Ext Time (p_c), s	0.0	8.4	0.0	0.7	0.0	8.7	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			52.4									
HCM 2010 LOS			D									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	209	13	35	611	18	11	33	25	23	27	33
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.87	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1793	1900	1863	1859	1900	1681	1783	1900	1827	1605	1900
Adj Flow Rate, veh/h	12	218	14	36	636	19	11	34	26	24	28	34
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	804	52	128	867	26	98	200	153	106	145	176
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1664	107	1774	1793	54	1601	878	672	1740	637	773
Grp Volume(v), veh/h	12	0	232	36	0	655	11	0	60	24	0	62
Grp Sat Flow(s),veh/h/ln	1533	0	1771	1774	0	1847	1601	0	1550	1740	0	1410
Q Serve(g_s), s	0.6	0.0	0.5	1.7	0.0	25.6	0.6	0.0	2.8	1.2	0.0	3.2
Cycle Q Clear(g_c), s	0.6	0.0	0.5	1.7	0.0	25.6	0.6	0.0	2.8	1.2	0.0	3.2
Prop In Lane	1.00		0.06	1.00		0.03	1.00		0.43	1.00		0.55
Lane Grp Cap(c), veh/h	111	0	856	128	0	892	98	0	353	106	0	321
V/C Ratio(X)	0.11	0.00	0.27	0.28	0.00	0.73	0.11	0.00	0.17	0.23	0.00	0.19
Avail Cap(c_a), veh/h	111	0	856	128	0	892	98	0	353	106	0	321
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	0.8	39.5	0.0	18.6	39.9	0.0	27.9	40.2	0.0	28.1
Incr Delay (d2), s/veh	2.0	0.0	0.8	5.4	0.0	5.3	2.3	0.0	1.0	4.9	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.4	1.0	0.0	14.2	0.3	0.0	1.3	0.7	0.0	1.4
LnGrp Delay(d),s/veh	37.9	0.0	1.6	44.9	0.0	23.9	42.3	0.0	29.0	45.1	0.0	29.4
LnGrp LOS	D		A	D		C	D		C	D		C
Approach Vol, veh/h		244			691			71			86	
Approach Delay, s/veh		3.4			25.0			31.0			33.8	
Approach LOS		A			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	6.5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+I1), s	3.7	2.5	2.6	5.2	2.6	27.6	3.2	4.8				
Green Ext Time (p_c), s	0.0	10.8	0.0	0.4	0.0	7.2	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			21.3									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	11.2											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	18	5	0	0	30	0	0	8	9	12
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	19	5	0	0	31	0	0	8	9	13
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	8.1	8.2	7.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	43%	78%	100%	0%	97%
Vol Right, %	0%	57%	22%	0%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	21	23	30	10	376
LT Vol	8	0	0	0	10	0
Through Vol	0	9	18	30	0	363
RT Vol	0	12	5	0	0	13
Lane Flow Rate	8	22	24	31	10	392
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.013	0.028	0.033	0.043	0.015	0.503
Departure Headway (Hd)	5.479	4.575	4.885	5.004	5.146	4.621
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	656	785	736	719	691	776
Service Time	3.191	2.287	2.891	3.011	2.909	2.384
HCM Lane V/C Ratio	0.012	0.028	0.033	0.043	0.014	0.505
HCM Control Delay	8.3	7.4	8.1	8.2	8	12
HCM Lane LOS	A	A	A	A	A	B
HCM 95th-tile Q	0	0.1	0.1	0.1	0	2.9

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	10	363	13
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	378	14
Number of Lanes	0	1	1	0























Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.9
HCM LOS	B

Lane



















HCM 2010 Signalized Intersection Summary
95: La Rue Rd & Orchard Rd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	11	23	14	2	37	22	157	69	89	423	101
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.93		0.98	1.00		0.96	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	4	11	24	15	2	39	23	164	72	93	441	105
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	298	279	500	49	298	613	1124	468	790	1245	289
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	229	1549	1452	1102	256	1550	855	2406	1002	1135	2666	620
Grp Volume(v), veh/h	15	0	24	17	0	39	23	118	118	93	289	257
Grp Sat Flow(s),veh/h/ln	1778	0	1452	1358	0	1550	855	1770	1638	1135	1770	1516
Q Serve(g_s), s	0.0	0.0	0.3	0.0	0.0	0.5	0.4	0.9	1.0	1.2	2.4	2.6
Cycle Q Clear(g_c), s	0.2	0.0	0.3	0.2	0.0	0.5	3.0	0.9	1.0	2.2	2.4	2.6
Prop In Lane	0.27		1.00	0.88		1.00	1.00		0.61	1.00		0.41
Lane Grp Cap(c), veh/h	536	0	279	550	0	298	613	827	765	790	827	708
V/C Ratio(X)	0.03	0.00	0.09	0.03	0.00	0.13	0.04	0.14	0.15	0.12	0.35	0.36
Avail Cap(c_a), veh/h	2088	0	1608	1764	0	1717	1160	1960	1815	1518	1960	1680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.7	0.0	7.8	7.7	0.0	7.9	5.0	3.6	3.6	4.2	4.0	4.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.4	0.4	0.4	1.2	1.1
LnGrp Delay(d),s/veh	7.7	0.0	7.9	7.8	0.0	8.1	5.0	3.7	3.7	4.3	4.2	4.3
LnGrp LOS	A		A	A		A	A	A	A	A	A	A
Approach Vol, veh/h		39			56			259			639	
Approach Delay, s/veh		7.9			8.0			3.8			4.3	
Approach LOS		A			A			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.0		8.5		15.0		8.5				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		5.0		2.3		4.6		2.5				
Green Ext Time (p_c), s		5.6		0.3		5.7		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			4.5									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	1	29	2	38	6	419	10	17	418	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.85	1.00		0.61	1.00		0.84	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	0	1	30	2	40	6	436	10	18	435	0
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	34	0	34	33	2	44	11	830	19	32	879	0
Arrive On Green	0.04	0.00	0.04	0.07	0.07	0.07	0.01	0.46	0.46	0.02	0.47	0.00
Sat Flow, veh/h	763	0	763	505	34	673	1774	1805	41	1774	1863	0
Grp Volume(v), veh/h	2	0	0	72	0	0	6	0	446	18	435	0
Grp Sat Flow(s),veh/h/ln	1526	0	0	1211	0	0	1774	0	1846	1774	1863	0
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	0.0	0.1	0.0	6.7	0.4	6.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.3	0.0	0.0	0.1	0.0	6.7	0.4	6.3	0.0
Prop In Lane	0.50		0.50	0.42		0.56	1.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	69	0	0	80	0	0	11	0	849	32	879	0
V/C Ratio(X)	0.03	0.00	0.00	0.90	0.00	0.00	0.52	0.00	0.53	0.56	0.49	0.00
Avail Cap(c_a), veh/h	627	0	0	498	0	0	182	0	1233	182	1244	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.8	0.0	0.0	18.1	0.0	0.0	19.3	0.0	7.5	19.0	7.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	46.3	0.0	0.0	32.5	0.0	1.1	14.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	1.8	0.0	0.0	0.2	0.0	3.6	0.3	3.4	0.0
LnGrp Delay(d),s/veh	18.0	0.0	0.0	64.4	0.0	0.0	51.7	0.0	8.6	33.2	8.0	0.0
LnGrp LOS	B			E			D		A	C	A	
Approach Vol, veh/h		2			72			452			453	
Approach Delay, s/veh		18.0			64.4			9.1			9.0	
Approach LOS		B			E			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	21.9		5.7	4.3	22.4		6.6				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	26.0		16.0	4.0	26.0		16.0				
Max Q Clear Time (g_c+I1), s	2.4	8.7		2.0	2.1	8.3		4.3				
Green Ext Time (p_c), s	0.0	9.2		0.0	0.0	9.4		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			13.2									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

User approved volume balancing among the lanes for turning movement.

Intersection

Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	9	32	0	0	12	80	9	0	14	26	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	33	0	0	13	83	9	0	15	27	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.4	8.7	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	33%	22%	12%	4%
Vol Thru, %	62%	78%	79%	78%
Vol Right, %	5%	0%	9%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	41	101	348
LT Vol	14	9	12	14
Through Vol	26	32	80	272
RT Vol	2	0	9	62
Lane Flow Rate	44	43	105	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.06	0.142	0.429
Departure Headway (Hd)	4.729	5.028	4.87	4.259
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	757	711	735	848
Service Time	2.761	3.066	2.904	2.278
HCM Lane V/C Ratio	0.058	0.06	0.143	0.427
HCM Control Delay	8	8.4	8.7	10.5
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.2	0.2	0.5	2.2

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	14	272	62
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	283	65
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 1

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1

HCM Control Delay 10.5

HCM LOS B

Lane

Intersection												
Int Delay, s/veh	1.6											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	6	15	9	7	27	4	405	12	38	396	15
Conflicting Peds, #/hr	0	0	21	0	0	15	0	0	5	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	16	9	7	28	4	422	12	40	412	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	989	978	446	982	979	458	449	0	0	449	0	0
Stage 1	520	520	-	451	451	-	-	-	-	-	-	-
Stage 2	469	458	-	531	528	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	226	250	612	228	250	603	1111	-	-	1111	-	-
Stage 1	539	532	-	588	571	-	-	-	-	-	-	-
Stage 2	575	567	-	532	528	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	198	233	599	207	233	588	1106	-	-	1097	-	-
Mov Cap-2 Maneuver	198	233	-	207	233	-	-	-	-	-	-	-
Stage 1	528	504	-	579	562	-	-	-	-	-	-	-
Stage 2	532	558	-	491	500	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.8	16.4	0.1	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1106	-	-	333	360	1097	-	-
HCM Lane V/C Ratio	0.004	-	-	0.084	0.124	0.036	-	-
HCM Control Delay (s)	8.3	-	-	16.8	16.4	8.4	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0.1	-	-

Intersection												
Intersection Delay, s/veh	8.4											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	8	0	5	0	0	0	0	0	11	12	42
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	0	5	0	0	0	0	0	11	13	44
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.6	0	7.2
HCM LOS	A	-	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	62%	0%	7%
Vol Thru, %	18%	0%	100%	93%
Vol Right, %	65%	38%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	14	0	260
LT Vol	11	9	0	18
Through Vol	12	0	0	242
RT Vol	42	5	0	0
Lane Flow Rate	68	15	0	271
Geometry Grp	1	1	1	1
Degree of Util (X)	0.072	0.018	0	0.303
Departure Headway (Hd)	3.807	4.543	4.672	4.024
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	932	793	0	894
Service Time	1.869	2.543	2.672	2.044
HCM Lane V/C Ratio	0.073	0.019	0	0.303
HCM Control Delay	7.2	7.6	7.7	8.8
HCM Lane LOS	A	A	N	A
HCM 95th-tile Q	0.2	0.1	0	1.3

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	18	242	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	19	252	0
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

Intersection													
Int Delay, s/veh	0.3												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	2	5	1	165	9	37	2	44	96	0	0	0
Conflicting Peds, #/hr	0	0	90	0	0	0	26	0	0	6	0	0	73
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2	5	1	172	9	39	2	46	100	0	0	0

Major/Minor	Minor2			Major2				Minor1		
Conflicting Flow All	491	470	119	100	6	0	0	472	490	33
Stage 1	462	464	-	-	-	-	-	6	6	-
Stage 2	29	6	-	-	-	-	-	466	484	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	537	492	933	-	-	-	-	551	479	-
Stage 1	634	564	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	632	552	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	459	0	863	-	-	-	-	548	0	-
Mov Cap-2 Maneuver	459	0	-	-	-	-	-	548	0	-
Stage 1	586	0	-	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	-	632	0	-

Approach	EB	WB	NB
HCM Control Delay, s	10.9		
HCM LOS	B		-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	548	-	620	-	-	-
HCM Lane V/C Ratio	0.087	-	0.018	-	-	-
HCM Control Delay (s)	12.2	-	10.9	-	-	-
HCM Lane LOS	B	-	B	-	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-	-





















Intersection									
Intersection Delay, s/veh	11.7								
Intersection LOS	B								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	69	40	0	84	361	0	152	221
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	72	42	0	88	376	0	158	230
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	10.1	12.6	11.1
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	40	84	361	152	221
LT Vol	69	0	0	0	152	0
Through Vol	0	40	84	0	0	0
RT Vol	0	0	0	361	0	221
Lane Flow Rate	72	42	88	376	158	230
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.134	0.072	0.139	0.523	0.287	0.339
Departure Headway (Hd)	6.71	6.201	5.833	5.124	6.515	5.306
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	535	579	619	707	554	681
Service Time	4.433	3.924	3.533	2.824	4.222	3.013
HCM Lane V/C Ratio	0.135	0.073	0.142	0.532	0.285	0.338
HCM Control Delay	10.5	9.4	9.5	13.3	11.8	10.7
HCM Lane LOS	B	A	A	B	B	B
HCM 95th-tile Q	0.5	0.2	0.5	3.1	1.2	1.5

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	90	19	21	481	53	5	1	18	27	12	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.96	0.99		0.82	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	94	20	22	501	55	5	1	19	28	12	14
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	7	475	101	50	852	93	275	28	138	255	0	162
Arrive On Green	0.00	0.32	0.32	0.03	0.52	0.52	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	1468	312	1774	1642	180	1	262	1300	1	0	1518
Grp Volume(v), veh/h	0	0	114	22	0	556	6	0	19	40	0	14
Grp Sat Flow(s),veh/h/ln	1774	0	1781	1774	0	1822	263	0	1300	1	0	1518
Q Serve(g_s), s	0.0	0.0	1.1	0.3	0.0	5.1	0.0	0.0	0.3	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	1.1	0.3	0.0	5.1	2.6	0.0	0.3	2.6	0.0	0.2
Prop In Lane	1.00		0.18	1.00		0.10	0.83		1.00	0.70		1.00
Lane Grp Cap(c), veh/h	7	0	576	50	0	945	303	0	138	255	0	162
V/C Ratio(X)	0.00	0.00	0.20	0.44	0.00	0.59	0.02	0.00	0.14	0.16	0.00	0.09
Avail Cap(c_a), veh/h	813	0	2226	813	0	2278	1103	0	867	1080	0	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	5.9	11.5	0.0	4.0	9.7	0.0	9.7	12.0	0.0	9.7
Incr Delay (d2), s/veh	0.0	0.0	0.1	2.2	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.5	0.2	0.0	2.5	0.0	0.0	0.1	0.3	0.0	0.1
LnGrp Delay(d),s/veh	0.0	0.0	5.9	13.7	0.0	4.2	9.7	0.0	9.9	12.1	0.0	9.8
LnGrp LOS			A	B		A	A		A	B		A
Approach Vol, veh/h		114			578			25				54
Approach Delay, s/veh		5.9			4.6			9.9				11.5
Approach LOS		A			A			A				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	12.8		6.6	0.0	17.4		6.6				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	11.0	30.0		16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+I1), s	2.3	3.1		4.6	0.0	7.1		4.6				
Green Ext Time (p_c), s	0.0	3.2		0.1	0.0	3.1		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			5.4									
HCM 2010 LOS			A									






















Intersection									
Intersection Delay, s/veh	10								
Intersection LOS	A								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	130	138	0	225	3	0	3	196
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	135	144	0	234	3	0	3	204
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	10.7	10	9.2
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	49%	0%	2%
Vol Thru, %	51%	99%	0%
Vol Right, %	0%	1%	98%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	268	228	199
LT Vol	130	0	3
Through Vol	138	225	0
RT Vol	0	3	196
Lane Flow Rate	279	238	207
Geometry Grp	1	1	1
Degree of Util (X)	0.371	0.313	0.262
Departure Headway (Hd)	4.788	4.737	4.545
Convergence, Y/N	Yes	Yes	Yes
Cap	748	755	786
Service Time	2.844	2.793	2.597
HCM Lane V/C Ratio	0.373	0.315	0.263
HCM Control Delay	10.7	10	9.2
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.7	1.3	1

HCM 2010 Signalized Intersection Summary
94: La Rue Rd & Hutchison Dr

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	1	127	213	117	5	62	40	51	80	12	209	140
Number		7	4	14	3	8	18	5	2	12	1	6
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98		1.00	1.00		0.93	1.00		0.97	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h		132	222	0	5	65	42	49	88	12	163	223
Adj No. of Lanes		1	2	0	1	1	1	1	2	0	1	2
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		683	1236	0	625	651	514	551	1111	148	695	779
Arrive On Green		0.35	0.35	0.00	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h		1256	3632	0	1149	1863	1470	1024	3206	427	1287	2249
Grp Volume(v), veh/h		132	222	0	5	65	42	49	50	50	163	183
Grp Sat Flow(s),veh/h/ln		1256	1770	0	1149	1863	1470	1024	1863	1770	1287	1863
Q Serve(g_s), s		2.1	1.1	0.0	0.1	0.6	0.5	1.0	0.5	0.5	2.6	1.9
Cycle Q Clear(g_c), s		2.7	1.1	0.0	1.2	0.6	0.5	3.0	0.5	0.5	3.1	1.9
Prop In Lane		1.00		0.00	1.00		1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h		683	1236	0	625	651	514	551	646	613	695	646
V/C Ratio(X)		0.19	0.18	0.00	0.01	0.10	0.08	0.09	0.08	0.08	0.23	0.28
Avail Cap(c_a), veh/h		1485	3497	0	1359	1841	1453	1208	1841	1749	1521	1841
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.7	5.9	0.0	6.4	5.8	5.7	7.4	5.8	5.8	6.8	6.2
Incr Delay (d2), s/veh		0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln		0.7	0.6	0.0	0.0	0.3	0.2	0.3	0.2	0.2	0.9	1.0
LnGrp Delay(d),s/veh		6.8	6.0	0.0	6.4	5.8	5.8	7.4	5.8	5.8	7.0	6.5
LnGrp LOS		A	A		A	A	A	A	A	A	A	A
Approach Vol, veh/h			354			112			149			512
Approach Delay, s/veh			6.3			5.8			6.4			6.7
Approach LOS			A			A			A			A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		13.2		13.1		13.2				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		5.0		4.7		5.1		3.2				
Green Ext Time (p_c), s		3.5		2.5		3.5		2.5				
Intersection Summary												
HCM 2010 Ctrl Delay			6.4									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												

Movement	SBR
Lane Configurations	
Volume (veh/h)	121
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.96
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	126
Adj No. of Lanes	0
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	419
Arrive On Green	0.35
Sat Flow, veh/h	1208
Grp Volume(v), veh/h	166
Grp Sat Flow(s),veh/h/ln	1595
Q Serve(g_s), s	2.0
Cycle Q Clear(g_c), s	2.0
Prop In Lane	0.76
Lane Grp Cap(c), veh/h	553
V/C Ratio(X)	0.30
Avail Cap(c_a), veh/h	1576
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	6.3
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(-26165%),veh/ln	0.9
LnGrp Delay(d),s/veh	6.6
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	

Timer

User approved ignoring U-Turning movement.

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	24	0	10	0	5	0	2	0	16	123	32
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	0	10	0	5	0	2	0	17	128	33
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	7.9	7.8	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	9%	71%	71%	1%	0%
Vol Thru, %	72%	0%	0%	99%	0%
Vol Right, %	19%	29%	29%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	34	7	137	34
LT Vol	16	24	5	1	0
Through Vol	123	0	0	136	0
RT Vol	32	10	2	0	34
Lane Flow Rate	178	35	7	143	35
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.205	0.046	0.01	0.186	0.039
Departure Headway (Hd)	4.142	4.698	4.742	4.7	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	853	767	759	758	887
Service Time	2.235	2.699	2.744	2.467	1.761
HCM Lane V/C Ratio	0.209	0.046	0.009	0.189	0.039
HCM Control Delay	8.3	7.9	7.8	8.6	6.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.8	0.1	0	0.7	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	136	34
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	1	142	35
Number of Lanes	0	0	1	1























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A

Lane

























HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	314	17	9	442	51	78	3	19	11	0	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.87	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	154	327	18	9	460	53	81	3	20	11	0	21
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	873	48	21	744	616	116	29	195	25	196	77
Arrive On Green	0.11	0.50	0.50	0.01	0.40	0.40	0.07	0.16	0.16	0.01	0.00	0.10
Sat Flow, veh/h	1774	1746	96	1774	1863	1542	1774	187	1244	1774	1863	733
Grp Volume(v), veh/h	154	0	345	9	460	53	81	0	23	11	0	21
Grp Sat Flow(s),veh/h/ln	1774	0	1842	1774	1863	1542	1774	0	1431	1774	1863	733
Q Serve(g_s), s	4.5	0.0	6.2	0.3	10.5	1.1	2.4	0.0	0.7	0.3	0.0	1.4
Cycle Q Clear(g_c), s	4.5	0.0	6.2	0.3	10.5	1.1	2.4	0.0	0.7	0.3	0.0	1.4
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	199	0	921	21	744	616	116	0	224	25	196	77
V/C Ratio(X)	0.78	0.00	0.37	0.43	0.62	0.09	0.70	0.00	0.10	0.44	0.00	0.27
Avail Cap(c_a), veh/h	365	0	1034	265	1045	866	265	0	224	265	279	110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	8.2	26.2	12.8	10.0	24.5	0.0	19.3	26.1	0.0	22.0
Incr Delay (d2), s/veh	6.3	0.0	0.5	13.6	1.8	0.1	7.3	0.0	0.4	11.7	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	0.0	3.2	0.2	5.7	0.5	1.4	0.0	0.3	0.2	0.0	0.3
LnGrp Delay(d),s/veh	29.4	0.0	8.8	39.9	14.6	10.1	31.8	0.0	19.8	37.8	0.0	23.9
LnGrp LOS	C		A	D	B	B	C		B	D		C
Approach Vol, veh/h		499			522			104				32
Approach Delay, s/veh		15.1			14.6			29.1				28.7
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	31.7	7.5	9.6	10.0	26.4	4.8	12.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	2.3	8.2	4.4	3.4	6.5	12.5	2.3	2.7				
Green Ext Time (p_c), s	0.0	10.1	0.0	0.0	0.2	8.8	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			16.5									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions + Nishi Alt. 1
AM Peak Hour

























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	243	17	14	347	25	64	8	42	2	4	71
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.90	1.00		0.47
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	43	253	18	15	361	26	67	8	44	2	4	74
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	69	627	499	27	584	479	96	360	276	5	6	103
Arrive On Green	0.04	0.34	0.34	0.02	0.31	0.31	0.05	0.19	0.19	0.00	0.14	0.14
Sat Flow, veh/h	1774	1863	1483	1774	1863	1530	1774	1863	1427	1774	39	726
Grp Volume(v), veh/h	43	253	18	15	361	26	67	8	44	2	0	78
Grp Sat Flow(s),veh/h/ln	1774	1863	1483	1774	1863	1530	1774	1863	1427	1774	0	765
Q Serve(g_s), s	0.9	3.8	0.3	0.3	6.0	0.4	1.4	0.1	0.9	0.0	0.0	3.6
Cycle Q Clear(g_c), s	0.9	3.8	0.3	0.3	6.0	0.4	1.4	0.1	0.9	0.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.95
Lane Grp Cap(c), veh/h	69	627	499	27	584	479	96	360	276	5	0	108
V/C Ratio(X)	0.63	0.40	0.04	0.55	0.62	0.05	0.70	0.02	0.16	0.41	0.00	0.72
Avail Cap(c_a), veh/h	195	1557	1240	195	1557	1279	195	360	276	195	0	126
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.3	9.3	8.1	17.8	10.7	8.7	17.0	11.9	12.2	18.2	0.0	15.0
Incr Delay (d2), s/veh	9.0	0.2	0.0	15.9	0.4	0.0	8.8	0.0	0.1	47.4	0.0	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	1.9	0.1	0.3	3.1	0.2	0.9	0.1	0.4	0.1	0.0	1.1
LnGrp Delay(d),s/veh	26.3	9.4	8.1	33.7	11.1	8.8	25.8	11.9	12.3	65.6	0.0	26.7
LnGrp LOS	C	A	A	C	B	A	C	B	B	E		C
Approach Vol, veh/h		314			402			119				80
Approach Delay, s/veh		11.7			11.8			19.9				27.7
Approach LOS		B			B			B				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	16.8	6.0	9.2	5.4	15.9	4.1	11.1				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	4.0	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+I1), s	2.3	5.8	3.4	5.6	2.9	8.0	2.0	2.9				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.0	0.0	2.5	0.0	0.2				

Intersection Summary												
HCM 2010 Ctrl Delay			14.2									
HCM 2010 LOS			B									

Notes
User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions + Nishi Alt. 1
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	129	208	138	436	38	106	43	137	12	38	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	84	134	0	144	454	0	110	45	0	12	40	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	391	333	181	872	390	139	307	261	22	184	156
Arrive On Green	0.07	0.21	0.00	0.10	0.25	0.00	0.08	0.16	0.00	0.01	0.10	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	84	134	0	144	454	0	110	45	0	12	40	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.5	1.9	0.0	2.5	3.5	0.0	1.9	0.6	0.0	0.2	0.6	0.0
Cycle Q Clear(g_c), s	1.5	1.9	0.0	2.5	3.5	0.0	1.9	0.6	0.0	0.2	0.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	117	391	333	181	872	390	139	307	261	22	184	156
V/C Ratio(X)	0.72	0.34	0.00	0.79	0.52	0.00	0.79	0.15	0.00	0.53	0.22	0.00
Avail Cap(c_a), veh/h	226	950	808	226	1354	606	226	832	707	226	832	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	10.5	0.0	13.8	10.2	0.0	14.2	11.2	0.0	15.4	13.0	0.0
Incr Delay (d2), s/veh	7.8	0.2	0.0	14.2	0.2	0.0	9.5	0.1	0.0	18.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	1.0	0.0	1.9	1.7	0.0	1.3	0.3	0.0	0.2	0.3	0.0
LnGrp Delay(d),s/veh	22.2	10.7	0.0	28.0	10.4	0.0	23.7	11.3	0.0	33.7	13.2	0.0
LnGrp LOS	C	B		C	B		C	B		C	B	
Approach Vol, veh/h		218			598			155			52	
Approach Delay, s/veh		15.2			14.6			20.1			17.9	
Approach LOS		B			B			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	9.2	7.2	10.6	6.5	7.1	6.1	11.7				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	2.6	4.5	3.9	3.9	2.6	3.5	5.5				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.2	0.0	0.2	0.0	1.6				
Intersection Summary												
HCM 2010 Ctrl Delay			15.7									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection												
Int Delay, s/veh	1.3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	0	12	1	4	2	28	138	2	1	172	201
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	0	12	1	4	2	29	144	2	1	179	209

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	494	492	288	497	596	145	391	0	0	146	0	0
Stage 1	288	288	-	203	203	-	-	-	-	-	-	-
Stage 2	206	204	-	294	393	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	486	478	751	483	417	902	1168	-	-	1436	-	-
Stage 1	720	674	-	799	733	-	-	-	-	-	-	-
Stage 2	796	733	-	714	606	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	471	465	748	465	406	902	1166	-	-	1436	-	-
Mov Cap-2 Maneuver	471	465	-	465	406	-	-	-	-	-	-	-
Stage 1	701	672	-	779	715	-	-	-	-	-	-	-
Stage 2	770	715	-	700	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.4	1.4	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1166	-	-	471	748	492	1436	-	-
HCM Lane V/C Ratio	0.025	-	-	0.051	0.017	0.015	0.001	-	-
HCM Control Delay (s)	8.2	-	-	13.1	9.9	12.4	7.5	-	-
HCM Lane LOS	A	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	0	-	-

Intersection

Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	73	68	27	0	31	194	4	0	19	92	39
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	76	71	28	0	32	202	4	0	20	96	41
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	9.9	11.2	10.1
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	70%	0%	72%	0%	98%	0%	27%
Vol Right, %	0%	30%	0%	28%	0%	2%	0%	73%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	131	73	95	31	198	2	211
LT Vol	19	0	73	0	31	0	2	0
Through Vol	0	92	0	68	0	194	0	58
RT Vol	0	39	0	27	0	4	0	153
Lane Flow Rate	20	136	76	99	32	206	2	220
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.036	0.221	0.137	0.158	0.057	0.335	0.004	0.333
Departure Headway (Hd)	6.555	5.838	6.467	5.759	6.372	5.852	6.473	5.454
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	547	615	555	623	563	615	553	659
Service Time	4.29	3.572	4.2	3.492	4.103	3.583	4.205	3.186
HCM Lane V/C Ratio	0.037	0.221	0.137	0.159	0.057	0.335	0.004	0.334
HCM Control Delay	9.5	10.2	10.2	9.6	9.5	11.5	9.2	10.9
HCM Lane LOS	A	B	B	A	A	B	A	B
HCM 95th-tile Q	0.1	0.8	0.5	0.6	0.2	1.5	0	1.5

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	2	58	153
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	2	60	159
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	10.9
HCM LOS	B

Lane

Intersection									
Intersection Delay, s/veh	9.6								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	46	117	0	81	93	0	198	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	122	0	84	97	0	206	58
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.5	9.3	10.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	78%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	22%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	254	46	117	81	93
LT Vol	198	0	0	81	0
Through Vol	0	46	0	0	93
RT Vol	56	0	117	0	0
Lane Flow Rate	265	48	122	84	97
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.353	0.072	0.159	0.138	0.144
Departure Headway (Hd)	4.8	5.408	4.702	5.871	5.367
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	749	660	759	608	666
Service Time	2.841	3.164	2.456	3.628	3.123
HCM Lane V/C Ratio	0.354	0.073	0.161	0.138	0.146
HCM Control Delay	10.5	8.6	8.4	9.6	9
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.6	0.2	0.6	0.5	0.5

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	92	29	1	0	0	29	3	0	14	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	96	30	1	0	0	30	3	0	15	2	1
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	8.6	7.8	8.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	67%	0%	97%	100%	91%	0%	1%
Vol Right, %	0%	33%	0%	3%	0%	9%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	3	92	30	0	32	7	97
LT Vol	14	0	92	0	0	0	7	0
Through Vol	0	2	0	29	0	29	0	1
RT Vol	0	1	0	1	0	3	0	96
Lane Flow Rate	15	3	96	31	0	33	7	101
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.022	0.004	0.14	0.041	0	0.045	0.011	0.12
Departure Headway (Hd)	5.553	4.816	5.266	4.742	4.943	4.878	5.482	4.285
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	648	747	673	745	0	737	657	842
Service Time	3.257	2.521	3.061	2.537	2.652	2.586	3.184	1.987
HCM Lane V/C Ratio	0.023	0.004	0.143	0.042	0	0.045	0.011	0.12
HCM Control Delay	8.4	7.5	8.9	7.7	7.7	7.8	8.2	7.6
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.5	0.1	0	0.1	0	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	1	96
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	100
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	7.6
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 2.1

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2	150	104	46	107	35	58
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	None	-	Yield
Storage Length	-	-	0	75	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	2	156	108	48	111	36	60

Major/Minor

	Major1		Major2		Minor1	
Conflicting Flow All	111	0	0	156	0	363
Stage 1	-	-	-	-	-	156
Stage 2	-	-	-	-	-	207
Critical Hdwy	-	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	-	5.42
Follow-up Hdwy	-	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	-	1424	-	636
Stage 1	-	-	-	-	-	872
Stage 2	-	-	-	-	-	828
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1424	-	615
Mov Cap-2 Maneuver	-	-	-	-	-	615
Stage 1	-	-	-	-	-	872
Stage 2	-	-	-	-	-	800

Approach

	EB	WB	NB
HCM Control Delay, s		2.3	7.7
HCM LOS			A

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1427	-	-	1424	-
HCM Lane V/C Ratio	0.068	-	-	0.034	-
HCM Control Delay (s)	7.7	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	6	190	1	146	54	15	8
Conflicting Peds, #/hr	0	0	0	0	2	0	1
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	125
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	6	198	1	152	56	16	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	209	0	198
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1362	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1362	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2		10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1362	-	-	-	609	861
HCM Lane V/C Ratio	0.005	-	-	-	0.026	0.01
HCM Control Delay (s)	7.7	-	-	-	11.1	9.2
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	38	190	296	207	18	16
Conflicting Peds, #/hr	0	0	0	5	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	198	308	216	19	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	525	0	694
Stage 1	-	-	417
Stage 2	-	-	277
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1042	-	409
Stage 1	-	-	665
Stage 2	-	-	770
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1042	-	391
Mov Cap-2 Maneuver	-	-	391
Stage 1	-	-	664
Stage 2	-	-	736

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1042	-	-	-	477
HCM Lane V/C Ratio	0.038	-	-	-	0.074
HCM Control Delay (s)	8.6	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection												
Intersection Delay, s/veh	16.1											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	32	152	0	9	30	0	0	499	18	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	33	158	0	9	31	0	0	520	19	14
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.8	9.1	19.2
HCM LOS	A	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	94%	2%	23%	0%
Vol Thru, %	3%	17%	77%	14%
Vol Right, %	2%	81%	0%	86%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	530	188	39	21
LT Vol	499	4	9	0
Through Vol	18	32	30	3
RT Vol	13	152	0	18
Lane Flow Rate	552	196	41	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.723	0.267	0.064	0.028
Departure Headway (Hd)	4.716	4.915	5.666	4.676
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	762	727	626	755
Service Time	2.774	2.98	3.755	2.768
HCM Lane V/C Ratio	0.724	0.27	0.065	0.029
HCM Control Delay	19.2	9.8	9.1	7.9
HCM Lane LOS	C	A	A	A
HCM 95th-tile Q	6.3	1.1	0.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	3	18
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	3	19
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	12.7											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	359	0	50	0	0	0	0	0	0	54	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	374	0	52	0	0	0	0	0	0	56	11
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	3	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	14.1	9.4
HCM LOS	B	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	83%	0%	0%	0%	100%	100%
Vol Right, %	17%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	359	50	13	32	32
LT Vol	0	359	0	13	0	0
Through Vol	54	0	0	0	32	32
RT Vol	11	0	50	0	0	0
Lane Flow Rate	68	374	52	14	33	33
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.11	0.566	0.061	0.024	0.053	0.037
Departure Headway (Hd)	5.869	5.444	4.243	6.29	5.785	4.033
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	609	662	841	569	619	884
Service Time	3.621	3.188	1.987	4.032	3.526	1.774
HCM Lane V/C Ratio	0.112	0.565	0.062	0.025	0.053	0.037
HCM Control Delay	9.4	15.1	7.3	9.2	8.9	6.9
HCM Lane LOS	A	C	A	A	A	A
HCM 95th-tile Q	0.4	3.6	0.2	0.1	0.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	13	63	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	14	66	0
Number of Lanes	0	1	2	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.1
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	18											
Intersection LOS	C											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	0	0	0	33	2	527	0	25	387	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	34	2	549	0	26	403	0
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0

Approach	WB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	NB	
Conflicting Lanes Left	3	0
Conflicting Approach Right	SB	WB
Conflicting Lanes Right	3	2
HCM Control Delay	24.2	11
HCM LOS	C	B

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	97%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	3%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	194	194	34	528	22	22	24
LT Vol	25	0	0	33	0	0	0	0
Through Vol	0	194	194	1	1	22	22	0
RT Vol	0	0	0	0	527	0	0	24
Lane Flow Rate	26	202	202	35	550	23	23	25
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.051	0.364	0.265	0.063	0.795	0.046	0.046	0.033
Departure Headway (Hd)	7.008	6.498	4.729	6.385	5.206	7.242	7.242	4.742
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	510	552	756	561	693	493	493	749
Service Time	4.758	4.248	2.477	4.12	2.941	5.01	5.01	2.508
HCM Lane V/C Ratio	0.051	0.366	0.267	0.062	0.794	0.047	0.047	0.033
HCM Control Delay	10.1	12.9	9.2	9.6	25.1	10.4	10.4	7.7
HCM Lane LOS	B	B	A	A	D	B	B	A
HCM 95th-tile Q	0.2	1.7	1.1	0.2	8	0.1	0.1	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	44	24
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	46	25
Number of Lanes	0	0	2	1

Approach SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	
Conflicting Lanes Right	0
HCM Control Delay	9.4
HCM LOS	A

Lane

Intersection			
Intersection Delay, s/veh	35.0		
Intersection LOS	E		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	955	102	179
Demand Flow Rate, veh/h	974	104	182
Vehicles Circulating, veh/h	124	503	14
Vehicles Exiting, veh/h	72	595	593
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	43.7	7.1	4.7
Approach LOS	E	A	A
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	974	104	182
Cap Entry Lane, veh/h	998	683	1114
Entry HV Adj Factor	0.980	0.978	0.983
Flow Entry, veh/h	955	102	179
Cap Entry, veh/h	978	668	1096
V/C Ratio	0.976	0.152	0.163
Control Delay, s/veh	43.7	7.1	4.7
LOS	E	A	A
95th %tile Queue, veh	17	1	1

Intersection

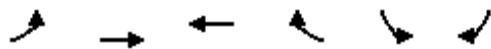
Int Delay, s/veh 0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	308	252	41	102	0	21
Conflicting Peds, #/hr	0	6	0	0	0	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	75	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	321	262	43	106	0	22

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	657
Stage 1	-	-	465
Stage 2	-	-	192
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	980	430
Stage 1	-	-	632
Stage 2	-	-	841
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	980	405
Mov Cap-2 Maneuver	-	-	405
Stage 1	-	-	625
Stage 2	-	-	800

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	591	-	-	980	-
HCM Lane V/C Ratio	-	0.037	-	-	0.044	-
HCM Control Delay (s)	0	11.3	-	-	8.8	-
HCM Lane LOS	A	B	-	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.1	-



Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Volume (veh/h)	42	286	101	33	25	42		
Number	7	4	8	18	1	16		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	0.92			0.87	1.00	0.84		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900		
Adj Flow Rate, veh/h	44	298	105	34	26	44		
Adj No. of Lanes	1	1	1	0	0	0		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	2	0	0		
Cap, veh/h	406	485	338	109	289	489		
Arrive On Green	0.26	0.26	0.26	0.26	0.54	0.54		
Sat Flow, veh/h	1148	1863	1297	420	537	909		
Grp Volume(v), veh/h	44	298	0	139	71	0		
Grp Sat Flow(s),veh/h/ln	1148	1863	0	1717	1467	0		
Q Serve(g_s), s	1.3	5.6	0.0	2.6	0.9	0.0		
Cycle Q Clear(g_c), s	3.9	5.6	0.0	2.6	0.9	0.0		
Prop In Lane	1.00			0.24	0.37	0.62		
Lane Grp Cap(c), veh/h	406	485	0	447	789	0		
V/C Ratio(X)	0.11	0.61	0.00	0.31	0.09	0.00		
Avail Cap(c_a), veh/h	860	1221	0	693	962	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	13.4	12.9	0.0	11.8	4.4	0.0		
Incr Delay (d2), s/veh	0.1	1.3	0.0	0.4	0.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	0.4	3.0	0.0	1.2	0.4	0.0		
LnGrp Delay(d),s/veh	13.5	14.2	0.0	12.2	4.5	0.0		
LnGrp LOS	B	B		B	A			
Approach Vol, veh/h		342	139		71			
Approach Delay, s/veh		14.1	12.2		4.5			
Approach LOS		B	B		A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				14.3		25.3		14.3
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				7.6		2.9		4.6
Green Ext Time (p_c), s				2.8		0.2		2.2
Intersection Summary								
HCM 2010 Ctrl Delay			12.4					
HCM 2010 LOS			B					
Notes								
User approved volume balancing among the lanes for turning movement.								

Intersection												
Intersection Delay, s/veh	8.6											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	25	157	59	0	56	125	9	0	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	164	61	0	58	130	9	0	2	2	1
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.8	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	40%	100%	0%	100%	0%
Vol Thru, %	40%	0%	73%	0%	93%
Vol Right, %	20%	0%	27%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	25	216	56	134
LT Vol	2	25	0	56	0
Through Vol	2	0	157	0	125
RT Vol	1	0	59	0	9
Lane Flow Rate	5	26	225	58	140
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.007	0.037	0.278	0.084	0.179
Departure Headway (Hd)	4.901	5.141	4.449	5.165	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	735	693	803	690	772
Service Time	2.901	2.897	2.205	2.922	2.374
HCM Lane V/C Ratio	0.007	0.038	0.28	0.084	0.181
HCM Control Delay	7.9	8.1	8.9	8.4	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.1	1.1	0.3	0.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach

Opposing Lanes

Conflicting Approach Left

Conflicting Lanes Left

Conflicting Approach Right

Conflicting Lanes Right

HCM Control Delay

HCM LOS

Lane

Intersection













Int Delay, s/veh 0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	8	223	192	3	10	3
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	232	200	3	10	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	203	0	451
Stage 1	-	-	202
Stage 2	-	-	249
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1369	-	566
Stage 1	-	-	832
Stage 2	-	-	792
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1369	-	563
Mov Cap-2 Maneuver	-	-	625
Stage 1	-	-	832
Stage 2	-	-	787



















Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1369	-	-	-	664
HCM Lane V/C Ratio	0.006	-	-	-	0.02
HCM Control Delay (s)	7.6	-	-	-	10.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	140	82	71	328	272	132		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	149	87	76	349	289	140		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	286	256	138	952	603	506		
Arrive On Green	0.16	0.16	0.08	0.53	0.32	0.32		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1561		
Grp Volume(v), veh/h	149	87	76	349	289	140		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1561		
Q Serve(g_s), s	2.4	1.5	1.3	3.5	3.8	2.1		
Cycle Q Clear(g_c), s	2.4	1.5	1.3	3.5	3.8	2.1		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	286	256	138	952	603	506		
V/C Ratio(X)	0.52	0.34	0.55	0.37	0.48	0.28		
Avail Cap(c_a), veh/h	1149	1025	919	1770	1236	1036		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	11.9	11.5	13.7	4.2	8.4	7.8		
Incr Delay (d2), s/veh	1.5	0.8	3.4	0.2	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.7	0.7	1.7	2.0	0.9		
LnGrp Delay(d),s/veh	13.3	12.3	17.2	4.5	8.9	8.0		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	236			425	429			
Approach Delay, s/veh	12.9			6.7	8.7			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.0	6.4	14.5				20.9
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.4	3.3	5.8				5.5
Green Ext Time (p_c), s		0.6	0.1	4.1				4.9
Intersection Summary								
HCM 2010 Ctrl Delay			8.8					
HCM 2010 LOS			A					





















HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	222	45	44	127	0	59	126	42	17	88	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.90	0.99		0.76
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1823	1900	1900	1861	1900
Adj Flow Rate, veh/h	11	236	48	47	135	0	63	134	45	18	94	3
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2
Cap, veh/h	100	1060	872	722	1079	0	173	239	70	127	375	11
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.00	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	22	1830	1506	1078	1863	0	287	1016	298	127	1598	46
Grp Volume(v), veh/h	247	0	48	47	135	0	242	0	0	115	0	0
Grp Sat Flow(s),veh/h/ln	1852	0	1506	1078	1863	0	1601	0	0	1772	0	0
Q Serve(g_s), s	0.0	0.0	0.6	1.0	1.4	0.0	2.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.8	0.0	0.6	3.7	1.4	0.0	5.7	0.0	0.0	2.2	0.0	0.0
Prop In Lane	0.04		1.00	1.00		0.00	0.26		0.19	0.16		0.03
Lane Grp Cap(c), veh/h	1160	0	872	722	1079	0	482	0	0	513	0	0
V/C Ratio(X)	0.21	0.00	0.06	0.07	0.13	0.00	0.50	0.00	0.00	0.22	0.00	0.00
Avail Cap(c_a), veh/h	1206	0	910	749	1126	0	874	0	0	940	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.4	0.0	3.9	5.3	4.1	0.0	14.7	0.0	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.1	0.0	0.8	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	0.0	0.2	0.3	0.7	0.0	2.7	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	4.5	0.0	4.0	5.3	4.2	0.0	15.5	0.0	0.0	13.7	0.0	0.0
LnGrp LOS	A		A	A	A		B			B		
Approach Vol, veh/h		295			182			242			115	
Approach Delay, s/veh		4.4			4.5			15.5			13.7	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.1		28.9		14.1		28.9				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0				
Max Q Clear Time (g_c+I1), s		7.7		4.8		4.2		5.7				
Green Ext Time (p_c), s		1.8		2.7		2.1		2.7				
Intersection Summary												
HCM 2010 Ctrl Delay			8.9									
HCM 2010 LOS			A									



















HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	236	19	27	135	7	3	293	28	88	261	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.95	1.00		0.89	1.00		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1860	1900	1900	1831	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	26	251	20	29	144	7	3	312	30	94	278	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	123	459	35	147	438	19	7	566	426	146	739	535
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.00	0.32	0.32	0.08	0.40	0.40
Sat Flow, veh/h	76	1588	120	136	1517	67	1601	1776	1335	1774	1863	1348
Grp Volume(v), veh/h	297	0	0	180	0	0	3	312	30	94	278	30
Grp Sat Flow(s),veh/h/ln	1785	0	0	1720	0	0	1601	1776	1335	1774	1863	1348
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.6	0.6	2.0	4.1	0.5
Cycle Q Clear(g_c), s	5.4	0.0	0.0	3.0	0.0	0.0	0.1	5.6	0.6	2.0	4.1	0.5
Prop In Lane	0.09		0.07	0.16		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	617	0	0	605	0	0	7	566	426	146	739	535
V/C Ratio(X)	0.48	0.00	0.00	0.30	0.00	0.00	0.46	0.55	0.07	0.64	0.38	0.06
Avail Cap(c_a), veh/h	1285	0	0	1230	0	0	662	1422	1069	733	1492	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	0.0	10.9	0.0	0.0	19.2	10.9	9.2	17.2	8.3	7.2
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.0	0.0	42.5	0.8	0.1	4.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.7	0.0	0.0	1.5	0.0	0.0	0.1	2.8	0.2	1.2	2.2	0.2
LnGrp Delay(d),s/veh	12.3	0.0	0.0	11.1	0.0	0.0	61.7	11.7	9.3	21.9	8.6	7.2
LnGrp LOS	B			B			E	B	A	C	A	A
Approach Vol, veh/h		297			180			345			402	
Approach Delay, s/veh		12.3			11.1			12.0			11.6	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	16.3		15.2	4.2	19.4		15.2				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	16.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+I1), s	4.0	7.6		7.4	2.1	6.1		5.0				
Green Ext Time (p_c), s	0.2	4.2		2.9	0.0	4.2		3.1				
Intersection Summary												
HCM 2010 Ctrl Delay				11.8								
HCM 2010 LOS				B								



























HCM 2010 Signalized Intersection Summary
49: Russell Blvd & Sycamore Ln

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	206	433	0	0	598	71	0	0	0	79	0	166
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.82	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	219	461	0	0	636	76	0	0	0	84	0	177
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	277	2111	0	0	1041	124	0	4	0	302	0	0
Arrive On Green	0.16	0.60	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.17	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	3196	369	0	-111765	0	1774	84	
Grp Volume(v), veh/h	219	461	0	0	362	350	0	0	0	84	17.3	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1703	0	1863	0	1774	B	
Q Serve(g_s), s	5.6	2.8	0.0	0.0	8.0	8.0	0.0	0.0	0.0	1.9		
Cycle Q Clear(g_c), s	5.6	2.8	0.0	0.0	8.0	8.0	0.0	0.0	0.0	1.9		
Prop In Lane	1.00		0.00	0.00		0.22	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	277	2111	0	0	594	572	0	4	0	302		
V/C Ratio(X)	0.79	0.22	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.28		
Avail Cap(c_a), veh/h	573	2278	0	0	1139	1096	0	757	0	721		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	19.0	4.4	0.0	0.0	13.0	13.0	0.0	0.0	0.0	16.9		
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	2.8	1.4	0.0	0.0	3.9	3.8	0.0	0.0	0.0	1.0		
LnGrp Delay(d),s/veh	20.9	4.4	0.0	0.0	13.3	13.4	0.0	0.0	0.0	17.3		
LnGrp LOS	C	A			B	B				B		
Approach Vol, veh/h		680			712			0				
Approach Delay, s/veh		9.7			13.4			0.0				
Approach LOS		A			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		32.8			12.2	20.6	14.0	0.0				
Change Period (Y+Rc), s		4.9			4.9	4.9	6.0	6.0				
Max Green Setting (Gmax), s		30.1			15.1	30.1	19.0	19.0				
Max Q Clear Time (g_c+I1), s		4.8			7.6	10.0	3.9	0.0				
Green Ext Time (p_c), s		4.2			0.2	4.0	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				11.9								
HCM 2010 LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	81	380	51	182	575	113	163	256	330	139	116	42
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.84	1.00		1.00	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	86	404	0	194	612	120	173	272	0	148	123	45
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	991	0	291	1070	400	217	798	0	189	505	163
Arrive On Green	0.06	0.28	0.00	0.08	0.30	0.30	0.12	0.23	0.00	0.11	0.21	0.21
Sat Flow, veh/h	1774	3632	0	3442	3539	1322	1774	3632	0	1774	2411	776
Grp Volume(v), veh/h	86	404	0	194	612	120	173	272	0	148	86	82
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1322	1774	1770	0	1774	1770	1417
Q Serve(g_s), s	3.1	6.1	0.0	3.6	9.6	4.6	6.3	4.2	0.0	5.4	2.7	3.2
Cycle Q Clear(g_c), s	3.1	6.1	0.0	3.6	9.6	4.6	6.3	4.2	0.0	5.4	2.7	3.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.55
Lane Grp Cap(c), veh/h	111	991	0	291	1070	400	217	798	0	189	371	297
V/C Ratio(X)	0.78	0.41	0.00	0.67	0.57	0.30	0.80	0.34	0.00	0.78	0.23	0.28
Avail Cap(c_a), veh/h	269	1611	0	522	1611	602	538	805	0	538	403	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	19.3	0.0	29.3	19.4	17.6	28.1	21.4	0.0	28.7	21.6	21.9
Incr Delay (d2), s/veh	4.4	0.1	0.0	1.0	0.2	0.2	2.5	0.1	0.0	2.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.7	3.0	0.0	1.7	4.7	1.7	3.2	2.1	0.0	2.8	1.3	1.3
LnGrp Delay(d),s/veh	34.8	19.4	0.0	30.2	19.6	17.8	30.7	21.5	0.0	31.4	21.8	22.1
LnGrp LOS	C	B		C	B	B	C	C		C	C	C
Approach Vol, veh/h		490			926			445			316	
Approach Delay, s/veh		22.1			21.6			25.1			26.4	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.6	23.5	13.1	18.8	9.1	24.9	12.0	19.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	10.0	30.0	20.0	15.0	10.0	30.0	20.0	15.0				
Max Q Clear Time (g_c+I1), s	5.6	8.1	8.3	5.2	5.1	11.6	7.4	6.2				
Green Ext Time (p_c), s	0.1	5.2	0.2	1.4	0.0	5.0	0.1	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			23.1									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	809	60	2	24	909	0	166
Conflicting Peds, #/hr	0	31	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	-	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	-	0	1	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	861	64	2	26	967	0	177






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1101
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.44	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.52	2.22
Pot Cap-1 Maneuver	-	286	735
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	609	609
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	547	-	-	609	-
HCM Lane V/C Ratio	0.323	-	-	0.045	-
HCM Control Delay (s)	14.7	-	-	11.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-




















HCM 2010 Signalized Intersection Summary
 46: Howard Way/College Park & Russell Blvd

Existing Conditions + Nishi Alt. 1
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	775	77	74	683	18	173	3	151	7	0	11
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.94	1.00		0.91	1.00		0.55
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	17	824	82	79	727	19	184	3	161	7	0	12
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1190	118	111	1463	38	347	5	276	61	64	30
Arrive On Green	0.02	0.37	0.37	0.06	0.42	0.42	0.20	0.20	0.20	0.03	0.00	0.03
Sat Flow, veh/h	1774	3219	320	1774	3517	92	1774	26	1413	1774	1863	878
Grp Volume(v), veh/h	17	453	453	79	366	380	184	0	164	7	0	12
Grp Sat Flow(s),veh/h/ln	1774	1770	1770	1774	1770	1840	1774	0	1440	1774	1863	878
Q Serve(g_s), s	0.5	12.3	12.3	2.5	8.6	8.6	5.3	0.0	5.9	0.2	0.0	0.8
Cycle Q Clear(g_c), s	0.5	12.3	12.3	2.5	8.6	8.6	5.3	0.0	5.9	0.2	0.0	0.8
Prop In Lane	1.00		0.18	1.00		0.05	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	29	654	655	111	736	765	347	0	281	61	64	30
V/C Ratio(X)	0.58	0.69	0.69	0.71	0.50	0.50	0.53	0.00	0.58	0.12	0.00	0.40
Avail Cap(c_a), veh/h	250	934	935	250	934	971	962	0	780	906	951	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	15.2	15.2	26.1	12.2	12.2	20.5	0.0	20.8	26.6	0.0	26.9
Incr Delay (d2), s/veh	33.1	0.5	0.5	3.1	0.2	0.2	0.5	0.0	0.7	0.3	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	6.0	6.0	1.3	4.2	4.4	2.6	0.0	2.4	0.1	0.0	0.2
LnGrp Delay(d),s/veh	60.8	15.7	15.7	29.2	12.4	12.4	21.0	0.0	21.5	26.9	0.0	30.0
LnGrp LOS	E	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		923			825			348			19	
Approach Delay, s/veh		16.5			14.0			21.2			28.9	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	26.0		7.9	4.9	28.6		15.3				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		4.2				
Max Green Setting (Gmax), s	8.0	30.0		29.0	8.0	30.0		30.8				
Max Q Clear Time (g_c+I1), s	4.5	14.3		2.8	2.5	10.6		7.9				
Green Ext Time (p_c), s	0.0	6.7		0.0	0.0	7.3		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			16.4									
HCM 2010 LOS			B									

























HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	923	0	0	619	12	143	51	33	12	0	15
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	34	982	0	0	659	13	152	54	35	13	0	16
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	513	2001	0	0	2004	40	418	242	157	0	0	0
Arrive On Green	0.57	0.57	0.00	0.00	0.57	0.57	0.24	0.24	0.24	0.00	0.00	0.00
Sat Flow, veh/h	760	3632	0	0	3638	70	1774	1028	666		0	
Grp Volume(v), veh/h	34	982	0	0	329	343	152	0	89		0.0	
Grp Sat Flow(s),veh/h/ln	760	1770	0	0	1770	1846	1774	0	1694			
Q Serve(g_s), s	1.1	7.5	0.0	0.0	4.5	4.5	3.2	0.0	1.9			
Cycle Q Clear(g_c), s	5.6	7.5	0.0	0.0	4.5	4.5	3.2	0.0	1.9			
Prop In Lane	1.00		0.00	0.00		0.04	1.00		0.39			
Lane Grp Cap(c), veh/h	513	2001	0	0	1001	1043	418	0	399			
V/C Ratio(X)	0.07	0.49	0.00	0.00	0.33	0.33	0.36	0.00	0.22			
Avail Cap(c_a), veh/h	857	3599	0	0	1800	1877	784	0	749			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.7	5.9	0.0	0.0	5.2	5.2	14.5	0.0	13.9			
Incr Delay (d2), s/veh	0.1	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	0.2	3.6	0.0	0.0	2.2	2.2	1.6	0.0	0.9			
LnGrp Delay(d),s/veh	6.8	6.1	0.0	0.0	5.4	5.4	14.6	0.0	14.0			
LnGrp LOS	A	A			A	A	B		B			
Approach Vol, veh/h		1016			672			241				
Approach Delay, s/veh		6.1			5.4			14.4				
Approach LOS		A			A			B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		29.6				29.6		15.7				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		9.5				6.5		5.2				
Green Ext Time (p_c), s		16.0				16.5		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			6.9									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												





















HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Volume (veh/h)	28	483	418	48	428	94	161	117	74	38	143	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.91	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	30	514	0	51	455	0	171	124	79	40	152	18
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	1179	0	110	1252	0	226	470	365	92	285	34
Arrive On Green	0.04	0.33	0.00	0.06	0.35	0.00	0.13	0.25	0.25	0.05	0.18	0.18
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1448	1774	1609	191
Grp Volume(v), veh/h	30	514	0	51	455	0	171	124	79	40	0	170
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1448	1774	0	1799
Q Serve(g_s), s	0.8	5.3	0.0	1.3	4.4	0.0	4.3	2.5	2.0	1.0	0.0	4.0
Cycle Q Clear(g_c), s	0.8	5.3	0.0	1.3	4.4	0.0	4.3	2.5	2.0	1.0	0.0	4.0
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	74	1179	0	110	1252	0	226	470	365	92	0	319
V/C Ratio(X)	0.41	0.44	0.00	0.46	0.36	0.00	0.76	0.26	0.22	0.43	0.00	0.53
Avail Cap(c_a), veh/h	438	2771	0	438	2771	0	628	659	513	628	0	637
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	12.1	0.0	21.1	11.2	0.0	19.6	14.0	13.8	21.4	0.0	17.4
Incr Delay (d2), s/veh	1.3	0.1	0.0	1.1	0.1	0.0	5.1	0.1	0.1	1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	2.6	0.0	0.7	2.2	0.0	2.4	1.3	0.8	0.5	0.0	2.0
LnGrp Delay(d),s/veh	23.1	12.2	0.0	22.2	11.2	0.0	24.8	14.1	13.9	22.6	0.0	17.9
LnGrp LOS	C	B		C	B		C	B	B	C		B
Approach Vol, veh/h		544			506			374			210	
Approach Delay, s/veh		12.8			12.3			18.9			18.8	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	19.0	9.4	11.8	5.4	20.0	5.9	15.3				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	11.5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+I1), s	3.3	7.3	6.3	6.0	2.8	6.4	3.0	4.5				
Green Ext Time (p_c), s	0.0	4.9	0.3	1.0	0.0	4.9	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.8									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												






















HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	63	436	80	45	407	6	69	153	51	50	193	56
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.86	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1789	1900	1863	1845	1900	1776	1797	1900	1863	1863	1900
Adj Flow Rate, veh/h	67	464	85	48	433	6	73	163	54	53	205	60
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	83	739	135	118	944	13	92	256	85	72	253	74
Arrive On Green	0.05	0.51	0.51	0.13	1.00	1.00	0.05	0.21	0.21	0.04	0.19	0.19
Sat Flow, veh/h	1533	1455	266	1774	1814	25	1691	1236	409	1774	1310	383
Grp Volume(v), veh/h	67	0	549	48	0	439	73	0	217	53	0	265
Grp Sat Flow(s),veh/h/ln	1533	0	1721	1774	0	1839	1691	0	1645	1774	0	1693
Q Serve(g_s), s	3.9	0.0	20.7	2.2	0.0	0.0	3.8	0.0	10.8	2.7	0.0	13.5
Cycle Q Clear(g_c), s	3.9	0.0	20.7	2.2	0.0	0.0	3.8	0.0	10.8	2.7	0.0	13.5
Prop In Lane	1.00		0.15	1.00		0.01	1.00		0.25	1.00		0.23
Lane Grp Cap(c), veh/h	83	0	874	118	0	957	92	0	340	72	0	327
V/C Ratio(X)	0.81	0.00	0.63	0.41	0.00	0.46	0.79	0.00	0.64	0.73	0.00	0.81
Avail Cap(c_a), veh/h	119	0	874	118	0	957	94	0	347	99	0	357
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.00	0.74	0.86	0.00	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	0.0	16.0	37.4	0.0	0.0	42.1	0.0	32.6	42.7	0.0	34.7
Incr Delay (d2), s/veh	11.5	0.0	2.5	0.7	0.0	1.4	32.7	0.0	2.8	9.5	0.0	10.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.9	0.0	10.4	1.1	0.0	0.4	2.6	0.0	5.2	1.5	0.0	7.3
LnGrp Delay(d),s/veh	53.6	0.0	18.5	38.1	0.0	1.4	74.8	0.0	35.4	52.1	0.0	45.6
LnGrp LOS	D		B	D		A	E		D	D		D
Approach Vol, veh/h		616			487			290			318	
Approach Delay, s/veh		22.4			5.0			45.3			46.7	
Approach LOS		C			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	49.7	8.9	21.4	8.9	50.8	7.7	22.6				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	44.0	5.0	19.0	7.0	43.0	5.0	19.0				
Max Q Clear Time (g_c+I1), s	4.2	22.7	5.8	15.5	5.9	2.0	4.7	12.8				
Green Ext Time (p_c), s	0.0	9.3	0.0	0.8	0.0	12.2	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			25.8									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	451	45	55	395	24	32	126	46	52	48	31
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.91	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1794	1900	1863	1855	1900	1681	1780	1900	1827	1622	1900
Adj Flow Rate, veh/h	44	480	48	59	420	26	34	134	49	55	51	33
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	771	77	128	833	52	98	275	101	106	192	124
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1595	159	1774	1724	107	1601	1207	441	1740	841	544
Grp Volume(v), veh/h	44	0	528	59	0	446	34	0	183	55	0	84
Grp Sat Flow(s),veh/h/ln	1533	0	1754	1774	0	1831	1601	0	1649	1740	0	1385
Q Serve(g_s), s	2.3	0.0	2.3	2.9	0.0	15.0	1.8	0.0	8.7	2.8	0.0	4.5
Cycle Q Clear(g_c), s	2.3	0.0	2.3	2.9	0.0	15.0	1.8	0.0	8.7	2.8	0.0	4.5
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.27	1.00		0.39
Lane Grp Cap(c), veh/h	111	0	848	128	0	885	98	0	375	106	0	315
V/C Ratio(X)	0.40	0.00	0.62	0.46	0.00	0.50	0.35	0.00	0.49	0.52	0.00	0.27
Avail Cap(c_a), veh/h	111	0	848	128	0	885	98	0	375	106	0	315
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	0.8	40.1	0.0	15.9	40.5	0.0	30.2	41.0	0.0	28.6
Incr Delay (d2), s/veh	10.3	0.0	3.4	11.5	0.0	2.0	9.5	0.0	4.5	16.8	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.3	0.0	1.4	1.8	0.0	8.1	1.1	0.0	4.4	1.8	0.0	1.9
LnGrp Delay(d),s/veh	47.0	0.0	4.2	51.5	0.0	17.9	50.0	0.0	34.7	57.8	0.0	30.6
LnGrp LOS	D		A	D		B	D		C	E		C
Approach Vol, veh/h		572			505			217				139
Approach Delay, s/veh		7.5			21.9			37.1				41.4
Approach LOS		A			C			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	6.5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+I1), s	4.9	4.3	3.8	6.5	4.3	17.0	4.8	10.7				
Green Ext Time (p_c), s	0.0	11.7	0.0	0.9	0.0	10.2	0.0	0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			20.3									
HCM 2010 LOS			C									

Intersection												
Intersection Delay, s/veh	11.2											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	81	22	0	26	52	39	0	14	167	45
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	86	23	0	28	55	41	0	15	178	48
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.5	9.9	11.2
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	30%	22%	100%	0%
Vol Thru, %	0%	79%	55%	44%	0%	86%
Vol Right, %	0%	21%	15%	33%	0%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	212	148	117	25	261
LT Vol	14	0	45	26	25	0
Through Vol	0	167	81	52	0	225
RT Vol	0	45	22	39	0	36
Lane Flow Rate	15	226	157	124	27	278
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.026	0.35	0.245	0.192	0.046	0.429
Departure Headway (Hd)	6.251	5.594	5.601	5.543	6.168	5.565
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	643	641	647	581	647
Service Time	3.984	3.327	3.638	3.582	3.899	3.295
HCM Lane V/C Ratio	0.026	0.351	0.245	0.192	0.046	0.43
HCM Control Delay	9.2	11.3	10.5	9.9	9.2	12.4
HCM Lane LOS	A	B	B	A	A	B
HCM 95th-tile Q	0.1	1.6	1	0.7	0.1	2.2

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	25	225	36
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	27	239	38
Number of Lanes	0	1	1	0





















Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	12.1
HCM LOS	B

Lane



















HCM 2010 Signalized Intersection Summary
95: La Rue Rd & Orchard Rd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	5	27	43	9	81	28	588	56	33	257	62
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.70	0.99		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	5	29	46	10	86	30	626	60	35	273	66
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	5	748	140	18	778	420	1088	104	278	948	220
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	27	11	1504	26	37	1564	1035	3130	298	746	2728	633
Grp Volume(v), veh/h	86	0	29	56	0	86	30	352	334	35	173	166
Grp Sat Flow(s),veh/h/ln	38	0	1504	63	0	1564	1035	1770	1659	746	1770	1591
Q Serve(g_s), s	0.6	0.0	0.5	0.6	0.0	1.5	1.1	8.4	8.5	2.1	3.6	3.9
Cycle Q Clear(g_c), s	25.6	0.0	0.5	25.6	0.0	1.5	5.1	8.4	8.5	10.4	3.6	3.9
Prop In Lane	0.94		1.00	0.82		1.00	1.00		0.18	1.00		0.40
Lane Grp Cap(c), veh/h	154	0	748	159	0	778	420	615	576	278	615	553
V/C Ratio(X)	0.56	0.00	0.04	0.35	0.00	0.11	0.07	0.57	0.58	0.13	0.28	0.30
Avail Cap(c_a), veh/h	164	0	759	169	0	789	583	893	837	395	893	803
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	0.0	6.6	18.6	0.0	6.9	14.1	13.7	13.7	17.9	12.2	12.3
Incr Delay (d2), s/veh	3.7	0.0	0.0	1.3	0.0	0.1	0.1	0.8	0.9	0.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	0.0	0.2	0.8	0.0	0.7	0.3	4.2	3.9	0.4	1.8	1.8
LnGrp Delay(d),s/veh	28.1	0.0	6.7	19.9	0.0	7.0	14.2	14.5	14.7	18.1	12.4	12.6
LnGrp LOS	C		A	B		A	B	B	B	B	B	B
Approach Vol, veh/h		115			142			716			374	
Approach Delay, s/veh		22.7			12.1			14.6			13.0	
Approach LOS		C			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.1		29.8		22.1		29.8				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		10.5		27.6		12.4		27.6				
Green Ext Time (p_c), s		6.3		0.0		5.8		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			14.6									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	3	0	27	11	29	7	326	45	144	478	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.40	1.00		0.87	1.00		0.77
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	3	0	29	12	31	7	347	48	153	509	21
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	124	0	31	13	33	13	592	82	193	839	35
Arrive On Green	0.14	0.14	0.00	0.08	0.08	0.08	0.01	0.38	0.38	0.11	0.48	0.48
Sat Flow, veh/h	909	909	0	405	168	433	1774	1569	217	1774	1752	72
Grp Volume(v), veh/h	6	0	0	72	0	0	7	0	395	153	0	530
Grp Sat Flow(s),veh/h/ln	1817	0	0	1006	0	0	1774	0	1786	1774	0	1825
Q Serve(g_s), s	0.2	0.0	0.0	3.8	0.0	0.0	0.2	0.0	9.4	4.5	0.0	11.3
Cycle Q Clear(g_c), s	0.2	0.0	0.0	3.8	0.0	0.0	0.2	0.0	9.4	4.5	0.0	11.3
Prop In Lane	0.50		0.00	0.40		0.43	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	247	0	0	77	0	0	13	0	674	193	0	874
V/C Ratio(X)	0.02	0.00	0.00	0.93	0.00	0.00	0.53	0.00	0.59	0.79	0.00	0.61
Avail Cap(c_a), veh/h	547	0	0	303	0	0	200	0	873	200	0	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	0.0	24.4	0.0	0.0	26.3	0.0	13.2	23.1	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	53.5	0.0	0.0	57.2	0.0	1.7	21.4	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	0.0	2.2	0.0	0.0	0.3	0.0	4.9	3.3	0.0	6.0
LnGrp Delay(d),s/veh	20.0	0.0	0.0	77.9	0.0	0.0	83.5	0.0	15.0	44.6	0.0	11.9
LnGrp LOS	B			E			F		B	D		B
Approach Vol, veh/h		6			72			402			683	
Approach Delay, s/veh		20.0			77.9			16.2			19.3	
Approach LOS		B			E			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	24.1		11.2	4.4	29.5		8.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	26.0		16.0	6.0	26.0		16.0				
Max Q Clear Time (g_c+I1), s	6.5	11.4		2.2	2.2	13.3		5.8				
Green Ext Time (p_c), s	0.0	8.7		0.0	0.0	7.8		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			21.8									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

User approved volume balancing among the lanes for turning movement.

Intersection												
Intersection Delay, s/veh	11.5											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	125	3	0	34	125	28	0	22	135	106
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	133	3	0	36	133	30	0	23	144	113
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11	11.2	11.8
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	22%	18%	12%
Vol Thru, %	51%	76%	67%	68%
Vol Right, %	40%	2%	15%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	164	187	241
LT Vol	22	36	34	30
Through Vol	135	125	125	164
RT Vol	106	3	28	47
Lane Flow Rate	280	174	199	256
Geometry Grp	1	1	1	1
Degree of Util (X)	0.404	0.279	0.311	0.382
Departure Headway (Hd)	5.202	5.759	5.63	5.362
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	691	621	637	669
Service Time	3.251	3.814	3.684	3.412
HCM Lane V/C Ratio	0.405	0.28	0.312	0.383
HCM Control Delay	11.8	11	11.2	11.7
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2	1.1	1.3	1.8

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	164	47
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	174	50
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.7
HCM LOS	B

Lane

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	15	12	25	1	13	8	77	10	280	59	99	388	19
Conflicting Peds, #/hr	0	0	70	0	0	0	36	0	0	28	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	13	27	1	14	9	82	11	298	63	105	413	20

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1136	1122	521	0	1110	1101	374	503	0	0	397	0	0
Stage 1	704	704	-	0	387	387	-	-	-	-	-	-	-
Stage 2	432	418	-	0	723	714	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	179	206	555	0	187	212	672	1061	-	-	1162	-	-
Stage 1	428	440	-	0	637	610	-	-	-	-	-	-	-
Stage 2	602	591	-	0	417	435	-	-	-	-	-	-	-
Platoon blocked, %				-				-	-	-	-	-	-
Mov Cap-1 Maneuver	130	169	510	0	146	174	647	1036	-	-	1153	-	-
Mov Cap-2 Maneuver	130	169	-	0	146	174	-	-	-	-	-	-	-
Stage 1	399	377	-	0	611	585	-	-	-	-	-	-	-
Stage 2	509	567	-	0	339	372	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.6	17.7	0.2	1.7
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1036	-	-	221	386	1153	-	-
HCM Lane V/C Ratio	0.01	-	-	0.25	0.27	0.091	-	-
HCM Control Delay (s)	8.5	-	-	26.6	17.7	8.4	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1	1.1	0.3	-	-

Intersection												
Intersection Delay, s/veh	9.1											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	49	51	17	0	0	101	25	0	16	154	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	52	54	18	0	0	107	27	0	17	164	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9	8.9	9.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	42%	0%	25%
Vol Thru, %	91%	44%	80%	58%
Vol Right, %	0%	15%	20%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	170	117	126	145
LT Vol	16	49	0	36
Through Vol	154	51	101	84
RT Vol	0	17	25	25
Lane Flow Rate	181	124	134	154
Geometry Grp	1	1	1	1
Degree of Util (X)	0.24	0.169	0.178	0.203
Departure Headway (Hd)	4.768	4.899	4.774	4.73
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	751	728	748	756
Service Time	2.818	2.956	2.83	2.782
HCM Lane V/C Ratio	0.241	0.17	0.179	0.204
HCM Control Delay	9.3	9	8.9	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.6	0.6	0.8

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	36	84	25
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	38	89	27
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	2	1	196	1	37	2	163	232	0	0	0
Conflicting Peds, #/hr	0	0	117	0	0	65	0	0	15	0	0	63
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	1	209	1	39	2	173	247	0	0	0

Major/Minor	Minor2			Major2			Minor1		
Conflicting Flow All	657	570	138	15	0	0	571	589	80
Stage 1	555	555	-	-	-	-	15	15	-
Stage 2	102	15	-	-	-	-	556	574	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	430	431	910	-	-	-	482	421	-
Stage 1	575	513	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	574	503	-
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuver	350	0	821	-	-	-	476	0	-
Mov Cap-2 Maneuver	350	0	-	-	-	-	476	0	-
Stage 1	519	0	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	574	0	-

Approach	EB	WB	NB
HCM Control Delay, s	9.4		
HCM LOS	A		-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	476	-	821	-	-	-
HCM Lane V/C Ratio	0.369	-	0.004	-	-	-
HCM Control Delay (s)	16.9	-	9.4	-	-	-
HCM Lane LOS	C	-	A	-	-	-
HCM 95th %tile Q(veh)	1.7	-	0	-	-	-





















Intersection									
Intersection Delay, s/veh	12.6								
Intersection LOS	B								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	179	118	0	99	167	0	265	149
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	190	126	0	105	178	0	282	159
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	12.3	10.6	14.2
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	179	118	99	167	265	149
LT Vol	179	0	0	0	265	0
Through Vol	0	118	99	0	0	0
RT Vol	0	0	0	167	0	149
Lane Flow Rate	190	126	105	178	282	159
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.359	0.219	0.186	0.279	0.524	0.241
Departure Headway (Hd)	6.786	6.277	6.374	5.661	6.695	5.484
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	529	571	562	634	538	655
Service Time	4.527	4.018	4.118	3.405	4.432	3.22
HCM Lane V/C Ratio	0.359	0.221	0.187	0.281	0.524	0.243
HCM Control Delay	13.3	10.8	10.6	10.6	16.6	10
HCM Lane LOS	B	B	B	B	C	A
HCM 95th-tile Q	1.6	0.8	0.7	1.1	3	0.9

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	293	64	73	209	70	33	35	73	92	35	21
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.87	1.00		0.92	1.00		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	13	312	68	78	222	74	35	37	78	98	37	22
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	464	101	120	488	163	113	82	477	131	30	472
Arrive On Green	0.02	0.32	0.32	0.07	0.37	0.37	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	1440	314	1774	1307	436	0	245	1417	0	88	1402
Grp Volume(v), veh/h	13	0	380	78	0	296	72	0	78	135	0	22
Grp Sat Flow(s),veh/h/ln	1774	0	1754	1774	0	1743	245	0	1417	88	0	1402
Q Serve(g_s), s	0.3	0.0	8.9	2.0	0.0	6.1	0.0	0.0	1.8	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.3	0.0	8.9	2.0	0.0	6.1	16.0	0.0	1.8	16.0	0.0	0.5
Prop In Lane	1.00		0.18	1.00		0.25	0.49		1.00	0.73		1.00
Lane Grp Cap(c), veh/h	29	0	565	120	0	650	195	0	477	160	0	472
V/C Ratio(X)	0.44	0.00	0.67	0.65	0.00	0.46	0.37	0.00	0.16	0.84	0.00	0.05
Avail Cap(c_a), veh/h	411	0	1107	411	0	1100	195	0	477	160	0	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	13.9	21.6	0.0	11.2	12.9	0.0	11.1	20.3	0.0	10.6
Incr Delay (d2), s/veh	3.8	0.0	0.5	2.2	0.0	0.2	0.4	0.0	0.1	29.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	4.3	1.1	0.0	2.9	0.7	0.0	0.7	3.1	0.0	0.2
LnGrp Delay(d),s/veh	27.0	0.0	14.5	23.8	0.0	11.4	13.3	0.0	11.1	50.2	0.0	10.6
LnGrp LOS	C		B	C		B	B		B	D		B
Approach Vol, veh/h		393			374			150			157	
Approach Delay, s/veh		14.9			14.0			12.2			44.7	
Approach LOS		B			B			B			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	20.3		20.0	4.8	22.7		20.0				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	11.0	30.0		16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+I1), s	4.0	10.9		18.0	2.3	8.1		18.0				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.0	3.1		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			18.6									
HCM 2010 LOS			B									

























Intersection									
Intersection Delay, s/veh	9.9								
Intersection LOS	A								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	139	202	0	109	11	0	13	95
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	148	215	0	116	12	0	14	101
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	11	8.4	8.3
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	41%	0%	12%
Vol Thru, %	59%	91%	0%
Vol Right, %	0%	9%	88%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	341	120	108
LT Vol	139	0	13
Through Vol	202	109	0
RT Vol	0	11	95
Lane Flow Rate	363	128	115
Geometry Grp	1	1	1
Degree of Util (X)	0.446	0.161	0.145
Departure Headway (Hd)	4.422	4.534	4.532
Convergence, Y/N	Yes	Yes	Yes
Cap	816	790	790
Service Time	2.446	2.564	2.562
HCM Lane V/C Ratio	0.445	0.162	0.146
HCM Control Delay	11	8.4	8.3
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2.3	0.6	0.5

HCM 2010 Signalized Intersection Summary
94: La Rue Rd & Hutchison Dr

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 			 	
Volume (veh/h)	224	108	66	18	312	174	105	259	9	90	78	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.96	0.99		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	238	115	0	19	332	185	112	276	10	96	83	164
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	495	1730	0	763	910	742	439	1170	42	459	611	486
Arrive On Green	0.49	0.49	0.00	0.49	0.49	0.49	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	874	3632	0	1268	1863	1519	1121	3566	129	1084	1863	1482
Grp Volume(v), veh/h	238	115	0	19	332	185	112	144	142	96	83	164
Grp Sat Flow(s),veh/h/ln	874	1770	0	1268	1863	1519	1121	1863	1832	1084	1863	1482
Q Serve(g_s), s	10.2	0.7	0.0	0.4	4.8	3.1	3.7	2.5	2.5	3.1	1.4	3.6
Cycle Q Clear(g_c), s	15.0	0.7	0.0	1.1	4.8	3.1	7.3	2.5	2.5	5.6	1.4	3.6
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	495	1730	0	763	910	742	439	611	601	459	611	486
V/C Ratio(X)	0.48	0.07	0.00	0.02	0.36	0.25	0.26	0.24	0.24	0.21	0.14	0.34
Avail Cap(c_a), veh/h	589	2108	0	899	1110	905	739	1110	1091	749	1110	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.6	5.9	0.0	6.2	6.9	6.5	13.8	10.7	10.7	12.7	10.3	11.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	0.4	0.0	0.1	2.6	1.3	1.2	1.3	1.3	0.9	0.7	1.5
LnGrp Delay(d),s/veh	12.3	5.9	0.0	6.2	7.2	6.7	14.1	10.9	10.9	12.9	10.4	11.5
LnGrp LOS	B	A		A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		353			536			398			343	
Approach Delay, s/veh		10.2			7.0			11.8			11.6	
Approach LOS		B			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.3		25.3		18.3		25.3				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		9.3		17.0		7.6		6.8				
Green Ext Time (p_c), s		3.9		3.5		4.0		5.1				
Intersection Summary												
HCM 2010 Ctrl Delay			9.8									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												

Intersection

Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	31	0	17	0	23	3	10	0	5	365	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	33	0	18	0	24	3	11	0	5	388	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.8	8.8	12
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	65%	64%	4%	0%
Vol Thru, %	97%	0%	8%	96%	0%
Vol Right, %	2%	35%	28%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	376	48	36	168	35
LT Vol	5	31	23	6	0
Through Vol	365	0	3	162	0
RT Vol	6	17	10	0	35
Lane Flow Rate	400	51	38	179	37
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.501	0.075	0.057	0.253	0.045
Departure Headway (Hd)	4.509	5.301	5.367	5.093	4.37
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	800	673	664	704	818
Service Time	2.538	3.357	3.426	2.828	2.105
HCM Lane V/C Ratio	0.5	0.076	0.057	0.254	0.045
HCM Control Delay	12	8.8	8.8	9.6	7.3
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2.8	0.2	0.2	1	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	6	161	35
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	6	171	37
Number of Lanes	0	0	1	1























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9.2
HCM LOS	A

Lane
























HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	554	61	29	417	28	57	3	23	0	4	37
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.95	1.00		0.54
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	48	589	65	31	444	30	61	3	24	0	4	39
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	820	91	62	907	739	100	37	295	3	154	71
Arrive On Green	0.05	0.50	0.50	0.03	0.49	0.49	0.06	0.22	0.22	0.00	0.08	0.08
Sat Flow, veh/h	1774	1640	181	1774	1863	1517	1774	171	1370	1774	1863	855
Grp Volume(v), veh/h	48	0	654	31	444	30	61	0	27	0	4	39
Grp Sat Flow(s),veh/h/ln	1774	0	1821	1774	1863	1517	1774	0	1541	1774	1863	855
Q Serve(g_s), s	1.4	0.0	14.6	0.9	8.4	0.5	1.8	0.0	0.7	0.0	0.1	2.3
Cycle Q Clear(g_c), s	1.4	0.0	14.6	0.9	8.4	0.5	1.8	0.0	0.7	0.0	0.1	2.3
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	85	0	911	62	907	739	100	0	332	3	154	71
V/C Ratio(X)	0.56	0.00	0.72	0.50	0.49	0.04	0.61	0.00	0.08	0.00	0.03	0.55
Avail Cap(c_a), veh/h	374	0	1048	272	1072	873	272	0	332	272	286	131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	10.2	24.7	9.0	7.0	24.0	0.0	16.3	0.0	22.0	23.0
Incr Delay (d2), s/veh	5.7	0.0	2.9	6.2	0.9	0.0	5.9	0.0	0.2	0.0	0.1	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.8	0.0	8.0	0.5	4.4	0.2	1.0	0.0	0.3	0.0	0.1	0.7
LnGrp Delay(d),s/veh	30.0	0.0	13.1	31.0	9.9	7.0	30.0	0.0	16.5	0.0	22.1	29.6
LnGrp LOS	C		B	C	A	A	C		B		C	C
Approach Vol, veh/h		702			505			88			43	
Approach Delay, s/veh		14.2			11.0			25.9			28.9	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	31.1	6.9	8.3	6.5	30.4	0.0	15.2				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	2.9	16.6	3.8	4.3	3.4	10.4	0.0	2.7				
Green Ext Time (p_c), s	0.0	9.5	0.0	0.1	0.0	12.7	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.3									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions + Nishi Alt. 1
PM Peak Hour

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	2	76	358	72	33	312	37	40	15	49	23	16
Number		5	2	12	1	6	16	3	8	18	7	4
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00		0.92	1.00		0.97	1.00		0.96	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h		81	381	77	35	332	39	43	16	52	24	17
Adj No. of Lanes		1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		132	687	535	71	624	513	84	275	226	52	25
Arrive On Green		0.07	0.37	0.37	0.04	0.33	0.33	0.05	0.15	0.15	0.03	0.13
Sat Flow, veh/h		1774	1863	1450	1774	1863	1532	1774	1863	1528	1774	196
Grp Volume(v), veh/h		81	381	77	35	332	39	43	16	52	24	0
Grp Sat Flow(s),veh/h/ln		1774	1863	1450	1774	1863	1532	1774	1863	1528	1774	0
Q Serve(g_s), s		1.8	6.5	1.4	0.8	5.7	0.7	0.9	0.3	1.2	0.5	0.0
Cycle Q Clear(g_c), s		1.8	6.5	1.4	0.8	5.7	0.7	0.9	0.3	1.2	0.5	0.0
Prop In Lane		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h		132	687	535	71	624	513	84	275	226	52	0
V/C Ratio(X)		0.61	0.55	0.14	0.49	0.53	0.08	0.51	0.06	0.23	0.46	0.00
Avail Cap(c_a), veh/h		267	1426	1110	267	1426	1172	267	280	230	267	0
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh		17.9	10.0	8.4	18.7	10.7	9.0	18.5	14.6	15.0	19.0	0.0
Incr Delay (d2), s/veh		1.7	0.3	0.0	1.9	0.3	0.0	1.8	0.0	0.2	2.4	0.0
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln		0.9	3.3	0.6	0.4	3.0	0.3	0.5	0.2	0.5	0.3	0.0
LnGrp Delay(d),s/veh		19.6	10.2	8.4	20.6	11.0	9.1	20.3	14.6	15.2	21.4	0.0
LnGrp LOS		B	B	A	C	B	A	C	B	B	C	
Approach Vol, veh/h			539			406			111			114
Approach Delay, s/veh			11.4			11.6			17.1			22.2
Approach LOS			B			B			B			C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.6	19.2	5.9	9.2	7.0	17.8	5.2	9.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	6.0	30.5	6.0	6.0	6.0	30.5	6.0	6.0				
Max Q Clear Time (g_c+I1), s	2.8	8.5	2.9	5.3	3.8	7.7	2.5	3.2				
Green Ext Time (p_c), s	0.0	3.3	0.0	0.0	0.0	3.4	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

























Movement	SBR
Lane Configurations	
Volume (veh/h)	69
Number	14
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.59
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	73
Adj No. of Lanes	0
Peak Hour Factor	0.94
Percent Heavy Veh, %	2
Cap, veh/h	109
Arrive On Green	0.13
Sat Flow, veh/h	840
Grp Volume(v), veh/h	90
Grp Sat Flow(s),veh/h/ln	1036
Q Serve(g_s), s	3.3
Cycle Q Clear(g_c), s	3.3
Prop In Lane	0.81
Lane Grp Cap(c), veh/h	134
V/C Ratio(X)	0.67
Avail Cap(c_a), veh/h	156
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	16.5
Incr Delay (d2), s/veh	5.8
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(-26165%),veh/ln	1.1
LnGrp Delay(d),s/veh	22.4
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	

Timer

User approved ignoring U-Turning movement.

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions + Nishi Alt. 1
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	232	143	144	152	182	4	103	88	208	3	82	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	247	152	0	162	194	0	110	94	0	3	87	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	392	333	211	534	239	163	427	363	7	264	224
Arrive On Green	0.18	0.21	0.00	0.12	0.15	0.00	0.09	0.23	0.00	0.00	0.14	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	247	152	0	162	194	0	110	94	0	3	87	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.9	2.6	0.0	3.2	1.8	0.0	2.2	1.5	0.0	0.1	1.5	0.0
Cycle Q Clear(g_c), s	4.9	2.6	0.0	3.2	1.8	0.0	2.2	1.5	0.0	0.1	1.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	317	392	333	211	534	239	163	427	363	7	264	224
V/C Ratio(X)	0.78	0.39	0.00	0.77	0.36	0.00	0.67	0.22	0.00	0.41	0.33	0.00
Avail Cap(c_a), veh/h	775	814	692	775	1159	519	387	712	605	533	712	605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	12.4	0.0	15.6	14.0	0.0	16.1	11.5	0.0	18.2	14.2	0.0
Incr Delay (d2), s/veh	1.6	0.2	0.0	2.2	0.2	0.0	1.8	0.1	0.0	13.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.5	1.3	0.0	1.7	0.9	0.0	1.2	0.8	0.0	0.1	0.8	0.0
LnGrp Delay(d),s/veh	15.9	12.7	0.0	17.8	14.1	0.0	17.9	11.6	0.0	31.4	14.4	0.0
LnGrp LOS	B	B		B	B		B	B		C	B	
Approach Vol, veh/h		399			356			204			90	
Approach Delay, s/veh		14.7			15.8			15.0			15.0	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.2	12.4	8.4	11.7	7.4	9.2	10.5	9.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.1	3.5	5.2	4.6	4.2	3.5	6.9	3.8				
Green Ext Time (p_c), s	0.0	0.4	0.2	1.1	0.0	0.4	0.3	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	163	3	186	3	0	2	13	281	2	4	215	53
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	173	3	198	3	0	2	14	299	2	4	229	56

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	594	594	258	694	622	300	285	0	0	301	0	0
Stage 1	265	265	-	328	328	-	-	-	-	-	-	-
Stage 2	329	329	-	366	294	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	417	418	781	357	403	740	1277	-	-	1260	-	-
Stage 1	740	689	-	685	647	-	-	-	-	-	-	-
Stage 2	684	646	-	653	670	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	411	412	780	262	397	740	1276	-	-	1260	-	-
Mov Cap-2 Maneuver	411	412	-	262	397	-	-	-	-	-	-	-
Stage 1	732	687	-	677	640	-	-	-	-	-	-	-
Stage 2	675	639	-	483	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	15.4	0.3	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1276	-	-	411	769	353	1260	-	-
HCM Lane V/C Ratio	0.011	-	-	0.422	0.261	0.015	0.003	-	-
HCM Control Delay (s)	7.9	-	-	20	11.3	15.4	7.9	-	-
HCM Lane LOS	A	-	-	C	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	2	1	0	0	-	-

Intersection												
Intersection Delay, s/veh	11.8											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	205	182	47	0	54	111	7	0	31	36	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	218	194	50	0	57	118	7	0	33	38	36
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	12.5	10.5	10.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	51%	0%	79%	0%	94%	0%	40%
Vol Right, %	0%	49%	0%	21%	0%	6%	0%	60%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	70	205	229	54	118	9	200
LT Vol	31	0	205	0	54	0	9	0
Through Vol	0	36	0	182	0	111	0	80
RT Vol	0	34	0	47	0	7	0	120
Lane Flow Rate	33	74	218	244	57	126	10	213
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.066	0.131	0.384	0.385	0.107	0.216	0.019	0.358
Departure Headway (Hd)	7.192	6.336	6.344	5.693	6.732	6.183	6.984	6.051
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	497	564	567	631	531	580	512	594
Service Time	4.948	4.092	4.086	3.435	4.484	3.934	4.732	3.798
HCM Lane V/C Ratio	0.066	0.131	0.384	0.387	0.107	0.217	0.02	0.359
HCM Control Delay	10.5	10.1	13	12	10.3	10.6	9.9	12.2
HCM Lane LOS	B	B	B	B	B	B	A	B
HCM 95th-tile Q	0.2	0.4	1.8	1.8	0.4	0.8	0.1	1.6

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	9	80	120
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	85	128
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.1
HCM LOS	B

Lane

Intersection									
Intersection Delay, s/veh	9.4								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	123	157	0	38	167	0	142	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	131	167	0	40	178	0	151	31
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.8	9.7	10
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	83%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	17%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	123	157	38	167
LT Vol	142	0	0	38	0
Through Vol	0	123	0	0	167
RT Vol	29	0	157	0	0
Lane Flow Rate	182	131	167	40	178
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.26	0.191	0.21	0.065	0.261
Departure Headway (Hd)	5.155	5.243	4.537	5.801	5.297
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	693	682	787	615	675
Service Time	3.208	2.992	2.286	3.555	3.051
HCM Lane V/C Ratio	0.263	0.192	0.212	0.065	0.264
HCM Control Delay	10	9.2	8.5	9	9.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	1	0.7	0.8	0.2	1

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	62	10	9	0	2	40	9	0	6	6	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	66	11	10	0	2	43	10	0	6	6	1
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	8.4	7.8	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	86%	0%	53%	0%	82%	0%	8%
Vol Right, %	0%	14%	0%	47%	0%	18%	0%	92%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	7	63	19	2	49	17	85
LT Vol	6	0	63	0	2	0	17	0
Through Vol	0	6	0	10	0	40	0	7
RT Vol	0	1	0	9	0	9	0	78
Lane Flow Rate	6	7	67	20	2	52	18	90
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.01	0.01	0.098	0.025	0.003	0.069	0.027	0.107
Departure Headway (Hd)	5.488	4.886	5.373	4.439	5.399	4.769	5.412	4.266
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	655	736	671	793	666	755	665	845
Service Time	3.194	2.592	3.073	2.239	3.107	2.476	3.116	1.971
HCM Lane V/C Ratio	0.009	0.01	0.1	0.025	0.003	0.069	0.027	0.107
HCM Control Delay	8.2	7.6	8.7	7.4	8.1	7.8	8.3	7.5
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.3	0.1	0	0.2	0.1	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	16	7	78
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	17	7	83
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	7.6
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 2.1

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	3	139	52	2	25	275	80	49
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	Yield
Storage Length	-	-	0	-	75	-	0	-
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	3	148	55	2	27	293	85	52

Major/Minor	Major1	Major2					Minor1	
Conflicting Flow All	293	0	0	200	148	0	494	150
Stage 1	-	-	-	-	-	-	148	-
Stage 2	-	-	-	-	-	-	346	-
Critical Hdwy	-	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	-	1434	-	535	896
Stage 1	-	-	-	-	-	-	880	-
Stage 2	-	-	-	-	-	-	716	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	~-14	~-14	-	535	896
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	-
Stage 1	-	-	-	-	-	-	880	-
Stage 2	-	-	-	-	-	-	716	-

Approach	EB	WB	NB
HCM Control Delay, s			10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	863	-	-	+	-
HCM Lane V/C Ratio	0.159	-	-	-	-
HCM Control Delay (s)	10	-	-	-	-
HCM Lane LOS	B	-	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	187	292	33	37	6
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	199	311	35	39	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	346	0	538
Stage 1	-	-	328
Stage 2	-	-	210
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1213	-	504
Stage 1	-	-	730
Stage 2	-	-	825
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1213	-	502
Mov Cap-2 Maneuver	-	-	502
Stage 1	-	-	730
Stage 2	-	-	822

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1213	-	-	-	502	713
HCM Lane V/C Ratio	0.004	-	-	-	0.078	0.009
HCM Control Delay (s)	8	-	-	-	12.8	10.1
HCM Lane LOS	A	-	-	-	B	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	24	261	178	25	74	107
Conflicting Peds, #/hr	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	278	189	27	79	114

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	218	0	534
Stage 1	-	-	205
Stage 2	-	-	329
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1352	-	507
Stage 1	-	-	829
Stage 2	-	-	729
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1352	-	494
Mov Cap-2 Maneuver	-	-	494
Stage 1	-	-	828
Stage 2	-	-	711

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1352	-	-	-	651
HCM Lane V/C Ratio	0.019	-	-	-	0.296
HCM Control Delay (s)	7.7	0	-	-	12.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2

Intersection												
Intersection Delay, s/veh	9.8											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	18	2	343	0	2	4	0	2	162	14	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	19	2	365	0	2	4	0	2	172	15	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.9	8.1	9.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	91%	5%	33%	0%
Vol Thru, %	8%	1%	67%	63%
Vol Right, %	1%	94%	0%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	364	6	30
LT Vol	164	18	2	0
Through Vol	14	2	4	19
RT Vol	2	344	0	11
Lane Flow Rate	191	387	6	32
Geometry Grp	1	1	1	1
Degree of Util (X)	0.264	0.426	0.009	0.042
Departure Headway (Hd)	4.959	3.957	4.97	4.78
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	910	719	745
Service Time	3.004	1.975	3.01	2.833
HCM Lane V/C Ratio	0.265	0.425	0.008	0.043
HCM Control Delay	9.8	9.9	8.1	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	2.2	0	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	19	11
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	20	12
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	11.2											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	65	1	23	0	0	0	0	0	0	70	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	69	1	24	0	0	0	0	0	0	74	38
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	3	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	9.5	9.2
HCM LOS	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	66%	0%	4%	0%	100%	100%
Vol Right, %	34%	0%	96%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	65	24	294	15	15
LT Vol	0	65	0	294	0	0
Through Vol	70	0	1	0	15	15
RT Vol	36	0	23	0	0	0
Lane Flow Rate	113	69	26	313	16	16
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.167	0.122	0.037	0.47	0.022	0.022
Departure Headway (Hd)	5.342	6.332	5.157	5.414	4.912	4.912
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	669	565	691	666	728	728
Service Time	3.094	4.085	2.909	3.151	2.649	2.649
HCM Lane V/C Ratio	0.169	0.122	0.038	0.47	0.022	0.022
HCM Control Delay	9.2	10	8.1	12.9	7.8	7.8
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	2.5	0.1	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	293	30	0
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	312	32	0
Number of Lanes	0	1	2	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.4
HCM LOS	B

Lane

Intersection												
Intersection Delay, s/veh	7.8											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	0	0	0	7	3	32	0	61	74	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	7	3	34	0	65	79	0
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0

Approach	WB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	NB	
Conflicting Lanes Left	3	0
Conflicting Approach Right	SB	WB
Conflicting Lanes Right	3	2
HCM Control Delay	8.6	8.6
HCM LOS	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	82%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	18%	4%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	96%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	61	37	37	9	34	159	159	324
LT Vol	61	0	0	7	0	0	0	0
Through Vol	0	37	37	2	2	159	159	0
RT Vol	0	0	0	0	32	0	0	324
Lane Flow Rate	65	39	39	9	36	169	169	345
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.11	0.061	0.042	0.016	0.053	0.234	0.234	0.243
Departure Headway (Hd)	6.09	5.589	3.851	6.461	5.384	4.981	4.981	2.543
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	640	925	553	663	724	724	1413
Service Time	3.833	3.332	1.594	4.215	3.138	2.693	2.693	0.254
HCM Lane V/C Ratio	0.111	0.061	0.042	0.016	0.054	0.233	0.233	0.244
HCM Control Delay	9.6	8.7	6.8	9.3	8.4	9.2	9.2	6.1
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.1	0	0.2	0.9	0.9	1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	318	324
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	338	345
Number of Lanes	0	0	2	1

Approach SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	
Conflicting Lanes Right	0
HCM Control Delay	7.6
HCM LOS	A

Lane

Intersection			
Intersection Delay, s/veh	10.9		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	114	535	410
Demand Flow Rate, veh/h	117	546	419
Vehicles Circulating, veh/h	134	80	414
Vehicles Exiting, veh/h	699	171	212
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.8	9.9	13.8
Approach LOS	A	A	B
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	117	546	419
Cap Entry Lane, veh/h	988	1043	747
Entry HV Adj Factor	0.977	0.980	0.979
Flow Entry, veh/h	114	535	410
Cap Entry, veh/h	965	1022	731
V/C Ratio	0.118	0.523	0.561
Control Delay, s/veh	4.8	9.9	13.8
LOS	A	A	B
95th %tile Queue, veh	0	3	4

Intersection

Int Delay, s/veh 7

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	1	167	0	1	37	273	229	47
Conflicting Peds, #/hr	0	0	18	0	0	0	0	28
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	-	-	-	0	-	75	0
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	178	0	1	39	290	244	50

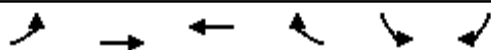
Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	290	0 0 228 206 0	575 207
Stage 1	-	- - - - -	206 -
Stage 2	-	- - - - -	369 -
Critical Hdwy	-	- - - 4.12 -	6.42 6.22
Critical Hdwy Stg 1	-	- - - - -	5.42 -
Critical Hdwy Stg 2	-	- - - - -	5.42 -
Follow-up Hdwy	-	- - - 2.218 -	3.518 3.318
Pot Cap-1 Maneuver	-	- - - - 1365 -	480 833
Stage 1	-	- - - - -	829 -
Stage 2	-	- - - - -	699 -
Platoon blocked, %	-	- - - - -	- -
Mov Cap-1 Maneuver	-	- - - ~ -39 ~ -39 -	462 814
Mov Cap-2 Maneuver	-	- - - - -	462 -
Stage 1	-	- - - - -	810 -
Stage 2	-	- - - - -	689 -

Approach	EB	WB	NB
HCM Control Delay, s			19.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	462	814	-	-	+	-
HCM Lane V/C Ratio	0.527	0.061	-	-	-	-
HCM Control Delay (s)	21.2	9.7	-	-	-	-
HCM Lane LOS	C	A	-	-	-	-
HCM 95th %tile Q(veh)	3	0.2	-	-	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	38	177	208	40	31	103
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98			0.94	1.00	0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	40	188	221	43	33	110
Adj No. of Lanes	1	1	1	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	361	525	422	82	168	560
Arrive On Green	0.28	0.28	0.28	0.28	0.51	0.51
Sat Flow, veh/h	1091	1863	1499	292	330	1101
Grp Volume(v), veh/h	40	188	0	264	144	0
Grp Sat Flow(s),veh/h/ln	1091	1863	0	1791	1441	0
Q Serve(g_s), s	1.2	3.1	0.0	4.7	2.1	0.0
Cycle Q Clear(g_c), s	6.0	3.1	0.0	4.7	2.1	0.0
Prop In Lane	1.00			0.16	0.23	0.76
Lane Grp Cap(c), veh/h	361	525	0	505	733	0
V/C Ratio(X)	0.11	0.36	0.00	0.52	0.20	0.00
Avail Cap(c_a), veh/h	797	1270	0	751	983	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.1	10.9	0.0	11.5	5.1	0.0
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	1.6	0.0	2.4	0.8	0.0
LnGrp Delay(d),s/veh	14.2	11.4	0.0	12.4	5.2	0.0
LnGrp LOS	B	B		B	A	
Approach Vol, veh/h		228	264		144	
Approach Delay, s/veh		11.9	12.4		5.2	
Approach LOS		B	B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				14.7		23.4		14.7
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				8.0		4.1		6.7
Green Ext Time (p_c), s				2.8		0.5		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.6
HCM 2010 LOS	B

Notes
User approved volume balancing among the lanes for turning movement.

Intersection

Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	2	15	201	8	1	8	172	14	0	37	8	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	16	214	9	1	9	183	15	0	39	9	54
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.7	9.4	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	39%	100%	0%	100%	0%
Vol Thru, %	8%	0%	96%	0%	92%
Vol Right, %	53%	0%	4%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	17	209	9	186
LT Vol	37	17	0	9	0
Through Vol	8	0	201	0	172
RT Vol	51	0	8	0	14
Lane Flow Rate	102	18	222	10	198
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.135	0.027	0.304	0.015	0.271
Departure Headway (Hd)	4.76	5.459	4.93	5.489	4.934
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	754	656	729	653	728
Service Time	2.788	3.187	2.657	3.217	2.661
HCM Lane V/C Ratio	0.135	0.027	0.305	0.015	0.272
HCM Control Delay	8.5	8.3	9.8	8.3	9.5
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.1	1.3	0	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach
 Opposing Lanes
 Conflicting Approach Left
 Conflicting Lanes Left
 Conflicting Approach Right
 Conflicting Lanes Right
 HCM Control Delay
 HCM LOS

Lane

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	8	227	2	239	8	24	0
Conflicting Peds, #/hr	0	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	9	241	2	254	9	26	0













Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	263	0	241
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1301	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1301	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3		12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1301	-	-	-	514
HCM Lane V/C Ratio	0.007	-	-	-	0.05
HCM Control Delay (s)	7.8	-	-	-	12.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2



















**A.9 – SYNCHRO CALCULATION SHEETS – EXISTING PLUS PROJECT
ACCESS SCENARIO 2**



								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	139	85	73	97	258	313		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	145	89	76	101	269	326		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	276	246	136	987	653	539		
Arrive On Green	0.16	0.16	0.08	0.55	0.35	0.35		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1536		
Grp Volume(v), veh/h	145	89	76	101	269	326		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1536		
Q Serve(g_s), s	2.4	1.6	1.3	0.9	3.5	5.7		
Cycle Q Clear(g_c), s	2.4	1.6	1.3	0.9	3.5	5.7		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	276	246	136	987	653	539		
V/C Ratio(X)	0.53	0.36	0.56	0.10	0.41	0.61		
Avail Cap(c_a), veh/h	1097	979	878	1690	1181	974		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	12.6	12.2	14.4	3.5	8.0	8.7		
Incr Delay (d2), s/veh	1.6	0.9	3.6	0.0	0.4	1.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.8	0.8	0.4	1.9	2.5		
LnGrp Delay(d),s/veh	14.1	13.1	18.0	3.5	8.4	9.8		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	234			177	595			
Approach Delay, s/veh	13.7			9.7	9.1			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		10.0	6.5	15.8				22.3
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.4	3.3	7.7				2.9
Green Ext Time (p_c), s		0.6	0.1	3.0				3.7
Intersection Summary								
HCM 2010 Ctrl Delay	10.3							
HCM 2010 LOS	B							





















HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	182	117	55	224	29	43	92	16	24	160	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	0.99		0.61	0.99		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1839	1900	1900	1857	1900
Adj Flow Rate, veh/h	6	190	122	57	233	30	45	96	17	25	167	23
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2
Cap, veh/h	95	1095	915	746	954	123	172	243	37	119	314	40
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	11	1844	1540	1052	1606	207	288	1125	170	109	1457	188
Grp Volume(v), veh/h	196	0	122	57	0	263	158	0	0	215	0	0
Grp Sat Flow(s),veh/h/ln	1855	0	1540	1052	0	1813	1583	0	0	1753	0	0
Q Serve(g_s), s	0.0	0.0	1.5	1.1	0.0	2.9	0.0	0.0	0.0	0.4	0.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	1.5	3.1	0.0	2.9	3.4	0.0	0.0	4.5	0.0	0.0
Prop In Lane	0.03		1.00	1.00		0.11	0.28		0.11	0.12		0.11
Lane Grp Cap(c), veh/h	1190	0	915	746	0	1077	451	0	0	474	0	0
V/C Ratio(X)	0.16	0.00	0.13	0.08	0.00	0.24	0.35	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	1234	0	952	772	0	1121	864	0	0	959	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	3.9	0.0	3.8	4.6	0.0	4.1	14.3	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1	0.0	0.0	0.1	0.5	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	0.0	0.6	0.3	0.0	1.4	1.6	0.0	0.0	2.3	0.0	0.0
LnGrp Delay(d),s/veh	3.9	0.0	3.8	4.6	0.0	4.2	14.7	0.0	0.0	15.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		318			320			158			215	
Approach Delay, s/veh		3.9			4.2			14.7			15.4	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		29.0		13.1		29.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0				
Max Q Clear Time (g_c+I1), s		5.4		4.0		6.5		5.1				
Green Ext Time (p_c), s		2.1		3.6		2.0		3.6				
Intersection Summary												
HCM 2010 Ctrl Delay			8.1									
HCM 2010 LOS			A									



















HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	162	20	13	260	45	10	102	11	82	254	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.94	1.00		0.56	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1859	1900	1900	1854	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	19	169	21	14	271	47	10	106	11	85	265	35
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	142	516	60	124	506	85	21	380	179	146	527	412
Arrive On Green	0.34	0.34	0.34	0.34	0.34	0.34	0.01	0.21	0.21	0.08	0.28	0.28
Sat Flow, veh/h	66	1523	178	29	1493	251	1601	1776	836	1774	1863	1456
Grp Volume(v), veh/h	209	0	0	332	0	0	10	106	11	85	265	35
Grp Sat Flow(s),veh/h/ln	1767	0	0	1773	0	0	1601	1776	836	1774	1863	1456
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6	0.3	1.5	3.9	0.6
Cycle Q Clear(g_c), s	2.8	0.0	0.0	4.9	0.0	0.0	0.2	1.6	0.3	1.5	3.9	0.6
Prop In Lane	0.09		0.10	0.04		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	718	0	0	714	0	0	21	380	179	146	527	412
V/C Ratio(X)	0.29	0.00	0.00	0.46	0.00	0.00	0.47	0.28	0.06	0.58	0.50	0.09
Avail Cap(c_a), veh/h	1489	0	0	1506	0	0	780	1676	789	864	1758	1374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.1	0.0	0.0	8.8	0.0	0.0	16.1	10.8	10.3	14.5	9.8	8.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	0.0	15.3	0.4	0.1	3.7	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	0.0	0.0	2.5	0.0	0.0	0.2	0.8	0.1	0.9	2.1	0.2
LnGrp Delay(d),s/veh	8.3	0.0	0.0	9.3	0.0	0.0	31.4	11.2	10.4	18.2	10.6	8.7
LnGrp LOS	A			A			C	B	B	B	B	A
Approach Vol, veh/h		209			332			127			385	
Approach Delay, s/veh		8.3			9.3			12.7			12.1	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	11.0		15.1	4.4	13.3		15.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	16.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+I1), s	3.5	3.6		4.8	2.2	5.9		6.9				
Green Ext Time (p_c), s	0.1	2.6		3.6	0.0	2.6		3.4				
Intersection Summary												
HCM 2010 Ctrl Delay			10.5									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
49: Russell Blvd & Sycamore Ln



























Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	210	569	0	0	316	38	0	0	0	89	0	180
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.58	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	219	593	0	0	329	40	0	0	0	93	0	188
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	183	1747	0	0	844	98	0	5	0	348	0	0
Arrive On Green	0.10	0.49	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.20	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	3036	342	0	-111765	0	1774	93	
Grp Volume(v), veh/h	219	593	0	0	192	177	0	0	0	93	13.5	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1516	0	1863	0	1774	B	
Q Serve(g_s), s	4.0	3.9	0.0	0.0	3.4	3.6	0.0	0.0	0.0	1.7		
Cycle Q Clear(g_c), s	4.0	3.9	0.0	0.0	3.4	3.6	0.0	0.0	0.0	1.7		
Prop In Lane	1.00		0.00	0.00		0.23	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	183	1747	0	0	508	435	0	5	0	348		
V/C Ratio(X)	1.19	0.34	0.00	0.00	0.38	0.41	0.00	0.00	0.00	0.27		
Avail Cap(c_a), veh/h	183	1747	0	0	1377	1180	0	915	0	872		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	17.3	6.0	0.0	0.0	11.0	11.1	0.0	0.0	0.0	13.2		
Incr Delay (d2), s/veh	128.2	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	8.4	1.9	0.0	0.0	1.6	1.6	0.0	0.0	0.0	0.9		
LnGrp Delay(d),s/veh	145.5	6.0	0.0	0.0	11.2	11.4	0.0	0.0	0.0	13.5		
LnGrp LOS	F	A			B	B				B		
Approach Vol, veh/h		812			369			0				
Approach Delay, s/veh		43.7			11.3			0.0				
Approach LOS		D			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		25.1			8.0	17.1	13.6	0.0				
Change Period (Y+Rc), s		6.0			4.0	*6	6.0	6.0				
Max Green Setting (Gmax), s		19.0			4.0	*30	19.0	19.0				
Max Q Clear Time (g_c+I1), s		5.9			6.0	5.6	3.7	0.0				
Green Ext Time (p_c), s		3.9			0.0	4.7	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				32.1								
HCM 2010 LOS				C								
Notes												
User approved pedestrian interval to be less than phase max green.												

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	81	472	105	226	252	54	45	57	96	98	240	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	84	492	0	235	262	56	47	59	0	102	250	61
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	1050	0	291	1138	477	69	586	0	129	558	133
Arrive On Green	0.06	0.30	0.00	0.08	0.32	0.32	0.04	0.17	0.00	0.07	0.20	0.20
Sat Flow, veh/h	1774	3632	0	3442	3539	1484	1774	3632	0	1774	2798	664
Grp Volume(v), veh/h	84	492	0	235	262	56	47	59	0	102	156	155
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1484	1774	1770	0	1774	1770	1693
Q Serve(g_s), s	2.2	5.4	0.0	3.2	2.6	1.3	1.2	0.7	0.0	2.7	3.7	3.8
Cycle Q Clear(g_c), s	2.2	5.4	0.0	3.2	2.6	1.3	1.2	0.7	0.0	2.7	3.7	3.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.39
Lane Grp Cap(c), veh/h	106	1050	0	291	1138	477	69	586	0	129	353	338
V/C Ratio(X)	0.80	0.47	0.00	0.81	0.23	0.12	0.68	0.10	0.00	0.79	0.44	0.46
Avail Cap(c_a), veh/h	150	2244	0	291	2244	941	150	1122	0	150	561	537
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	13.6	0.0	21.3	11.8	11.3	22.4	16.8	0.0	21.6	16.6	16.7
Incr Delay (d2), s/veh	17.3	0.1	0.0	15.4	0.0	0.0	11.1	0.0	0.0	21.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	2.6	0.0	2.1	1.2	0.5	0.8	0.3	0.0	2.1	1.8	1.8
LnGrp Delay(d),s/veh	39.3	13.7	0.0	36.7	11.8	11.4	33.6	16.8	0.0	42.7	16.9	17.1
LnGrp LOS	D	B		D	B	B	C	B		D	B	B
Approach Vol, veh/h		576			553			106			413	
Approach Delay, s/veh		17.5			22.3			24.2			23.3	
Approach LOS		B			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.0	19.0	5.8	14.4	6.8	20.2	7.5	12.8				
Change Period (Y+Rc), s	4.0	5.0	4.0	5.0	4.0	5.0	4.0	5.0				
Max Green Setting (Gmax), s	4.0	30.0	4.0	15.0	4.0	30.0	4.0	15.0				
Max Q Clear Time (g_c+I1), s	5.2	7.4	3.2	5.8	4.2	4.6	4.7	2.7				
Green Ext Time (p_c), s	0.0	3.6	0.0	1.0	0.0	3.7	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			21.0									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	560	117	68	479	0	20
Conflicting Peds, #/hr	0	17	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	583	122	71	499	0	21






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1035
Stage 1	-	-	644
Stage 2	-	-	391
Critical Hdwy	-	4.14	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.22	3.52
Pot Cap-1 Maneuver	-	889	228
Stage 1	-	-	485
Stage 2	-	-	653
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	889	207
Mov Cap-2 Maneuver	-	-	336
Stage 1	-	-	485
Stage 2	-	-	592

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	643	-	-	889	-
HCM Lane V/C Ratio	0.032	-	-	0.08	-
HCM Control Delay (s)	10.8	-	-	9.4	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-




















HCM 2010 Signalized Intersection Summary
46: Howard Way/College Park & Russell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	414	146	173	397	12	48	0	28	9	1	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.91	1.00		0.93	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	18	431	152	180	414	12	50	0	29	9	1	14
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	703	245	124	1143	33	478	0	395	66	69	50
Arrive On Green	0.02	0.27	0.27	0.07	0.33	0.33	0.27	0.00	0.27	0.04	0.04	0.04
Sat Flow, veh/h	1774	2567	896	1774	3502	101	1774	0	1468	1774	1863	1365
Grp Volume(v), veh/h	18	296	287	180	209	217	50	0	29	9	1	14
Grp Sat Flow(s),veh/h/ln	1774	1770	1693	1774	1770	1834	1774	0	1468	1774	1863	1365
Q Serve(g_s), s	0.6	8.3	8.5	4.0	5.1	5.2	1.2	0.0	0.8	0.3	0.0	0.6
Cycle Q Clear(g_c), s	0.6	8.3	8.5	4.0	5.1	5.2	1.2	0.0	0.8	0.3	0.0	0.6
Prop In Lane	1.00		0.53	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	31	484	463	124	578	598	478	0	395	66	69	50
V/C Ratio(X)	0.58	0.61	0.62	1.45	0.36	0.36	0.10	0.00	0.07	0.14	0.01	0.28
Avail Cap(c_a), veh/h	124	929	889	124	929	963	931	0	770	900	945	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	18.1	18.1	26.6	14.7	14.7	15.7	0.0	15.6	26.6	26.5	26.8
Incr Delay (d2), s/veh	16.2	0.5	0.5	241.4	0.1	0.1	0.0	0.0	0.0	0.4	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	4.1	4.0	10.3	2.5	2.6	0.6	0.0	0.3	0.1	0.0	0.2
LnGrp Delay(d),s/veh	44.1	18.6	18.7	268.0	14.8	14.8	15.7	0.0	15.6	27.0	26.5	27.9
LnGrp LOS	D	B	B	F	B	B	B		B	C	C	C
Approach Vol, veh/h		601			606			79			24	
Approach Delay, s/veh		19.4			90.0			15.7			27.5	
Approach LOS		B			F			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	20.6		8.1	5.0	23.6		20.4				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		5.0				
Max Green Setting (Gmax), s	4.0	30.0		29.0	4.0	30.0		30.0				
Max Q Clear Time (g_c+I1), s	6.0	10.5		2.6	2.6	7.2		3.2				
Green Ext Time (p_c), s	0.0	4.1		0.0	0.0	4.2		0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			52.0									
HCM 2010 LOS			D									


























HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	453	0	0	509	15	65	14	13	0	0	1
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.86	1.00		0.95	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	25	472	0	0	530	16	68	15	14	0	0	1
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	579	1682	0	0	1658	50	370	181	169	0	0	0
Arrive On Green	0.48	0.48	0.00	0.00	0.48	0.48	0.21	0.21	0.21	0.00	0.00	0.00
Sat Flow, veh/h	856	3632	0	0	3581	105	1774	866	809		0	
Grp Volume(v), veh/h	25	472	0	0	268	278	68	0	29		0.0	
Grp Sat Flow(s),veh/h/ln	856	1770	0	0	1770	1824	1774	0	1675			
Q Serve(g_s), s	0.5	2.3	0.0	0.0	2.7	2.7	0.9	0.0	0.4			
Cycle Q Clear(g_c), s	3.2	2.3	0.0	0.0	2.7	2.7	0.9	0.0	0.4			
Prop In Lane	1.00		0.00	0.00		0.06	1.00		0.48			
Lane Grp Cap(c), veh/h	579	1682	0	0	841	867	370	0	349			
V/C Ratio(X)	0.04	0.28	0.00	0.00	0.32	0.32	0.18	0.00	0.08			
Avail Cap(c_a), veh/h	1555	5720	0	0	2860	2947	1247	0	1177			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.6	4.5	0.0	0.0	4.6	4.6	9.3	0.0	9.1			
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.2	0.2	0.1	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	0.1	1.1	0.0	0.0	1.3	1.4	0.4	0.0	0.2			
LnGrp Delay(d),s/veh	5.6	4.6	0.0	0.0	4.8	4.8	9.4	0.0	9.1			
LnGrp LOS	A	A			A	A	A		A			
Approach Vol, veh/h		497			546			97				
Approach Delay, s/veh		4.7			4.8			9.3				
Approach LOS		A			A			A				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		17.5				17.5		10.9				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		5.2				4.7		2.9				
Green Ext Time (p_c), s		8.2				8.2		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			5.1									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												





















HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (veh/h)	11	247	123	69	324	59	164	109	17	53	217	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.87	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	11	257	0	72	338	0	171	114	18	55	226	21
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	1124	0	135	1334	0	225	479	354	114	326	30
Arrive On Green	0.02	0.32	0.00	0.08	0.38	0.00	0.13	0.26	0.26	0.06	0.19	0.19
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1375	1774	1673	155
Grp Volume(v), veh/h	11	257	0	72	338	0	171	114	18	55	0	247
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1375	1774	0	1828
Q Serve(g_s), s	0.3	2.6	0.0	1.9	3.2	0.0	4.6	2.4	0.5	1.5	0.0	6.2
Cycle Q Clear(g_c), s	0.3	2.6	0.0	1.9	3.2	0.0	4.6	2.4	0.5	1.5	0.0	6.2
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	30	1124	0	135	1334	0	225	479	354	114	0	356
V/C Ratio(X)	0.36	0.23	0.00	0.53	0.25	0.00	0.76	0.24	0.05	0.48	0.00	0.69
Avail Cap(c_a), veh/h	414	2624	0	414	2624	0	595	624	461	595	0	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	12.4	0.0	21.9	10.6	0.0	20.8	14.5	13.8	22.2	0.0	18.4
Incr Delay (d2), s/veh	2.7	0.0	0.0	1.2	0.0	0.0	5.3	0.1	0.0	1.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	1.3	0.0	1.0	1.6	0.0	2.6	1.2	0.2	0.8	0.0	3.2
LnGrp Delay(d),s/veh	26.6	12.4	0.0	23.1	10.6	0.0	26.0	14.6	13.8	23.4	0.0	19.3
LnGrp LOS	C	B		C	B		C	B	B	C		B
Approach Vol, veh/h		268			410			303			302	
Approach Delay, s/veh		13.0			12.8			21.0			20.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	19.1	9.7	13.1	4.3	22.1	6.7	16.2				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	11.5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+I1), s	3.9	4.6	6.6	8.2	2.3	5.2	3.5	4.4				
Green Ext Time (p_c), s	0.0	2.8	0.3	1.0	0.0	2.8	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			16.5									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												





















HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	218	17	16	429	28	6	67	7	36	134	85
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.71	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1782	1900	1863	1846	1900	1776	1805	1900	1863	1863	1900
Adj Flow Rate, veh/h	18	227	18	17	447	29	6	70	7	38	140	89
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	102	1016	81	41	994	64	13	217	22	60	176	112
Arrive On Green	0.07	0.62	0.62	0.05	1.00	1.00	0.01	0.14	0.14	0.03	0.17	0.17
Sat Flow, veh/h	1533	1626	129	1774	1710	111	1691	1547	155	1774	1024	651
Grp Volume(v), veh/h	18	0	245	17	0	476	6	0	77	38	0	229
Grp Sat Flow(s),veh/h/ln	1533	0	1755	1774	0	1821	1691	0	1702	1774	0	1675
Q Serve(g_s), s	1.0	0.0	5.5	0.8	0.0	0.0	0.3	0.0	3.7	1.9	0.0	11.8
Cycle Q Clear(g_c), s	1.0	0.0	5.5	0.8	0.0	0.0	0.3	0.0	3.7	1.9	0.0	11.8
Prop In Lane	1.00		0.07	1.00		0.06	1.00		0.09	1.00		0.39
Lane Grp Cap(c), veh/h	102	0	1096	41	0	1058	13	0	239	60	0	288
V/C Ratio(X)	0.18	0.00	0.22	0.42	0.00	0.45	0.46	0.00	0.32	0.63	0.00	0.79
Avail Cap(c_a), veh/h	102	0	1096	118	0	1058	103	0	378	99	0	372
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.00	0.94	0.82	0.00	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	7.4	42.3	0.0	0.0	44.5	0.0	34.8	42.9	0.0	35.7
Incr Delay (d2), s/veh	0.3	0.0	0.4	2.0	0.0	1.1	9.0	0.0	0.3	4.0	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.4	0.0	2.8	0.4	0.0	0.3	0.2	0.0	1.8	1.0	0.0	6.0
LnGrp Delay(d),s/veh	40.0	0.0	7.8	44.4	0.0	1.1	53.5	0.0	35.1	46.9	0.0	42.3
LnGrp LOS	D		A	D		A	D		D	D		D
Approach Vol, veh/h		263			493			83				267
Approach Delay, s/veh		10.0			2.6			36.4				42.9
Approach LOS		B			A			D				D
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	60.2	4.2	19.5	10.0	56.3	7.1	16.6				
Change Period (Y+Rc), s	4.0	4.0	3.5	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	43.0	5.5	20.0	6.0	43.0	5.0	20.0				
Max Q Clear Time (g_c+I1), s	2.8	7.5	2.3	13.8	3.0	2.0	3.9	5.7				
Green Ext Time (p_c), s	0.0	7.7	0.0	0.7	0.0	7.9	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			16.7									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	233	18	35	440	30	13	34	27	23	32	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.87	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1794	1900	1863	1855	1900	1681	1783	1900	1827	1624	1900
Adj Flow Rate, veh/h	12	243	19	36	458	31	14	35	28	24	33	20
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	792	62	128	827	56	98	195	156	106	210	127
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1639	128	1774	1712	116	1601	858	687	1740	923	559
Grp Volume(v), veh/h	12	0	262	36	0	489	14	0	63	24	0	53
Grp Sat Flow(s),veh/h/ln	1533	0	1767	1774	0	1828	1601	0	1545	1740	0	1482
Q Serve(g_s), s	0.6	0.0	0.6	1.7	0.0	17.0	0.7	0.0	3.0	1.2	0.0	2.6
Cycle Q Clear(g_c), s	0.6	0.0	0.6	1.7	0.0	17.0	0.7	0.0	3.0	1.2	0.0	2.6
Prop In Lane	1.00		0.07	1.00		0.06	1.00		0.44	1.00		0.38
Lane Grp Cap(c), veh/h	111	0	854	128	0	883	98	0	352	106	0	338
V/C Ratio(X)	0.11	0.00	0.31	0.28	0.00	0.55	0.14	0.00	0.18	0.23	0.00	0.16
Avail Cap(c_a), veh/h	111	0	854	128	0	883	98	0	352	106	0	338
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	0.8	39.5	0.0	16.4	40.0	0.0	28.0	40.2	0.0	27.8
Incr Delay (d2), s/veh	2.0	0.0	0.9	5.4	0.0	2.5	3.0	0.0	1.1	4.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.3	0.0	0.4	1.0	0.0	9.2	0.4	0.0	1.4	0.7	0.0	1.2
LnGrp Delay(d),s/veh	37.9	0.0	1.7	44.9	0.0	18.9	43.1	0.0	29.1	45.1	0.0	28.8
LnGrp LOS	D		A	D		B	D		C	D		C
Approach Vol, veh/h		274			525			77			77	
Approach Delay, s/veh		3.3			20.7			31.6			33.9	
Approach LOS		A			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	6.5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+I1), s	3.7	2.6	2.7	4.6	2.6	19.0	3.2	5.0				
Green Ext Time (p_c), s	0.0	8.3	0.0	0.4	0.0	7.2	0.0	0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			17.6									
HCM 2010 LOS			B									

Intersection												
Intersection Delay, s/veh	8.3											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	2	18	5	0	16	36	9	0	10	68	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	19	5	0	17	38	9	0	10	71	18
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	7.7	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	8%	26%	100%	0%
Vol Thru, %	0%	80%	72%	59%	0%	90%
Vol Right, %	0%	20%	20%	15%	0%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	85	25	61	27	144
LT Vol	10	0	2	16	27	0
Through Vol	0	68	18	36	0	130
RT Vol	0	17	5	9	0	14
Lane Flow Rate	10	89	26	64	28	150
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.016	0.117	0.033	0.081	0.041	0.195
Departure Headway (Hd)	5.395	4.753	4.57	4.591	5.243	4.673
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	666	757	786	783	674	756
Service Time	3.108	2.466	2.581	2.6	3.042	2.472
HCM Lane V/C Ratio	0.015	0.118	0.033	0.082	0.042	0.198
HCM Control Delay	8.2	8.1	7.7	8	8.3	8.6
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0.4	0.1	0.3	0.1	0.7

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	27	130	14
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	28	135	15
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 2

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1























HCM Control Delay 8.6

HCM LOS A

Lane



















HCM 2010 Signalized Intersection Summary
95: La Rue Rd & Orchard Rd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	11	23	21	2	30	22	162	67	91	402	71
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.94		0.98	1.00		0.96	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	21	11	24	22	2	31	23	169	70	95	419	74
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	419	161	293	529	35	312	630	1098	433	774	1279	221
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	783	799	1457	1124	176	1550	897	2449	966	1132	2855	493
Grp Volume(v), veh/h	32	0	24	24	0	31	23	120	119	95	256	237
Grp Sat Flow(s),veh/h/ln	1581	0	1457	1300	0	1550	897	1770	1646	1132	1770	1578
Q Serve(g_s), s	0.0	0.0	0.3	0.1	0.0	0.4	0.4	0.9	1.0	1.2	2.1	2.2
Cycle Q Clear(g_c), s	0.3	0.0	0.3	0.4	0.0	0.4	2.6	0.9	1.0	2.2	2.1	2.2
Prop In Lane	0.66		1.00	0.92		1.00	1.00		0.59	1.00		0.31
Lane Grp Cap(c), veh/h	579	0	293	564	0	312	630	793	738	774	793	707
V/C Ratio(X)	0.06	0.00	0.08	0.04	0.00	0.10	0.04	0.15	0.16	0.12	0.32	0.34
Avail Cap(c_a), veh/h	1994	0	1661	1800	0	1767	1250	2017	1875	1557	2017	1798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.4	0.0	7.4	7.4	0.0	7.4	4.9	3.7	3.7	4.4	4.1	4.1
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	0.1	0.1	0.0	0.2	0.1	0.5	0.5	0.4	1.0	1.0
LnGrp Delay(d),s/veh	7.4	0.0	7.5	7.4	0.0	7.6	5.0	3.8	3.8	4.5	4.3	4.4
LnGrp LOS	A		A	A		A	A	A	A	A	A	A
Approach Vol, veh/h		56			55			262			588	
Approach Delay, s/veh		7.5			7.5			3.9			4.4	
Approach LOS		A			A			A			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.2		8.6		14.2		8.6				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		4.6		2.3		4.2		2.4				
Green Ext Time (p_c), s		5.2		0.4		5.3		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			4.6									
HCM 2010 LOS			A									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	0	1	29	3	43	6	239	9	42	348	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.86	1.00		0.65	1.00		0.81	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	1	0	1	30	3	45	6	249	9	44	362	15
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	35	0	35	34	3	51	11	670	24	71	729	30
Arrive On Green	0.05	0.00	0.05	0.07	0.07	0.07	0.01	0.38	0.38	0.04	0.41	0.41
Sat Flow, veh/h	771	0	771	481	48	722	1774	1770	64	1774	1772	73
Grp Volume(v), veh/h	2	0	0	78	0	0	6	0	258	44	0	377
Grp Sat Flow(s),veh/h/ln	1542	0	0	1251	0	0	1774	0	1834	1774	0	1845
Q Serve(g_s), s	0.0	0.0	0.0	2.1	0.0	0.0	0.1	0.0	3.5	0.8	0.0	5.2
Cycle Q Clear(g_c), s	0.0	0.0	0.0	2.1	0.0	0.0	0.1	0.0	3.5	0.8	0.0	5.2
Prop In Lane	0.50		0.50	0.38		0.58	1.00		0.03	1.00		0.04
Lane Grp Cap(c), veh/h	70	0	0	88	0	0	11	0	694	71	0	760
V/C Ratio(X)	0.03	0.00	0.00	0.88	0.00	0.00	0.52	0.00	0.37	0.62	0.00	0.50
Avail Cap(c_a), veh/h	718	0	0	583	0	0	207	0	1389	207	0	1397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	0.0	15.8	0.0	0.0	17.0	0.0	7.7	16.2	0.0	7.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	40.1	0.0	0.0	32.1	0.0	0.7	8.6	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	0.0	1.7	0.0	0.0	0.2	0.0	1.9	0.6	0.0	2.8
LnGrp Delay(d),s/veh	15.8	0.0	0.0	55.9	0.0	0.0	49.1	0.0	8.4	24.8	0.0	8.5
LnGrp LOS	B			E			D		A	C		A
Approach Vol, veh/h		2			78			264			421	
Approach Delay, s/veh		15.8			55.9			9.4			10.2	
Approach LOS		B			E			A			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	17.0		5.6	4.2	18.1		6.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	4.0	26.0		16.0	4.0	26.0		16.0				
Max Q Clear Time (g_c+I1), s	2.8	5.5		2.0	2.1	7.2		4.1				
Green Ext Time (p_c), s	0.0	7.3		0.0	0.0	6.9		0.5				
Intersection Summary												
HCM 2010 Ctrl Delay			14.6									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	9	33	11	0	18	78	8	0	17	83	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	9	34	11	0	19	81	8	0	18	86	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.9	8.3	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	17%	17%	11%
Vol Thru, %	80%	62%	75%	58%
Vol Right, %	4%	21%	8%	31%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	104	53	104	128
LT Vol	17	9	18	14
Through Vol	83	33	78	74
RT Vol	4	11	8	40
Lane Flow Rate	108	55	108	133
Geometry Grp	1	1	1	1
Degree of Util (X)	0.135	0.069	0.136	0.158
Departure Headway (Hd)	4.47	4.513	4.529	4.272
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	804	794	793	841
Service Time	2.486	2.536	2.55	2.289
HCM Lane V/C Ratio	0.134	0.069	0.136	0.158
HCM Control Delay	8.2	7.9	8.3	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.5	0.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	14	74	40
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	15	77	42
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 1

Conflicting Approach Left WB

Conflicting Lanes Left 1

Conflicting Approach Right EB

Conflicting Lanes Right 1

HCM Control Delay 8.1

HCM LOS A

Lane

Intersection												
Int Delay, s/veh	1.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	6	15	9	7	27	4	224	12	38	326	15
Conflicting Peds, #/hr	0	0	21	0	0	15	0	0	5	0	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	6	16	9	7	28	4	233	12	40	340	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	729	717	373	722	718	270	376	0	0	261	0	0
Stage 1	448	448	-	263	263	-	-	-	-	-	-	-
Stage 2	281	269	-	459	455	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	338	355	673	342	355	769	1182	-	-	1303	-	-
Stage 1	590	573	-	742	691	-	-	-	-	-	-	-
Stage 2	726	687	-	582	569	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	302	333	658	315	333	750	1177	-	-	1287	-	-
Mov Cap-2 Maneuver	302	333	-	315	333	-	-	-	-	-	-	-
Stage 1	578	545	-	730	680	-	-	-	-	-	-	-
Stage 2	680	676	-	542	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	12.9	0.1	0.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1177	-	-	445	502	1287	-	-
HCM Lane V/C Ratio	0.004	-	-	0.063	0.089	0.031	-	-
HCM Control Delay (s)	8.1	-	-	13.6	12.9	7.9	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.1	-	-

Intersection

Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	12	16	10	0	0	27	20	0	11	85	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	13	17	10	0	0	28	21	0	11	89	15
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.6	7.5	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	32%	0%	29%
Vol Thru, %	77%	42%	57%	71%
Vol Right, %	13%	26%	43%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	39	47	111
LT Vol	11	12	0	32
Through Vol	85	16	27	79
RT Vol	14	10	20	0
Lane Flow Rate	115	41	49	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.131	0.05	0.058	0.136
Departure Headway (Hd)	4.123	4.404	4.235	4.236
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	818	850	836
Service Time	2.207	2.406	2.237	2.317
HCM Lane V/C Ratio	0.134	0.05	0.058	0.139
HCM Control Delay	7.8	7.6	7.5	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.5

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	32	79	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	33	82	0
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8
HCM LOS	A

Lane

Intersection													
Int Delay, s/veh	0.3												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	2	5	1	240	9	43	2	25	87	0	0	0
Conflicting Peds, #/hr	0	0	90	0	0	0	26	0	0	6	0	0	73
Sign Control	Stop	Stop	Stop	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	2	5	1	250	9	45	2	26	91	0	0	0

Major/Minor	Minor2			Major2				Minor1		
Conflicting Flow All	641	630	122	91	6	0	0	631	652	33
Stage 1	622	624	-	-	-	-	-	6	6	-
Stage 2	19	6	-	-	-	-	-	625	646	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	439	399	929	-	-	-	-	445	387	-
Stage 1	535	478	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	534	467	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	376	0	859	-	-	-	-	443	0	-
Mov Cap-2 Maneuver	376	0	-	-	-	-	-	443	0	-
Stage 1	495	0	-	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	-	534	0	-

Approach	EB	WB	NB
HCM Control Delay, s	11.7		
HCM LOS	B		-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	443	-	547	-	-	-
HCM Lane V/C Ratio	0.063	-	0.021	-	-	-
HCM Control Delay (s)	13.7	-	11.7	-	-	-
HCM Lane LOS	B	-	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-	-





















Intersection									
Intersection Delay, s/veh	10.9								
Intersection LOS	B								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	43	57	0	230	210	0	184	156
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	45	59	0	240	219	0	192	163
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	9.7	10.9	11.2
HCM LOS	A	B	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	57	230	210	184	156
LT Vol	43	0	0	0	184	0
Through Vol	0	57	230	0	0	0
RT Vol	0	0	0	210	0	156
Lane Flow Rate	45	59	240	219	192	162
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.083	0.101	0.375	0.299	0.344	0.237
Departure Headway (Hd)	6.646	6.138	5.741	5.033	6.462	5.254
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	541	586	630	718	560	687
Service Time	4.363	3.855	3.441	2.733	4.168	2.96
HCM Lane V/C Ratio	0.083	0.101	0.381	0.305	0.343	0.236
HCM Control Delay	10	9.5	11.8	9.9	12.5	9.6
HCM Lane LOS	A	A	B	A	B	A
HCM 95th-tile Q	0.3	0.3	1.7	1.3	1.5	0.9

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	236	16	23	418	53	5	3	16	23	14	13
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	0.99		0.79	0.98		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	1	246	17	24	435	55	5	3	17	24	15	14
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	6	690	48	54	696	88	206	57	138	205	26	166
Arrive On Green	0.00	0.40	0.40	0.03	0.43	0.43	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	1774	1715	118	1774	1612	204	2	519	1255	3	237	1512
Grp Volume(v), veh/h	1	0	263	24	0	490	8	0	17	39	0	14
Grp Sat Flow(s),veh/h/ln	1774	0	1833	1774	0	1816	521	0	1255	240	0	1512
Q Serve(g_s), s	0.0	0.0	2.8	0.4	0.0	6.0	0.0	0.0	0.3	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	0.0	2.8	0.4	0.0	6.0	3.1	0.0	0.3	3.1	0.0	0.2
Prop In Lane	1.00		0.06	1.00		0.11	0.62		1.00	0.62		1.00
Lane Grp Cap(c), veh/h	6	0	738	54	0	783	263	0	138	231	0	166
V/C Ratio(X)	0.16	0.00	0.36	0.45	0.00	0.63	0.03	0.00	0.12	0.17	0.00	0.08
Avail Cap(c_a), veh/h	686	0	1934	686	0	1916	948	0	706	915	0	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	5.9	13.6	0.0	6.3	11.4	0.0	11.4	12.3	0.0	11.4
Incr Delay (d2), s/veh	4.4	0.0	0.1	2.1	0.0	0.3	0.0	0.0	0.1	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.0	0.0	1.4	0.2	0.0	2.9	0.1	0.0	0.1	0.3	0.0	0.1
LnGrp Delay(d),s/veh	18.5	0.0	6.0	15.7	0.0	6.6	11.4	0.0	11.6	12.4	0.0	11.4
LnGrp LOS	B		A	B		A	B		B	B		B
Approach Vol, veh/h		264			514			25				53
Approach Delay, s/veh		6.1			7.0			11.5				12.1
Approach LOS		A			A			B				B
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	16.4		7.1	4.0	17.3		7.1				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	11.0	30.0		16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+I1), s	2.4	4.8		5.1	2.0	8.0		5.1				
Green Ext Time (p_c), s	0.0	3.5		0.1	0.0	3.4		0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			7.2									
HCM 2010 LOS			A									






















Intersection									
Intersection Delay, s/veh	8.8								
Intersection LOS	A								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	136	138	0	65	4	0	3	70
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	142	144	0	68	4	0	3	73
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.4	7.8	7.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	0%	4%
Vol Thru, %	50%	94%	0%
Vol Right, %	0%	6%	96%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	274	69	73
LT Vol	136	0	3
Through Vol	138	65	0
RT Vol	0	4	70
Lane Flow Rate	285	72	76
Geometry Grp	1	1	1
Degree of Util (X)	0.335	0.087	0.088
Departure Headway (Hd)	4.223	4.356	4.164
Convergence, Y/N	Yes	Yes	Yes
Cap	845	826	865
Service Time	2.283	2.364	2.168
HCM Lane V/C Ratio	0.337	0.087	0.088
HCM Control Delay	9.4	7.8	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.5	0.3	0.3

HCM 2010 Signalized Intersection Summary
94: La Rue Rd & Hutchison Dr

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Volume (veh/h)	1	127	368	209	5	62	41	51	83	12	154	168
Number		7	4	14	3	8	18	5	2	12	1	6
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98		1.00	1.00		0.93	1.00		0.97	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln		1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h		132	383	0	5	65	43	50	90	12	159	177
Adj No. of Lanes		1	2	0	1	1	1	1	2	0	1	2
Peak Hour Factor		0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		710	1346	0	563	708	562	532	1062	138	659	647
Arrive On Green		0.38	0.38	0.00	0.38	0.38	0.38	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h		1257	3632	0	993	1863	1477	1053	3215	419	1284	1959
Grp Volume(v), veh/h		132	383	0	5	65	43	50	51	51	159	168
Grp Sat Flow(s),veh/h/ln		1257	1770	0	993	1863	1477	1053	1863	1771	1284	1863
Q Serve(g_s), s		2.1	2.1	0.0	0.1	0.6	0.5	1.0	0.5	0.5	2.7	1.8
Cycle Q Clear(g_c), s		2.7	2.1	0.0	2.2	0.6	0.5	3.0	0.5	0.5	3.2	1.8
Prop In Lane		1.00		0.00	1.00		1.00	1.00		0.24	1.00	
Lane Grp Cap(c), veh/h		710	1346	0	563	708	562	532	615	585	659	615
V/C Ratio(X)		0.19	0.28	0.00	0.01	0.09	0.08	0.09	0.08	0.09	0.24	0.27
Avail Cap(c_a), veh/h		1415	3331	0	1120	1753	1391	1175	1753	1667	1444	1753
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		6.4	5.9	0.0	6.7	5.5	5.5	8.0	6.4	6.4	7.5	6.8
Incr Delay (d2), s/veh		0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Initial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln		0.7	1.0	0.0	0.0	0.3	0.2	0.3	0.3	0.3	1.0	1.0
LnGrp Delay(d),s/veh		6.5	6.1	0.0	6.7	5.6	5.5	8.1	6.4	6.4	7.7	7.0
LnGrp LOS		A	A		A	A	A	A	A	A	A	A
Approach Vol, veh/h			515			113			152			477
Approach Delay, s/veh			6.2			5.6			7.0			7.3
Approach LOS			A			A			A			A
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.1		14.5		13.1		14.5				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		5.0		4.7		5.2		4.2				
Green Ext Time (p_c), s		3.3		3.7		3.3		3.7				
Intersection Summary												
HCM 2010 Ctrl Delay			6.6									
HCM 2010 LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												

Movement	SBR
Lane Configurations	
Volume (veh/h)	135
Number	16
Initial Q (Qb), veh	0
Ped-Bike Adj(A_pbT)	0.96
Parking Bus, Adj	1.00
Adj Sat Flow, veh/h/ln	1900
Adj Flow Rate, veh/h	141
Adj No. of Lanes	0
Peak Hour Factor	0.96
Percent Heavy Veh, %	2
Cap, veh/h	477
Arrive On Green	0.33
Sat Flow, veh/h	1444
Grp Volume(v), veh/h	150
Grp Sat Flow(s),veh/h/ln	1540
Q Serve(g_s), s	2.0
Cycle Q Clear(g_c), s	2.0
Prop In Lane	0.94
Lane Grp Cap(c), veh/h	509
V/C Ratio(X)	0.30
Avail Cap(c_a), veh/h	1450
HCM Platoon Ratio	1.00
Upstream Filter(l)	1.00
Uniform Delay (d), s/veh	6.9
Incr Delay (d2), s/veh	0.3
Initial Q Delay(d3),s/veh	0.0
%ile BackOfQ(-26165%),veh/ln	0.9
LnGrp Delay(d),s/veh	7.2
LnGrp LOS	A
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	

Timer

User approved ignoring U-Turning movement.

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	24	0	10	0	5	0	2	0	16	92	32
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	25	0	10	0	5	0	2	0	17	96	33
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.1	7.9	8.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	11%	71%	71%	0%	0%
Vol Thru, %	66%	0%	0%	100%	0%
Vol Right, %	23%	29%	29%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	34	7	208	35
LT Vol	16	24	5	1	0
Through Vol	92	0	0	207	0
RT Vol	32	10	2	0	35
Lane Flow Rate	146	35	7	217	36
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.174	0.047	0.01	0.282	0.04
Departure Headway (Hd)	4.288	4.803	4.85	4.683	3.979
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	840	748	741	761	891
Service Time	2.295	2.813	2.861	2.449	1.745
HCM Lane V/C Ratio	0.174	0.047	0.009	0.285	0.04
HCM Control Delay	8.2	8.1	7.9	9.3	6.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0	1.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	1	207	35
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	1	216	36
Number of Lanes	0	0	1	1























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	9
HCM LOS	A

Lane

























HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	69	319	17	9	459	89	78	3	19	7	0	21
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.88	1.00		0.47
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	72	332	18	9	478	93	81	3	20	7	0	22
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	834	45	21	794	657	119	31	207	16	200	79
Arrive On Green	0.06	0.48	0.48	0.01	0.43	0.43	0.07	0.17	0.17	0.01	0.00	0.11
Sat Flow, veh/h	1774	1748	95	1774	1863	1543	1774	188	1252	1774	1863	737
Grp Volume(v), veh/h	72	0	350	9	478	93	81	0	23	7	0	22
Grp Sat Flow(s),veh/h/ln	1774	0	1842	1774	1863	1543	1774	0	1439	1774	1863	737
Q Serve(g_s), s	2.0	0.0	6.2	0.3	10.0	1.9	2.3	0.0	0.7	0.2	0.0	1.4
Cycle Q Clear(g_c), s	2.0	0.0	6.2	0.3	10.0	1.9	2.3	0.0	0.7	0.2	0.0	1.4
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	112	0	879	21	794	657	119	0	238	16	200	79
V/C Ratio(X)	0.64	0.00	0.40	0.43	0.60	0.14	0.68	0.00	0.10	0.43	0.00	0.28
Avail Cap(c_a), veh/h	386	0	1094	281	1106	916	281	0	238	281	295	117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	8.5	24.8	11.2	8.9	23.0	0.0	17.9	24.9	0.0	20.7
Incr Delay (d2), s/veh	6.1	0.0	0.6	13.5	1.6	0.2	6.6	0.0	0.4	16.5	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	0.0	3.3	0.2	5.4	0.8	1.3	0.0	0.3	0.2	0.0	0.3
LnGrp Delay(d),s/veh	29.2	0.0	9.1	38.3	12.8	9.1	29.6	0.0	18.3	41.4	0.0	22.6
LnGrp LOS	C		A	D	B	A	C		B	D		C
Approach Vol, veh/h		422			580			104			29	
Approach Delay, s/veh		12.6			12.6			27.1			27.2	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	29.1	7.4	9.4	7.2	26.5	4.5	12.4				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	2.3	8.2	4.3	3.4	4.0	12.0	2.2	2.7				
Green Ext Time (p_c), s	0.0	10.7	0.0	0.0	0.1	9.5	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.3									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions + Nishi Alt. 2
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	45	245	12	19	408	28	64	8	42	9	4	65
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.97	1.00		0.90	1.00		0.46
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	47	255	12	20	425	29	67	8	44	9	4	68
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	669	534	36	629	517	94	335	255	17	6	98
Arrive On Green	0.04	0.36	0.36	0.02	0.34	0.34	0.05	0.18	0.18	0.01	0.14	0.14
Sat Flow, veh/h	1774	1863	1487	1774	1863	1532	1774	1863	1418	1774	42	718
Grp Volume(v), veh/h	47	255	12	20	425	29	67	8	44	9	0	72
Grp Sat Flow(s),veh/h/ln	1774	1863	1487	1774	1863	1532	1774	1863	1418	1774	0	760
Q Serve(g_s), s	1.0	3.9	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.5
Cycle Q Clear(g_c), s	1.0	3.9	0.2	0.4	7.5	0.5	1.4	0.1	1.0	0.2	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.94
Lane Grp Cap(c), veh/h	73	669	534	36	629	517	94	335	255	17	0	104
V/C Ratio(X)	0.64	0.38	0.02	0.56	0.68	0.06	0.71	0.02	0.17	0.53	0.00	0.70
Avail Cap(c_a), veh/h	186	1486	1186	186	1486	1222	186	335	255	186	0	119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.1	9.1	7.9	18.6	10.9	8.5	17.8	12.9	13.3	18.8	0.0	15.8
Incr Delay (d2), s/veh	9.1	0.1	0.0	13.2	0.5	0.0	9.4	0.0	0.1	23.5	0.0	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.7	2.0	0.1	0.3	3.9	0.2	0.9	0.1	0.4	0.2	0.0	1.0
LnGrp Delay(d),s/veh	27.2	9.2	7.9	31.8	11.3	8.6	27.2	12.9	13.4	42.4	0.0	25.8
LnGrp LOS	C	A	A	C	B	A	C	B	B	D		C
Approach Vol, veh/h		314			474			119				81
Approach Delay, s/veh		11.9			12.0			21.1				27.6
Approach LOS		B			B			C				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	18.2	6.0	9.2	5.6	17.4	4.4	10.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	4.0	30.5	4.0	6.0	4.0	30.5	4.0	6.0				
Max Q Clear Time (g_c+I1), s	2.4	5.9	3.4	5.5	3.0	9.5	2.2	3.0				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	2.8	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			14.4									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions + Nishi Alt. 2
 AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	102	153	209	183	163	27	113	44	138	12	60	186
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	106	159	0	191	170	0	118	46	0	12	62	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	344	293	223	829	371	147	325	276	22	193	164
Arrive On Green	0.08	0.18	0.00	0.13	0.23	0.00	0.08	0.17	0.00	0.01	0.10	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	106	159	0	191	170	0	118	46	0	12	62	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.9	2.4	0.0	3.4	1.2	0.0	2.1	0.7	0.0	0.2	1.0	0.0
Cycle Q Clear(g_c), s	1.9	2.4	0.0	3.4	1.2	0.0	2.1	0.7	0.0	0.2	1.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	344	293	223	829	371	147	325	276	22	193	164
V/C Ratio(X)	0.78	0.46	0.00	0.86	0.21	0.00	0.80	0.14	0.00	0.53	0.32	0.00
Avail Cap(c_a), veh/h	223	936	796	223	1334	597	223	819	696	223	819	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.4	11.6	0.0	13.6	9.8	0.0	14.3	11.1	0.0	15.6	13.2	0.0
Incr Delay (d2), s/veh	9.4	0.4	0.0	26.6	0.0	0.0	11.4	0.1	0.0	18.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.2	1.3	0.0	3.2	0.6	0.0	1.5	0.3	0.0	0.2	0.5	0.0
LnGrp Delay(d),s/veh	23.8	11.9	0.0	40.2	9.9	0.0	25.8	11.2	0.0	33.9	13.6	0.0
LnGrp LOS	C	B		D	A		C	B		C	B	
Approach Vol, veh/h		265			361			164			74	
Approach Delay, s/veh		16.7			25.9			21.7			16.9	
Approach LOS		B			C			C			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.4	9.5	8.0	9.9	6.6	7.3	6.4	11.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	4.0	14.0	4.0	16.0	4.0	14.0	4.0	12.0				
Max Q Clear Time (g_c+I1), s	2.2	2.7	5.4	4.4	4.1	3.0	3.9	3.2				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.1	0.0	0.2	0.0	0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			21.5									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	30	0	14	1	4	2	1	25	137	2	1	188	144
Conflicting Peds, #/hr	0	0	2	0	0	0	0	0	0	2	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	0	15	1	4	2	1	26	143	2	1	196	150

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	474	474	276	478	548	144	360	348	0	0	145	0	0
Stage 1	275	275	-	196	198	-	-	-	-	-	-	-	-
Stage 2	199	199	-	282	350	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	-	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	-	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	501	489	763	498	444	903	-	1211	-	-	1437	-	-
Stage 1	731	683	-	806	737	-	-	-	-	-	-	-	-
Stage 2	803	736	-	725	633	-	-	-	-	-	-	-	-
Platoon blocked, %													
Mov Cap-1 Maneuver	495	488	760	487	443	903	~-27	~-27	-	-	1437	-	-
Mov Cap-2 Maneuver	495	488	-	487	443	-	-	-	-	-	-	-	-
Stage 1	731	681	-	806	737	-	-	-	-	-	-	-	-
Stage 2	797	736	-	709	632	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	11.9		0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	+	-	-	495	760	526	1437	-	-
HCM Lane V/C Ratio	-	-	-	0.063	0.019	0.014	0.001	-	-
HCM Control Delay (s)	-	-	-	12.8	9.8	11.9	7.5	-	-
HCM Lane LOS	-	-	-	B	A	B	A	-	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.1	0	0	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	78	69	27	0	36	168	4	0	31	115	38
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	81	72	28	0	38	175	4	0	32	120	40
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	9.9	10.8	10.3
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	75%	0%	72%	0%	98%	0%	33%
Vol Right, %	0%	25%	0%	28%	0%	2%	0%	67%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	153	78	96	36	172	2	186
LT Vol	31	0	78	0	36	0	2	0
Through Vol	0	115	0	69	0	168	0	61
RT Vol	0	38	0	27	0	4	0	125
Lane Flow Rate	32	159	81	100	38	179	2	194
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.058	0.256	0.146	0.16	0.067	0.293	0.004	0.296
Departure Headway (Hd)	6.474	5.792	6.466	5.761	6.413	5.891	6.484	5.502
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	554	620	555	623	560	611	553	653
Service Time	4.206	3.524	4.197	3.492	4.142	3.62	4.216	3.234
HCM Lane V/C Ratio	0.058	0.256	0.146	0.161	0.068	0.293	0.004	0.297
HCM Control Delay	9.6	10.5	10.3	9.6	9.6	11.1	9.2	10.5
HCM Lane LOS	A	B	B	A	A	B	A	B
HCM 95th-tile Q	0.2	1	0.5	0.6	0.2	1.2	0	1.2

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	2	61	125
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	2	64	130
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach NB

Opposing Lanes 2

Conflicting Approach Left WB

Conflicting Lanes Left 2

Conflicting Approach Right EB

Conflicting Lanes Right 2

HCM Control Delay 10.5

HCM LOS B

Lane

Intersection									
Intersection Delay, s/veh	9.4								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	72	118	0	82	128	0	162	56
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	75	123	0	85	133	0	169	58
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.5	9.4	10.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	74%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	26%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	218	72	118	82	128
LT Vol	162	0	0	82	0
Through Vol	0	72	0	0	128
RT Vol	56	0	118	0	0
Lane Flow Rate	227	75	123	85	133
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.309	0.112	0.159	0.138	0.196
Departure Headway (Hd)	4.903	5.352	4.646	5.808	5.304
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	731	667	768	615	673
Service Time	2.949	3.108	2.401	3.564	3.059
HCM Lane V/C Ratio	0.311	0.112	0.16	0.138	0.198
HCM Control Delay	10.1	8.8	8.3	9.5	9.4
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.3	0.4	0.6	0.5	0.7

Intersection												
Intersection Delay, s/veh	8.4											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	110	39	1	0	0	71	7	0	12	4	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	115	41	1	0	0	74	7	0	13	4	1
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	8.9	8.3	8.4
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	80%	0%	97%	100%	91%	0%	1%
Vol Right, %	0%	20%	0%	3%	0%	9%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	5	110	40	0	78	7	104
LT Vol	12	0	110	0	0	0	7	0
Through Vol	0	4	0	39	0	71	0	1
RT Vol	0	1	0	1	0	7	0	103
Lane Flow Rate	12	5	115	42	0	81	7	108
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.02	0.007	0.172	0.057	0	0.111	0.012	0.135
Departure Headway (Hd)	5.768	5.123	5.419	4.9	4.997	4.934	5.68	4.48
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	622	700	663	733	0	728	632	803
Service Time	3.489	2.845	3.138	2.619	2.719	2.656	3.395	2.195
HCM Lane V/C Ratio	0.019	0.007	0.173	0.057	0	0.111	0.011	0.134
HCM Control Delay	8.6	7.9	9.3	7.9	7.7	8.3	8.5	7.9
HCM Lane LOS	A	A	A	A	N	A	A	A
HCM 95th-tile Q	0.1	0	0.6	0.2	0	0.4	0	0.5

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	7	1	103
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	107
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	7.9
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 2.2

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	2	251	123	92	110	35	50
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	None	-	Yield
Storage Length	-	-	0	75	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	2	261	128	96	115	36	52

Major/Minor

	Major1			Major2		Minor1	
Conflicting Flow All	115	0	0	261	0	567	261
Stage 1	-	-	-	-	-	261	-
Stage 2	-	-	-	-	-	306	-
Critical Hdwy	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	1303	-	485	778
Stage 1	-	-	-	-	-	783	-
Stage 2	-	-	-	-	-	747	-
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1303	-	449	778
Mov Cap-2 Maneuver	-	-	-	-	-	449	-
Stage 1	-	-	-	-	-	783	-
Stage 2	-	-	-	-	-	692	-

Approach

	EB	WB	NB
HCM Control Delay, s		3.6	8.6
HCM LOS			A

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1090	-	-	1303	-
HCM Lane V/C Ratio	0.081	-	-	0.074	-
HCM Control Delay (s)	8.6	-	-	8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	14	275	1	195	54	15	8
Conflicting Peds, #/hr	0	0	0	0	2	0	1
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	125
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	15	286	1	203	56	16	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	260	0	286
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1304	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1304	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4		11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	-	490	806
HCM Lane V/C Ratio	0.011	-	-	-	0.032	0.01
HCM Control Delay (s)	7.8	-	-	-	12.6	9.5
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	45	192	269	94	18	16
Conflicting Peds, #/hr	0	0	0	5	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	200	280	98	19	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	379	0	624
Stage 1	-	-	330
Stage 2	-	-	294
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1179	-	449
Stage 1	-	-	728
Stage 2	-	-	756
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1179	-	428
Mov Cap-2 Maneuver	-	-	428
Stage 1	-	-	727
Stage 2	-	-	721

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1179	-	-	-	527
HCM Lane V/C Ratio	0.04	-	-	-	0.067
HCM Control Delay (s)	8.2	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection												
Intersection Delay, s/veh	11.3											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	32	154	0	9	30	0	0	359	18	13
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	4	33	160	0	9	31	0	0	374	19	14
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.1	8.7	12.9
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	92%	2%	23%	0%
Vol Thru, %	5%	17%	77%	14%
Vol Right, %	3%	81%	0%	86%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	390	190	39	21
LT Vol	359	4	9	0
Through Vol	18	32	30	3
RT Vol	13	154	0	18
Lane Flow Rate	406	198	41	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.528	0.25	0.06	0.027
Departure Headway (Hd)	4.677	4.549	5.273	4.464
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	768	788	676	795
Service Time	2.723	2.591	3.331	2.53
HCM Lane V/C Ratio	0.529	0.251	0.061	0.028
HCM Control Delay	12.9	9.1	8.7	7.7
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	3.1	1	0.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	3	18
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	3	19
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.7
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	11.1											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	293	0	49	0	0	0	0	1	0	53	11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	305	0	51	0	0	0	0	1	0	55	11
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	3	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	12.3	9.2
HCM LOS	B	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	83%	0%	0%	0%	100%	100%
Vol Right, %	17%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	293	49	40	32	32
LT Vol	0	293	0	40	0	0
Through Vol	54	0	0	0	32	32
RT Vol	11	0	49	0	0	0
Lane Flow Rate	68	305	51	42	33	33
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.108	0.468	0.061	0.071	0.051	0.035
Departure Headway (Hd)	5.72	5.521	4.32	6.096	5.591	3.842
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	624	650	825	587	640	928
Service Time	3.474	3.266	2.065	3.837	3.333	1.583
HCM Lane V/C Ratio	0.109	0.469	0.062	0.072	0.052	0.036
HCM Control Delay	9.2	13.1	7.3	9.3	8.6	6.7
HCM Lane LOS	A	B	A	A	A	A
HCM 95th-tile Q	0.4	2.5	0.2	0.2	0.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	40	63	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	42	66	0
Number of Lanes	0	1	2	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	8.3
HCM LOS	A

Lane

Intersection

Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	0	0	0	32	2	424	0	25	322	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	33	2	442	0	26	335	0
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0

Approach

	WB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	NB	
Conflicting Lanes Left	3	0
Conflicting Approach Right	SB	WB
Conflicting Lanes Right	3	2
HCM Control Delay	15.6	9.9
HCM LOS	C	A

Lane

	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	97%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	3%	0%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	161	161	33	425	37	37	33
LT Vol	25	0	0	32	0	0	0	0
Through Vol	0	161	161	1	1	37	37	0
RT Vol	0	0	0	0	424	0	0	33
Lane Flow Rate	26	168	168	34	443	38	38	34
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.049	0.29	0.208	0.06	0.628	0.071	0.071	0.041
Departure Headway (Hd)	6.742	6.234	4.47	6.284	5.104	6.728	6.728	4.243
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	531	577	802	571	708	532	532	840
Service Time	4.482	3.973	2.209	4.014	2.835	4.476	4.476	1.99
HCM Lane V/C Ratio	0.049	0.291	0.209	0.06	0.626	0.071	0.071	0.04
HCM Control Delay	9.8	11.5	8.4	9.4	16.1	10	10	7.2
HCM Lane LOS	A	B	A	A	C	A	A	A
HCM 95th-tile Q	0.2	1.2	0.8	0.2	4.5	0.2	0.2	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	73	33
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	76	34
Number of Lanes	0	0	2	1

Approach SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	
Conflicting Lanes Right	0
HCM Control Delay	9.1
HCM LOS	A

Lane

Intersection			
Intersection Delay, s/veh	15.8		
Intersection LOS	C		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	777	161	182
Demand Flow Rate, veh/h	792	164	185
Vehicles Circulating, veh/h	126	331	53
Vehicles Exiting, veh/h	112	587	442
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	20.2	6.7	5.0
Approach LOS	C	A	A
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	792	164	185
Cap Entry Lane, veh/h	996	812	1072
Entry HV Adj Factor	0.981	0.981	0.984
Flow Entry, veh/h	777	161	182
Cap Entry, veh/h	977	796	1054
V/C Ratio	0.795	0.202	0.173
Control Delay, s/veh	20.2	6.7	5.0
LOS	C	A	A
95th %tile Queue, veh	9	1	1

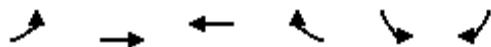
Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	281	272	22	143	11	4
Conflicting Peds, #/hr	0	6	0	0	0	13
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	0	-	75	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	293	283	23	149	11	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	642
Stage 1	-	-	447
Stage 2	-	-	195
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	986	438
Stage 1	-	-	644
Stage 2	-	-	838
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	986	421
Mov Cap-2 Maneuver	-	-	421
Stage 1	-	-	637
Stage 2	-	-	814

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	13.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	421	605	-	-	986	-
HCM Lane V/C Ratio	0.027	0.007	-	-	0.023	-
HCM Control Delay (s)	13.8	11	-	-	8.7	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	65	221	120	11	22	46
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.91			0.86	1.00	0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	68	230	125	11	23	48
Adj No. of Lanes	1	1	1	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	384	432	386	34	258	539
Arrive On Green	0.23	0.23	0.23	0.23	0.56	0.56
Sat Flow, veh/h	1140	1863	1663	146	464	969
Grp Volume(v), veh/h	68	230	0	136	72	0
Grp Sat Flow(s),veh/h/ln	1140	1863	0	1809	1454	0
Q Serve(g_s), s	2.0	4.1	0.0	2.4	0.9	0.0
Cycle Q Clear(g_c), s	4.3	4.1	0.0	2.4	0.9	0.0
Prop In Lane	1.00			0.08	0.32	0.67
Lane Grp Cap(c), veh/h	384	432	0	420	808	0
V/C Ratio(X)	0.18	0.53	0.00	0.32	0.09	0.00
Avail Cap(c_a), veh/h	906	1284	0	767	1002	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.8	12.7	0.0	12.0	3.9	0.0
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	2.2	0.0	1.2	0.4	0.0
LnGrp Delay(d),s/veh	14.0	13.7	0.0	12.5	4.0	0.0
LnGrp LOS	B	B		B	A	
Approach Vol, veh/h		298	136		72	
Approach Delay, s/veh		13.8	12.5		4.0	
Approach LOS		B	B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				12.8		25.0		12.8
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				6.3		2.9		4.4
Green Ext Time (p_c), s				2.4		0.2		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Notes
User approved volume balancing among the lanes for turning movement.

Intersection

Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	2	23	157	59	1	55	125	9	0	2	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	24	164	61	1	57	130	9	0	2	2	1
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	8.8	8.4	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	40%	100%	0%	100%	0%
Vol Thru, %	40%	0%	73%	0%	93%
Vol Right, %	20%	0%	27%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	5	25	216	56	134
LT Vol	2	25	0	56	0
Through Vol	2	0	157	0	125
RT Vol	1	0	59	0	9
Lane Flow Rate	5	26	225	58	140
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.007	0.037	0.278	0.084	0.179
Departure Headway (Hd)	4.901	5.141	4.449	5.165	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	735	693	803	690	772
Service Time	2.901	2.897	2.205	2.922	2.374
HCM Lane V/C Ratio	0.007	0.038	0.28	0.084	0.181
HCM Control Delay	7.9	8.1	8.9	8.4	8.4
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.1	1.1	0.3	0.6

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach

Opposing Lanes

Conflicting Approach Left

Conflicting Lanes Left

Conflicting Approach Right

Conflicting Lanes Right

HCM Control Delay

HCM LOS

Lane

Intersection













Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	11	151	186	1	6	6
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	157	194	1	6	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	195	0	194
Stage 1	-	-	194
Stage 2	-	-	180
Critical Hdwy	4.12	-	6.22
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	1378	-	847
Stage 1	-	-	839
Stage 2	-	-	851
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1378	-	847
Mov Cap-2 Maneuver	-	-	668
Stage 1	-	-	839
Stage 2	-	-	844



















Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1378	-	-	-	747
HCM Lane V/C Ratio	0.008	-	-	-	0.017
HCM Control Delay (s)	7.6	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

								
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations								
Volume (veh/h)	138	78	70	344	273	133		
Number	5	12	3	8	4	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.99		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	1863	1792	1863	1863		
Adj Flow Rate, veh/h	147	83	74	366	290	141		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94		
Percent Heavy Veh, %	2	2	2	6	2	2		
Cap, veh/h	284	253	135	955	610	511		
Arrive On Green	0.16	0.16	0.08	0.53	0.33	0.33		
Sat Flow, veh/h	1774	1583	1774	1792	1863	1562		
Grp Volume(v), veh/h	147	83	74	366	290	141		
Grp Sat Flow(s),veh/h/ln	1774	1583	1774	1792	1863	1562		
Q Serve(g_s), s	2.3	1.4	1.2	3.7	3.8	2.1		
Cycle Q Clear(g_c), s	2.3	1.4	1.2	3.7	3.8	2.1		
Prop In Lane	1.00	1.00	1.00			1.00		
Lane Grp Cap(c), veh/h	284	253	135	955	610	511		
V/C Ratio(X)	0.52	0.33	0.55	0.38	0.48	0.28		
Avail Cap(c_a), veh/h	1148	1024	918	1768	1235	1035		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	11.9	11.5	13.8	4.2	8.3	7.7		
Incr Delay (d2), s/veh	1.5	0.7	3.4	0.3	0.6	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	1.3	0.7	0.7	1.8	2.0	0.9		
LnGrp Delay(d),s/veh	13.4	12.3	17.2	4.5	8.9	8.0		
LnGrp LOS	B	B	B	A	A	A		
Approach Vol, veh/h	230			440	431			
Approach Delay, s/veh	13.0			6.6	8.6			
Approach LOS	B			A	A			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4				8
Phs Duration (G+Y+Rc), s		9.9	6.4	14.6				21.0
Change Period (Y+Rc), s		5.0	4.0	4.5				4.5
Max Green Setting (Gmax), s		20.0	16.0	20.5				30.5
Max Q Clear Time (g_c+I1), s		4.3	3.2	5.8				5.7
Green Ext Time (p_c), s		0.6	0.1	4.2				5.0
Intersection Summary								
HCM 2010 Ctrl Delay	8.7							
HCM 2010 LOS	A							





















HCM 2010 Signalized Intersection Summary
55: B St & E 8th St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	228	46	44	165	2	59	133	59	17	88	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.90	0.99		0.78
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1845	1863	1900	1900	1812	1900	1900	1861	1900
Adj Flow Rate, veh/h	11	243	49	47	176	2	63	141	63	18	94	3
Adj No. of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	3	2	2	2	2	2	2	2	2
Cap, veh/h	97	1039	855	698	1043	12	165	239	94	126	401	12
Arrive On Green	0.57	0.57	0.57	0.57	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	21	1830	1505	1070	1837	21	254	957	374	124	1604	46
Grp Volume(v), veh/h	254	0	49	47	0	178	267	0	0	115	0	0
Grp Sat Flow(s),veh/h/ln	1851	0	1505	1070	0	1858	1584	0	0	1774	0	0
Q Serve(g_s), s	0.0	0.0	0.6	1.0	0.0	2.0	3.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.0	0.0	0.6	4.0	0.0	2.0	6.5	0.0	0.0	2.2	0.0	0.0
Prop In Lane	0.04		1.00	1.00		0.01	0.24		0.24	0.16		0.03
Lane Grp Cap(c), veh/h	1137	0	855	698	0	1055	498	0	0	538	0	0
V/C Ratio(X)	0.22	0.00	0.06	0.07	0.00	0.17	0.54	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	1180	0	890	724	0	1099	848	0	0	921	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.8	0.0	4.2	5.8	0.0	4.5	14.7	0.0	0.0	13.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.1	0.9	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.5	0.0	0.3	0.3	0.0	1.0	3.0	0.0	0.0	1.1	0.0	0.0
LnGrp Delay(d),s/veh	4.9	0.0	4.3	5.8	0.0	4.6	15.6	0.0	0.0	13.4	0.0	0.0
LnGrp LOS	A		A	A		A	B			B		
Approach Vol, veh/h		303			225			267			115	
Approach Delay, s/veh		4.8			4.9			15.6			13.4	
Approach LOS		A			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.0		29.0		15.0		29.0				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		21.0		26.0		21.0		26.0				
Max Q Clear Time (g_c+I1), s		8.5		5.0		4.2		6.0				
Green Ext Time (p_c), s		2.0		3.0		2.2		3.0				
Intersection Summary												
HCM 2010 Ctrl Delay			9.1									
HCM 2010 LOS			A									



















HCM 2010 Signalized Intersection Summary
54: F St & E 8th St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	255	27	27	147	89	41	313	29	80	266	28
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.96	1.00		0.89	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1860	1900	1900	1842	1900	1681	1776	1759	1863	1863	1863
Adj Flow Rate, veh/h	26	271	29	29	156	95	44	333	31	85	283	30
Adj No. of Lanes	0	1	0	0	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	13	7	8	2	2	2
Cap, veh/h	115	484	49	122	316	175	77	569	428	134	648	459
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.05	0.32	0.32	0.08	0.35	0.35
Sat Flow, veh/h	67	1546	157	83	1008	560	1601	1776	1336	1774	1863	1320
Grp Volume(v), veh/h	326	0	0	280	0	0	44	333	31	85	283	30
Grp Sat Flow(s),veh/h/ln	1770	0	0	1651	0	0	1601	1776	1336	1774	1863	1320
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.5	0.7	1.9	4.8	0.6
Cycle Q Clear(g_c), s	6.2	0.0	0.0	5.5	0.0	0.0	1.1	6.5	0.7	1.9	4.8	0.6
Prop In Lane	0.08		0.09	0.10		0.34	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	649	0	0	614	0	0	77	569	428	134	648	459
V/C Ratio(X)	0.50	0.00	0.00	0.46	0.00	0.00	0.57	0.59	0.07	0.63	0.44	0.07
Avail Cap(c_a), veh/h	1196	0	0	1120	0	0	621	1335	1005	688	1401	993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	0.0	11.6	0.0	0.0	19.2	11.7	9.8	18.5	10.3	9.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.5	0.0	0.0	6.5	1.0	0.1	4.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	3.2	0.0	0.0	2.7	0.0	0.0	0.6	3.3	0.2	1.1	2.5	0.2
LnGrp Delay(d),s/veh	12.5	0.0	0.0	12.2	0.0	0.0	25.8	12.7	9.8	23.4	10.8	9.0
LnGrp LOS	B			B			C	B	A	C	B	A
Approach Vol, veh/h		326			280			408			398	
Approach Delay, s/veh		12.5			12.2			13.9			13.4	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	17.2		16.9	6.0	18.3		16.9				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	16.0	31.0		26.0	16.0	31.0		26.0				
Max Q Clear Time (g_c+I1), s	3.9	8.5		8.2	3.1	6.8		7.5				
Green Ext Time (p_c), s	0.1	4.3		3.9	0.1	4.4		3.9				
Intersection Summary												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									



























HCM 2010 Signalized Intersection Summary
49: Russell Blvd & Sycamore Ln

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	223	431	0	0	579	68	0	0	0	79	0	161
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.82	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	0	1863	0	1863	0	1863
Adj Flow Rate, veh/h	237	459	0	0	616	72	0	0	0	84	0	171
Adj No. of Lanes	1	2	0	0	2	0	0	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	0	2	0	2	0	2
Cap, veh/h	297	2122	0	0	1022	119	0	4	0	301	0	0
Arrive On Green	0.17	0.60	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.17	0.00	0.00
Sat Flow, veh/h	1774	3632	0	0	3204	362	0	-111765	0	1774	84	
Grp Volume(v), veh/h	237	459	0	0	349	339	0	0	0	84	17.5	
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1704	0	1863	0	1774	B	
Q Serve(g_s), s	6.1	2.8	0.0	0.0	7.8	7.9	0.0	0.0	0.0	1.9		
Cycle Q Clear(g_c), s	6.1	2.8	0.0	0.0	7.8	7.9	0.0	0.0	0.0	1.9		
Prop In Lane	1.00		0.00	0.00		0.21	0.00		0.00	1.00		
Lane Grp Cap(c), veh/h	297	2122	0	0	581	560	0	4	0	301		
V/C Ratio(X)	0.80	0.22	0.00	0.00	0.60	0.61	0.00	0.00	0.00	0.28		
Avail Cap(c_a), veh/h	567	2256	0	0	1128	1086	0	750	0	714		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(l)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00		
Uniform Delay (d), s/veh	18.9	4.4	0.0	0.0	13.3	13.3	0.0	0.0	0.0	17.1		
Incr Delay (d2), s/veh	1.9	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(-26165%),veh/ln	3.1	1.3	0.0	0.0	3.8	3.7	0.0	0.0	0.0	1.0		
LnGrp Delay(d),s/veh	20.8	4.4	0.0	0.0	13.6	13.7	0.0	0.0	0.0	17.5		
LnGrp LOS	C	A			B	B				B		
Approach Vol, veh/h		696			688			0				
Approach Delay, s/veh		10.0			13.7			0.0				
Approach LOS		A			B							
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2			5	6	7	8				
Phs Duration (G+Y+Rc), s		33.2			12.8	20.4	14.0	0.0				
Change Period (Y+Rc), s		4.9			4.9	4.9	6.0	6.0				
Max Green Setting (Gmax), s		30.1			15.1	30.1	19.0	19.0				
Max Q Clear Time (g_c+I1), s		4.8			8.1	9.9	3.9	0.0				
Green Ext Time (p_c), s		4.1			0.2	3.9	0.1	0.0				
Intersection Summary												
HCM 2010 Ctrl Delay				12.1								
HCM 2010 LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
48: La Rue Rd/Anderson Rd & Russell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 		 	 			 			 	
Volume (veh/h)	77	393	40	172	561	109	153	250	350	142	116	44
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.84	1.00		1.00	1.00		0.75
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	82	418	0	183	597	116	163	266	0	151	123	47
Adj No. of Lanes	1	2	0	2	2	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	1004	0	280	1081	405	206	777	0	192	504	169
Arrive On Green	0.06	0.28	0.00	0.08	0.31	0.31	0.12	0.22	0.00	0.11	0.21	0.21
Sat Flow, veh/h	1774	3632	0	3442	3539	1325	1774	3632	0	1774	2381	797
Grp Volume(v), veh/h	82	418	0	183	597	116	163	266	0	151	87	83
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1721	1770	1325	1774	1770	0	1774	1770	1408
Q Serve(g_s), s	3.0	6.2	0.0	3.4	9.2	4.3	5.8	4.1	0.0	5.4	2.7	3.2
Cycle Q Clear(g_c), s	3.0	6.2	0.0	3.4	9.2	4.3	5.8	4.1	0.0	5.4	2.7	3.2
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.57
Lane Grp Cap(c), veh/h	105	1004	0	280	1081	405	206	777	0	192	374	298
V/C Ratio(X)	0.78	0.42	0.00	0.65	0.55	0.29	0.79	0.34	0.00	0.78	0.23	0.28
Avail Cap(c_a), veh/h	273	1631	0	529	1631	611	545	816	0	545	408	325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	18.9	0.0	29.0	18.9	17.2	28.0	21.4	0.0	28.3	21.3	21.5
Incr Delay (d2), s/veh	4.6	0.1	0.0	1.0	0.2	0.1	2.6	0.1	0.0	2.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.6	3.0	0.0	1.6	4.5	1.6	3.0	2.0	0.0	2.8	1.3	1.3
LnGrp Delay(d),s/veh	34.8	19.0	0.0	30.0	19.0	17.3	30.6	21.5	0.0	30.9	21.4	21.7
LnGrp LOS	C	B		C	B	B	C	C		C	C	C
Approach Vol, veh/h		500			896			429			321	
Approach Delay, s/veh		21.6			21.1			25.0			26.0	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	23.5	12.6	18.8	8.9	24.9	12.1	19.3				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	10.0	30.0	20.0	15.0	10.0	30.0	20.0	15.0				
Max Q Clear Time (g_c+I1), s	5.4	8.2	7.8	5.2	5.0	11.2	7.4	6.1				
Green Ext Time (p_c), s	0.1	5.2	0.2	1.4	0.0	5.0	0.2	1.3				
Intersection Summary												
HCM 2010 Ctrl Delay			22.7									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	842	62	24	879	0	166
Conflicting Peds, #/hr	0	31	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	-	0
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	896	66	26	935	0	177






















Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1448
Stage 1	-	-	929
Stage 2	-	-	519
Critical Hdwy	-	4.14	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	-	2.22	3.52
Pot Cap-1 Maneuver	-	711	122
Stage 1	-	-	345
Stage 2	-	-	562
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	711	115
Mov Cap-2 Maneuver	-	-	240
Stage 1	-	-	345
Stage 2	-	-	527

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	711	-
HCM Lane V/C Ratio	0.333	-	-	0.036	-
HCM Control Delay (s)	15.1	-	-	10.3	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	1.4	-	-	0.1	-




















HCM 2010 Signalized Intersection Summary
46: Howard Way/College Park & Russell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	786	77	74	646	18	173	3	151	6	0	11
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.91	1.00		0.94	1.00		0.91	1.00		0.55
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	17	836	82	79	687	19	184	3	161	6	0	12
Adj No. of Lanes	1	2	0	1	2	0	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1194	117	111	1462	40	347	5	276	60	63	29
Arrive On Green	0.02	0.37	0.37	0.06	0.42	0.42	0.20	0.20	0.20	0.03	0.00	0.03
Sat Flow, veh/h	1774	3225	316	1774	3511	97	1774	26	1413	1774	1863	878
Grp Volume(v), veh/h	17	459	459	79	346	360	184	0	164	6	0	12
Grp Sat Flow(s),veh/h/ln	1774	1770	1771	1774	1770	1838	1774	0	1440	1774	1863	878
Q Serve(g_s), s	0.5	12.5	12.5	2.5	8.1	8.1	5.3	0.0	5.9	0.2	0.0	0.8
Cycle Q Clear(g_c), s	0.5	12.5	12.5	2.5	8.1	8.1	5.3	0.0	5.9	0.2	0.0	0.8
Prop In Lane	1.00		0.18	1.00		0.05	1.00		0.98	1.00		1.00
Lane Grp Cap(c), veh/h	29	655	656	111	737	766	347	0	281	60	63	29
V/C Ratio(X)	0.58	0.70	0.70	0.71	0.47	0.47	0.53	0.00	0.58	0.10	0.00	0.41
Avail Cap(c_a), veh/h	250	934	935	250	934	971	962	0	780	905	951	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.7	15.2	15.2	26.1	12.0	12.0	20.5	0.0	20.8	26.6	0.0	26.9
Incr Delay (d2), s/veh	33.1	0.5	0.5	3.1	0.2	0.2	0.5	0.0	0.7	0.3	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	6.1	6.1	1.3	4.0	4.1	2.6	0.0	2.4	0.1	0.0	0.2
LnGrp Delay(d),s/veh	60.8	15.7	15.7	29.2	12.2	12.2	21.0	0.0	21.5	26.9	0.0	30.2
LnGrp LOS	E	B	B	C	B	B	C		C	C		C
Approach Vol, veh/h		935			785			348			18	
Approach Delay, s/veh		16.5			13.9			21.2			29.1	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	26.0		7.9	4.9	28.7		15.3				
Change Period (Y+Rc), s	4.0	5.0		6.0	4.0	5.0		4.2				
Max Green Setting (Gmax), s	8.0	30.0		29.0	8.0	30.0		30.8				
Max Q Clear Time (g_c+I1), s	4.5	14.5		2.8	2.5	10.1		7.9				
Green Ext Time (p_c), s	0.0	6.5		0.0	0.0	7.3		0.7				
Intersection Summary												
HCM 2010 Ctrl Delay				16.4								
HCM 2010 LOS				B								

























HCM 2010 Signalized Intersection Summary
45: A St & Russell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	945	0	0	595	12	128	16	25	13	0	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.95	1.00		0.94	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1900	1863	1863	1900	1863	0	1863
Adj Flow Rate, veh/h	22	1005	0	0	633	13	136	17	27	14	0	18
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2	2	0	2
Cap, veh/h	533	2021	0	0	2023	42	403	141	224	0	0	0
Arrive On Green	0.57	0.57	0.00	0.00	0.57	0.57	0.23	0.23	0.23	0.00	0.00	0.00
Sat Flow, veh/h	778	3632	0	0	3635	73	1774	622	988		0	
Grp Volume(v), veh/h	22	1005	0	0	316	330	136	0	44		0.0	
Grp Sat Flow(s),veh/h/ln	778	1770	0	0	1770	1845	1774	0	1610			
Q Serve(g_s), s	0.7	7.6	0.0	0.0	4.2	4.2	2.9	0.0	1.0			
Cycle Q Clear(g_c), s	4.8	7.6	0.0	0.0	4.2	4.2	2.9	0.0	1.0			
Prop In Lane	1.00		0.00	0.00		0.04	1.00		0.61			
Lane Grp Cap(c), veh/h	533	2021	0	0	1011	1054	403	0	365			
V/C Ratio(X)	0.04	0.50	0.00	0.00	0.31	0.31	0.34	0.00	0.12			
Avail Cap(c_a), veh/h	892	3653	0	0	1827	1904	796	0	722			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.3	5.7	0.0	0.0	5.0	5.0	14.4	0.0	13.7			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(-26165%),veh/ln	0.1	3.7	0.0	0.0	2.1	2.2	1.4	0.0	0.4			
LnGrp Delay(d),s/veh	6.3	5.9	0.0	0.0	5.2	5.2	14.6	0.0	13.7			
LnGrp LOS	A	A			A	A	B		B			
Approach Vol, veh/h		1027			646			180				
Approach Delay, s/veh		5.9			5.2			14.4				
Approach LOS		A			A			B				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		29.5				29.5		15.1				
Change Period (Y+Rc), s		4.0				4.0		5.0				
Max Green Setting (Gmax), s		46.0				46.0		20.0				
Max Q Clear Time (g_c+I1), s		9.6				6.2		4.9				
Green Ext Time (p_c), s		15.9				16.4		0.3				
Intersection Summary												
HCM 2010 Ctrl Delay			6.5									
HCM 2010 LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												





















HCM 2010 Signalized Intersection Summary
44: B St & Russell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Volume (veh/h)	38	435	471	65	415	58	149	139	85	23	156	17
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.92	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	40	463	0	69	441	0	159	148	90	24	166	18
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	92	1158	0	134	1242	0	210	500	390	61	300	33
Arrive On Green	0.05	0.33	0.00	0.08	0.35	0.00	0.12	0.27	0.27	0.03	0.18	0.18
Sat Flow, veh/h	1774	3632	0	1774	3632	0	1774	1863	1454	1774	1628	177
Grp Volume(v), veh/h	40	463	0	69	441	0	159	148	90	24	0	184
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1770	0	1774	1863	1454	1774	0	1805
Q Serve(g_s), s	1.0	4.8	0.0	1.8	4.4	0.0	4.1	3.0	2.3	0.6	0.0	4.4
Cycle Q Clear(g_c), s	1.0	4.8	0.0	1.8	4.4	0.0	4.1	3.0	2.3	0.6	0.0	4.4
Prop In Lane	1.00		0.00	1.00		0.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	92	1158	0	134	1242	0	210	500	390	61	0	332
V/C Ratio(X)	0.44	0.40	0.00	0.52	0.36	0.00	0.76	0.30	0.23	0.39	0.00	0.55
Avail Cap(c_a), veh/h	430	2720	0	430	2720	0	616	647	505	616	0	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	12.4	0.0	21.1	11.4	0.0	20.3	13.8	13.6	22.5	0.0	17.6
Incr Delay (d2), s/veh	1.2	0.1	0.0	1.1	0.1	0.0	5.5	0.1	0.1	1.5	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.5	2.3	0.0	0.9	2.2	0.0	2.3	1.5	0.9	0.3	0.0	2.2
LnGrp Delay(d),s/veh	23.1	12.5	0.0	22.3	11.5	0.0	25.7	13.9	13.7	24.0	0.0	18.1
LnGrp LOS	C	B		C	B		C	B	B	C		B
Approach Vol, veh/h		503			510			397			208	
Approach Delay, s/veh		13.3			13.0			18.6			18.8	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.1	19.0	9.1	12.2	6.0	20.2	5.1	16.2				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	11.5	36.5	16.5	16.5	11.5	36.5	16.5	16.5				
Max Q Clear Time (g_c+I1), s	3.8	6.8	6.1	6.4	3.0	6.4	2.6	5.0				
Green Ext Time (p_c), s	0.0	4.5	0.3	1.1	0.0	4.5	0.0	1.2				
Intersection Summary												
HCM 2010 Ctrl Delay			15.2									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												






















HCM 2010 Signalized Intersection Summary
43: F St & E 5th St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	63	428	36	50	387	64	47	188	40	48	204	60
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.85	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1782	1900	1863	1847	1900	1776	1800	1900	1863	1863	1900
Adj Flow Rate, veh/h	67	455	38	53	412	68	50	200	43	51	217	64
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	7	7	2	3	3	7	5	5	2	2	2
Cap, veh/h	83	835	70	118	815	135	67	275	59	71	259	77
Arrive On Green	0.05	0.52	0.52	0.13	1.00	1.00	0.04	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1533	1613	135	1774	1538	254	1691	1389	299	1774	1309	386
Grp Volume(v), veh/h	67	0	493	53	0	480	50	0	243	51	0	281
Grp Sat Flow(s),veh/h/ln	1533	0	1748	1774	0	1792	1691	0	1688	1774	0	1695
Q Serve(g_s), s	3.9	0.0	17.0	2.5	0.0	0.0	2.6	0.0	12.1	2.6	0.0	14.3
Cycle Q Clear(g_c), s	3.9	0.0	17.0	2.5	0.0	0.0	2.6	0.0	12.1	2.6	0.0	14.3
Prop In Lane	1.00		0.08	1.00		0.14	1.00		0.18	1.00		0.23
Lane Grp Cap(c), veh/h	83	0	905	118	0	950	67	0	334	71	0	336
V/C Ratio(X)	0.81	0.00	0.54	0.45	0.00	0.51	0.75	0.00	0.73	0.72	0.00	0.84
Avail Cap(c_a), veh/h	119	0	905	118	0	950	94	0	356	99	0	358
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.00	0.74	0.83	0.00	0.83	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.1	0.0	14.6	37.5	0.0	0.0	42.8	0.0	33.8	42.7	0.0	34.7
Incr Delay (d2), s/veh	11.5	0.0	1.8	0.8	0.0	1.6	10.1	0.0	5.7	6.9	0.0	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.9	0.0	8.7	1.2	0.0	0.4	1.4	0.0	6.2	1.4	0.0	8.0
LnGrp Delay(d),s/veh	53.6	0.0	16.3	38.3	0.0	1.6	52.9	0.0	39.6	49.6	0.0	48.6
LnGrp LOS	D		B	D		A	D		D	D		D
Approach Vol, veh/h		560			533			293			332	
Approach Delay, s/veh		20.8			5.2			41.8			48.8	
Approach LOS		C			A			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	50.6	7.6	21.8	8.9	51.7	7.6	21.8				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	6.0	44.0	5.0	19.0	7.0	43.0	5.0	19.0				
Max Q Clear Time (g_c+I1), s	4.5	19.0	4.6	16.3	5.9	2.0	4.6	14.1				
Green Ext Time (p_c), s	0.0	9.9	0.0	0.7	0.0	11.9	0.0	1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			25.0									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary
42: G St & E 5th St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	37	433	45	55	415	28	49	92	36	36	46	37
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.91	1.00		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1610	1794	1900	1863	1855	1900	1681	1780	1900	1827	1616	1900
Adj Flow Rate, veh/h	39	461	48	59	441	30	52	98	38	38	49	39
Adj No. of Lanes	1	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	18	6	6	2	2	2	13	7	7	4	14	14
Cap, veh/h	111	767	80	128	827	56	98	270	105	106	172	137
Arrive On Green	0.14	0.97	0.97	0.07	0.48	0.48	0.06	0.23	0.23	0.06	0.23	0.23
Sat Flow, veh/h	1533	1587	165	1774	1712	116	1601	1184	459	1740	754	600
Grp Volume(v), veh/h	39	0	509	59	0	471	52	0	136	38	0	88
Grp Sat Flow(s),veh/h/ln	1533	0	1753	1774	0	1828	1601	0	1643	1740	0	1355
Q Serve(g_s), s	2.1	0.0	2.1	2.9	0.0	16.1	2.8	0.0	6.3	1.9	0.0	4.8
Cycle Q Clear(g_c), s	2.1	0.0	2.1	2.9	0.0	16.1	2.8	0.0	6.3	1.9	0.0	4.8
Prop In Lane	1.00		0.09	1.00		0.06	1.00		0.28	1.00		0.44
Lane Grp Cap(c), veh/h	111	0	847	128	0	884	98	0	374	106	0	309
V/C Ratio(X)	0.35	0.00	0.60	0.46	0.00	0.53	0.53	0.00	0.36	0.36	0.00	0.29
Avail Cap(c_a), veh/h	111	0	847	128	0	884	98	0	374	106	0	309
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	0.8	40.1	0.0	16.2	41.0	0.0	29.3	40.6	0.0	28.7
Incr Delay (d2), s/veh	8.6	0.0	3.1	11.5	0.0	2.3	19.1	0.0	2.7	9.1	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.1	0.0	1.3	1.8	0.0	8.7	1.8	0.0	3.1	1.2	0.0	2.0
LnGrp Delay(d),s/veh	45.2	0.0	4.0	51.5	0.0	18.5	60.1	0.0	32.0	49.7	0.0	31.0
LnGrp LOS	D		A	D		B	E		C	D		C
Approach Vol, veh/h		548			530			188			126	
Approach Delay, s/veh		6.9			22.2			39.8			36.6	
Approach LOS		A			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	47.0	9.0	24.0	10.0	47.0	9.0	24.0				
Change Period (Y+Rc), s	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5				
Max Green Setting (Gmax), s	6.5	43.5	5.5	20.5	6.5	43.5	5.5	20.5				
Max Q Clear Time (g_c+I1), s	4.9	4.1	4.8	6.8	4.1	18.1	3.9	8.3				
Green Ext Time (p_c), s	0.0	11.8	0.0	0.8	0.0	10.0	0.0	0.7				
Intersection Summary												
HCM 2010 Ctrl Delay			19.8									
HCM 2010 LOS			B									

Intersection												
Intersection Delay, s/veh	10.8											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	45	77	21	0	19	52	42	0	13	171	43
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	48	82	22	0	20	55	45	0	14	182	46
Number of Lanes	0	0	1	0	0	0	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	1
HCM Control Delay	10.3	9.7	11.1
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	31%	17%	100%	0%
Vol Thru, %	0%	80%	54%	46%	0%	83%
Vol Right, %	0%	20%	15%	37%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	13	214	143	113	30	240
LT Vol	13	0	45	19	30	0
Through Vol	0	171	77	52	0	200
RT Vol	0	43	21	42	0	40
Lane Flow Rate	14	228	152	120	32	255
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.024	0.35	0.234	0.181	0.054	0.39
Departure Headway (Hd)	6.182	5.534	5.531	5.434	6.124	5.5
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	580	651	650	660	586	656
Service Time	3.909	3.261	3.565	3.47	3.85	3.226
HCM Lane V/C Ratio	0.024	0.35	0.234	0.182	0.055	0.389
HCM Control Delay	9.1	11.2	10.3	9.7	9.2	11.7
HCM Lane LOS	A	B	B	A	A	B
HCM 95th-tile Q	0.1	1.6	0.9	0.7	0.2	1.8

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	200	40
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	213	43
Number of Lanes	0	1	1	0






















Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.4
HCM LOS	B

Lane



















HCM 2010 Signalized Intersection Summary
95: La Rue Rd & Orchard Rd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	75	5	27	52	9	71	28	602	62	27	254	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		0.70	0.99		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	80	5	29	55	10	76	30	640	66	29	270	53
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	5	748	134	14	778	429	1081	111	269	998	189
Arrive On Green	0.50	0.50	0.50	0.50	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	14	10	1504	13	29	1564	1051	3098	318	733	2859	542
Grp Volume(v), veh/h	85	0	29	65	0	76	30	364	342	29	163	160
Grp Sat Flow(s),veh/h/ln	24	0	1504	42	0	1564	1051	1770	1647	733	1770	1631
Q Serve(g_s), s	0.3	0.0	0.5	0.3	0.0	1.3	1.1	8.8	8.9	1.8	3.4	3.7
Cycle Q Clear(g_c), s	25.9	0.0	0.5	25.9	0.0	1.3	4.9	8.8	8.9	10.6	3.4	3.7
Prop In Lane	0.94		1.00	0.85		1.00	1.00		0.19	1.00		0.33
Lane Grp Cap(c), veh/h	146	0	748	149	0	778	429	618	575	269	618	569
V/C Ratio(X)	0.58	0.00	0.04	0.44	0.00	0.10	0.07	0.59	0.59	0.11	0.26	0.28
Avail Cap(c_a), veh/h	149	0	752	152	0	781	587	884	823	379	884	815
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	6.7	20.9	0.0	6.9	14.0	13.9	13.9	18.3	12.1	12.2
Incr Delay (d2), s/veh	5.4	0.0	0.0	2.0	0.0	0.1	0.1	0.9	1.0	0.2	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.4	0.0	0.2	1.0	0.0	0.6	0.3	4.4	4.1	0.4	1.7	1.7
LnGrp Delay(d),s/veh	30.0	0.0	6.7	22.9	0.0	7.0	14.1	14.8	14.9	18.5	12.4	12.5
LnGrp LOS	C		A	C		A	B	B	B	B	B	B
Approach Vol, veh/h		114			141			736			352	
Approach Delay, s/veh		24.1			14.3			14.8			12.9	
Approach LOS		C			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.3		29.9		22.3		29.9				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		10.9		27.9		12.6		27.9				
Green Ext Time (p_c), s		6.2		0.0		5.8		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			15.1									
HCM 2010 LOS			B									

HCM 2010 Signalized Intersection Summary
71: B St & 3rd St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	3	0	27	11	25	7	351	43	180	524	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.40	1.00		0.87	1.00		0.77
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	3	3	0	29	12	27	7	373	46	191	557	21
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	123	0	31	13	29	13	614	76	198	861	32
Arrive On Green	0.14	0.14	0.00	0.07	0.07	0.07	0.01	0.38	0.38	0.11	0.49	0.49
Sat Flow, veh/h	909	909	0	440	182	410	1774	1597	197	1774	1762	66
Grp Volume(v), veh/h	6	0	0	68	0	0	7	0	419	191	0	578
Grp Sat Flow(s),veh/h/ln	1817	0	0	1032	0	0	1774	0	1794	1774	0	1828
Q Serve(g_s), s	0.2	0.0	0.0	3.5	0.0	0.0	0.2	0.0	10.1	5.8	0.0	12.7
Cycle Q Clear(g_c), s	0.2	0.0	0.0	3.5	0.0	0.0	0.2	0.0	10.1	5.8	0.0	12.7
Prop In Lane	0.50		0.00	0.43		0.40	1.00		0.11	1.00		0.04
Lane Grp Cap(c), veh/h	246	0	0	73	0	0	13	0	689	198	0	893
V/C Ratio(X)	0.02	0.00	0.00	0.93	0.00	0.00	0.53	0.00	0.61	0.96	0.00	0.65
Avail Cap(c_a), veh/h	541	0	0	307	0	0	198	0	868	198	0	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	0.0	24.8	0.0	0.0	26.6	0.0	13.3	23.8	0.0	10.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	56.1	0.0	0.0	57.3	0.0	1.9	54.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.1	0.0	0.0	2.1	0.0	0.0	0.3	0.0	5.2	5.7	0.0	6.8
LnGrp Delay(d),s/veh	20.2	0.0	0.0	80.9	0.0	0.0	83.8	0.0	15.1	77.8	0.0	12.5
LnGrp LOS	C			F			F		B	E		B
Approach Vol, veh/h		6			68			426			769	
Approach Delay, s/veh		20.2			80.9			16.3			28.7	
Approach LOS		C			F			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	24.7		11.3	4.4	30.3		7.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	6.0	26.0		16.0	6.0	26.0		16.0				
Max Q Clear Time (g_c+I1), s	7.8	12.1		2.2	2.2	14.7		5.5				
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	7.6		0.4				
Intersection Summary												
HCM 2010 Ctrl Delay			27.3									
HCM 2010 LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

User approved volume balancing among the lanes for turning movement.

Intersection												
Intersection Delay, s/veh	11.5											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	36	122	45	0	34	127	31	0	18	142	100
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	130	48	0	36	135	33	0	19	151	106
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.4	11.3	11.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	18%	18%	14%
Vol Thru, %	55%	60%	66%	64%
Vol Right, %	38%	22%	16%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	203	192	212
LT Vol	18	36	34	30
Through Vol	142	122	127	135
RT Vol	100	45	31	47
Lane Flow Rate	277	216	204	226
Geometry Grp	1	1	1	1
Degree of Util (X)	0.406	0.334	0.319	0.343
Departure Headway (Hd)	5.284	5.562	5.617	5.472
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	678	644	637	654
Service Time	3.339	3.62	3.676	3.53
HCM Lane V/C Ratio	0.409	0.335	0.32	0.346
HCM Control Delay	11.9	11.4	11.3	11.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2	1.5	1.4	1.5

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	30	135	47
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	32	144	50
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.4
HCM LOS	B

Lane

Intersection													
Int Delay, s/veh	3.7												

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	12	25	1	13	8	77	10	310	58	99	434	19
Conflicting Peds, #/hr	0	0	70	0	0	0	36	0	0	28	0	0	9
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	75	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	13	27	1	14	9	82	11	330	62	105	462	20

Major/Minor	Minor2			Minor1			Major1			Major2				
Conflicting Flow All	1215	1201	570	0	1190	1181	406	552	0	0	427	0	0	
Stage 1	752	752	-	0	418	418	-	-	-	-	-	-	-	
Stage 2	463	449	-	0	772	763	-	-	-	-	-	-	-	
Critical Hdwy	7.12	6.52	6.22	-	7.12	6.52	6.22	4.12	-	-	4.12	-	-	
Critical Hdwy Stg 1	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	5.52	-	-	6.12	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	-	3.518	4.018	3.318	2.218	-	-	2.218	-	-	
Pot Cap-1 Maneuver	158	185	521	0	165	190	645	1018	-	-	1132	-	-	
Stage 1	402	418	-	0	612	591	-	-	-	-	-	-	-	
Stage 2	579	572	-	0	392	413	-	-	-	-	-	-	-	
Platoon blocked, %				-				-				-		
Mov Cap-1 Maneuver	113	152	479	0	127	156	621	994	-	-	1124	-	-	
Mov Cap-2 Maneuver	113	152	-	0	127	156	-	-	-	-	-	-	-	
Stage 1	374	357	-	0	587	567	-	-	-	-	-	-	-	
Stage 2	486	549	-	0	316	353	-	-	-	-	-	-	-	

Approach	EB			WB			NB			SB		
HCM Control Delay, s	26.2			19.4			0.2			1.5		
HCM LOS	D			C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	994	-	-	218	353	1124	-	-
HCM Lane V/C Ratio	0.011	-	-	0.224	0.295	0.094	-	-
HCM Control Delay (s)	8.7	-	-	26.2	19.4	8.5	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	1.2	0.3	-	-

Intersection

Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	62	56	18	0	0	92	28	0	16	239	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	66	60	19	0	0	98	30	0	17	254	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	9.9	9.5	11
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	46%	0%	38%
Vol Thru, %	94%	41%	77%	38%
Vol Right, %	0%	13%	23%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	255	136	120	205
LT Vol	16	62	0	78
Through Vol	239	56	92	78
RT Vol	0	18	28	49
Lane Flow Rate	271	145	128	218
Geometry Grp	1	1	1	1
Degree of Util (X)	0.371	0.217	0.188	0.298
Departure Headway (Hd)	5.025	5.408	5.29	5.021
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	722	667	682	720
Service Time	3.025	3.413	3.294	3.021
HCM Lane V/C Ratio	0.375	0.217	0.188	0.303
HCM Control Delay	11	9.9	9.5	10.1
HCM Lane LOS	B	A	A	B
HCM 95th-tile Q	1.7	0.8	0.7	1.2

Intersection

Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	78	78	49
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	83	83	52
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.1
HCM LOS	B

Lane

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	0	2	1	176	1	93	2	36	347	0	0	0
Conflicting Peds, #/hr	0	0	117	0	0	65	0	0	15	0	0	63
Sign Control	Stop	Stop	Stop	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	2	1	187	1	99	2	38	369	0	0	0

Major/Minor

	Minor2			Major2			Minor1		
Conflicting Flow All	576	557	168	15	0	0	559	606	80
Stage 1	542	542	-	-	-	-	15	15	-
Stage 2	34	15	-	-	-	-	544	591	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	6.42	6.52	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	3.518	4.018	-
Pot Cap-1 Maneuver	479	439	876	-	-	-	490	411	-
Stage 1	583	520	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	582	494	-
Platoon blocked, %				-	-	-			
Mov Cap-1 Maneuver	390	0	791	-	-	-	484	0	-
Mov Cap-2 Maneuver	390	0	-	-	-	-	484	0	-
Stage 1	526	0	-	-	-	-	-	0	-
Stage 2	-	0	-	-	-	-	582	0	-

Approach

	EB	WB	NB
HCM Control Delay, s	9.6		
HCM LOS	A		-

Minor Lane/Major Mvmt

	NBLn1	NBLn2	EBLn1	WBL	WBT	WBR
Capacity (veh/h)	484	-	791	-	-	-
HCM Lane V/C Ratio	0.084	-	0.004	-	-	-
HCM Control Delay (s)	13.1	-	9.6	-	-	-
HCM Lane LOS	B	-	A	-	-	-
HCM 95th %tile Q(veh)	0.3	-	0	-	-	-





















Intersection									
Intersection Delay, s/veh	15.4								
Intersection LOS	C								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	180	232	0	135	194	0	305	148
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	191	247	0	144	206	0	324	157
Number of Lanes	0	1	1	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	14.6	12.2	18.5
HCM LOS	B	B	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	232	135	194	305	148
LT Vol	180	0	0	0	305	0
Through Vol	0	232	135	0	0	0
RT Vol	0	0	0	194	0	148
Lane Flow Rate	191	247	144	206	324	157
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.38	0.455	0.272	0.35	0.647	0.261
Departure Headway (Hd)	7.148	6.637	6.817	6.101	7.182	5.966
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	502	541	524	586	503	600
Service Time	4.92	4.409	4.593	3.876	4.944	3.727
HCM Lane V/C Ratio	0.38	0.457	0.275	0.352	0.644	0.262
HCM Control Delay	14.3	14.9	12.1	12.2	22.3	10.8
HCM Lane LOS	B	B	B	B	C	B
HCM 95th-tile Q	1.8	2.4	1.1	1.6	4.6	1

HCM 2010 Signalized Intersection Summary
64: D St & 1st St

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	455	61	75	282	70	31	39	71	92	35	20
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.93	1.00		0.89	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	11	484	65	80	300	74	33	41	76	98	37	21
Adj No. of Lanes	1	1	0	1	1	0	0	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	605	81	116	616	152	99	87	427	118	27	422
Arrive On Green	0.01	0.38	0.38	0.07	0.43	0.43	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1774	1582	212	1774	1420	350	0	287	1403	0	88	1387
Grp Volume(v), veh/h	11	0	549	80	0	374	74	0	76	135	0	21
Grp Sat Flow(s),veh/h/ln	1774	0	1794	1774	0	1770	287	0	1403	88	0	1387
Q Serve(g_s), s	0.3	0.0	14.3	2.3	0.0	8.0	0.0	0.0	2.1	0.0	0.0	0.6
Cycle Q Clear(g_c), s	0.3	0.0	14.3	2.3	0.0	8.0	16.0	0.0	2.1	16.0	0.0	0.6
Prop In Lane	1.00		0.12	1.00		0.20	0.45		1.00	0.73		1.00
Lane Grp Cap(c), veh/h	25	0	687	116	0	769	186	0	427	145	0	422
V/C Ratio(X)	0.44	0.00	0.80	0.69	0.00	0.49	0.40	0.00	0.18	0.93	0.00	0.05
Avail Cap(c_a), veh/h	371	0	1024	371	0	1011	186	0	427	145	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.7	0.0	14.4	24.0	0.0	10.7	15.0	0.0	13.4	23.2	0.0	12.9
Incr Delay (d2), s/veh	4.4	0.0	1.5	2.7	0.0	0.2	0.5	0.0	0.1	53.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.2	0.0	7.3	1.2	0.0	3.9	0.8	0.0	0.8	4.1	0.0	0.2
LnGrp Delay(d),s/veh	30.1	0.0	15.9	26.7	0.0	10.8	15.5	0.0	13.5	76.9	0.0	12.9
LnGrp LOS	C		B	C		B	B		B	E		B
Approach Vol, veh/h		560			454			150			156	
Approach Delay, s/veh		16.2			13.6			14.5			68.2	
Approach LOS		B			B			B			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	25.1		20.0	4.7	27.8		20.0				
Change Period (Y+Rc), s	4.0	5.0		4.0	4.0	5.0		4.0				
Max Green Setting (Gmax), s	11.0	30.0		16.0	11.0	30.0		16.0				
Max Q Clear Time (g_c+I1), s	4.3	16.3		18.0	2.3	10.0		18.0				
Green Ext Time (p_c), s	0.0	3.8		0.0	0.0	4.4		0.0				
Intersection Summary												
HCM 2010 Ctrl Delay			21.3									
HCM 2010 LOS			C									

























Intersection									
Intersection Delay, s/veh	11.2								
Intersection LOS	B								
Movement	EBU	EBL	EBT	WBU	WBT	WBR	SBU	SBL	SBR
Vol, veh/h	0	192	206	0	105	11	0	13	140
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	204	219	0	112	12	0	14	149
Number of Lanes	0	0	1	0	1	0	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	12.8	8.7	9
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	0%	8%
Vol Thru, %	52%	91%	0%
Vol Right, %	0%	9%	92%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	398	116	153
LT Vol	192	0	13
Through Vol	206	105	0
RT Vol	0	11	140
Lane Flow Rate	423	123	163
Geometry Grp	1	1	1
Degree of Util (X)	0.536	0.162	0.211
Departure Headway (Hd)	4.557	4.737	4.657
Convergence, Y/N	Yes	Yes	Yes
Cap	788	754	768
Service Time	2.597	2.787	2.7
HCM Lane V/C Ratio	0.537	0.163	0.212
HCM Control Delay	12.8	8.7	9
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.2	0.6	0.8

HCM 2010 Signalized Intersection Summary
94: La Rue Rd & Hutchison Dr

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 						 			 	
Volume (veh/h)	232	107	64	18	280	224	134	220	9	91	79	159
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		0.96	0.99		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	247	114	0	19	298	238	129	254	10	97	84	169
Adj No. of Lanes	1	2	0	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	1716	0	755	903	736	441	1195	47	476	626	499
Arrive On Green	0.48	0.48	0.00	0.48	0.48	0.48	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	859	3632	0	1269	1863	1518	1115	3553	139	1106	1863	1484
Grp Volume(v), veh/h	247	114	0	19	298	238	129	133	131	97	84	169
Grp Sat Flow(s),veh/h/ln	859	1770	0	1269	1863	1518	1115	1863	1830	1106	1863	1484
Q Serve(g_s), s	11.1	0.8	0.0	0.4	4.4	4.3	4.4	2.3	2.3	3.1	1.4	3.8
Cycle Q Clear(g_c), s	15.5	0.8	0.0	1.1	4.4	4.3	8.2	2.3	2.3	5.4	1.4	3.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	493	1716	0	755	903	736	441	626	615	476	626	499
V/C Ratio(X)	0.50	0.07	0.00	0.03	0.33	0.32	0.29	0.21	0.21	0.20	0.13	0.34
Avail Cap(c_a), veh/h	577	2059	0	878	1084	883	715	1084	1064	748	1084	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	6.1	0.0	6.4	7.1	7.0	14.2	10.6	10.6	12.5	10.3	11.1
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.2	0.3	0.4	0.2	0.2	0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.7	0.4	0.0	0.1	2.3	1.8	1.4	1.2	1.2	0.9	0.7	1.6
LnGrp Delay(d),s/veh	12.6	6.1	0.0	6.4	7.3	7.3	14.5	10.8	10.8	12.7	10.4	11.5
LnGrp LOS	B	A		A	A	A	B	B	B	B	B	B
Approach Vol, veh/h		361			555			393			350	
Approach Delay, s/veh		10.6			7.3			12.0			11.6	
Approach LOS		B			A			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.0		25.7		19.0		25.7				
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0				
Max Green Setting (Gmax), s		26.0		26.0		26.0		26.0				
Max Q Clear Time (g_c+I1), s		10.2		17.5		7.4		6.4				
Green Ext Time (p_c), s		3.8		3.4		4.0		5.2				
Intersection Summary												
HCM 2010 Ctrl Delay			10.0									
HCM 2010 LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												

Intersection												
Intersection Delay, s/veh	10.3											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	32	0	16	0	23	3	10	0	4	349	6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	0	17	0	24	3	11	0	4	371	6
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	1
HCM Control Delay	8.7	8.6	11.5
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	1%	67%	64%	4%	0%
Vol Thru, %	97%	0%	8%	96%	0%
Vol Right, %	2%	33%	28%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	359	48	36	144	35
LT Vol	4	32	23	6	0
Through Vol	349	0	3	138	0
RT Vol	6	16	10	0	35
Lane Flow Rate	382	51	38	153	37
Geometry Grp	5	2	2	7	7
Degree of Util (X)	0.475	0.074	0.056	0.216	0.045
Departure Headway (Hd)	4.476	5.219	5.269	5.079	4.354
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	806	684	677	706	822
Service Time	2.502	3.267	3.318	2.81	2.084
HCM Lane V/C Ratio	0.474	0.075	0.056	0.217	0.045
HCM Control Delay	11.5	8.7	8.6	9.2	7.3
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	2.6	0.2	0.2	0.8	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	6	137	35
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	6	146	37
Number of Lanes	0	0	1	1























Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

























HCM 2010 Signalized Intersection Summary
36: Drew Ave & Cowell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	59	601	61	29	408	9	57	3	23	22	4	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	1.00		0.94	1.00		0.63
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	63	639	65	31	434	10	61	3	24	23	4	70
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	821	84	61	883	719	98	23	182	48	199	107
Arrive On Green	0.06	0.50	0.50	0.03	0.47	0.47	0.06	0.14	0.14	0.03	0.11	0.11
Sat Flow, veh/h	1774	1655	168	1774	1863	1517	1774	169	1348	1774	1863	995
Grp Volume(v), veh/h	63	0	704	31	434	10	61	0	27	23	4	70
Grp Sat Flow(s),veh/h/ln	1774	0	1824	1774	1863	1517	1774	0	1517	1774	1863	995
Q Serve(g_s), s	1.9	0.0	17.5	0.9	8.8	0.2	1.9	0.0	0.9	0.7	0.1	3.7
Cycle Q Clear(g_c), s	1.9	0.0	17.5	0.9	8.8	0.2	1.9	0.0	0.9	0.7	0.1	3.7
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	99	0	905	61	883	719	98	0	205	48	199	107
V/C Ratio(X)	0.63	0.00	0.78	0.51	0.49	0.01	0.63	0.00	0.13	0.48	0.02	0.66
Avail Cap(c_a), veh/h	353	0	990	257	1011	823	257	0	220	257	270	144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	0.0	11.4	26.2	10.0	7.7	25.6	0.0	21.0	26.5	22.1	23.7
Incr Delay (d2), s/veh	6.5	0.0	4.6	6.5	0.9	0.0	6.4	0.0	0.6	7.3	0.0	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.1	0.0	9.8	0.6	4.7	0.1	1.1	0.0	0.4	0.4	0.1	1.2
LnGrp Delay(d),s/veh	32.0	0.0	16.0	32.7	10.9	7.7	32.0	0.0	21.7	33.8	22.1	30.4
LnGrp LOS	C		B	C	B	A	C		C	C	C	C
Approach Vol, veh/h		767			475			88			97	
Approach Delay, s/veh		17.3			12.2			28.8			30.9	
Approach LOS		B			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	32.4	7.0	9.9	7.1	31.2	5.5	11.5				
Change Period (Y+Rc), s	4.0	5.0	4.0	4.0	4.0	5.0	4.0	4.0				
Max Green Setting (Gmax), s	8.0	30.0	8.0	8.0	11.0	30.0	8.0	8.0				
Max Q Clear Time (g_c+I1), s	2.9	19.5	3.9	5.7	3.9	10.8	2.7	2.9				
Green Ext Time (p_c), s	0.0	7.9	0.0	0.1	0.1	12.9	0.0	0.2				
Intersection Summary												
HCM 2010 Ctrl Delay			17.3									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

























HCM 2010 Signalized Intersection Summary
35: Valdora St & Cowell Blvd

Existing Conditions + Nishi Alt. 2
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	78	478	63	42	290	37	37	15	52	27	16	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.97	1.00		0.96	1.00		0.58
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	83	509	67	45	309	39	39	16	55	29	17	71
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	753	590	86	708	583	77	250	205	60	25	103
Arrive On Green	0.07	0.40	0.40	0.05	0.38	0.38	0.04	0.13	0.13	0.03	0.12	0.12
Sat Flow, veh/h	1774	1863	1459	1774	1863	1534	1774	1863	1525	1774	197	822
Grp Volume(v), veh/h	83	509	67	45	309	39	39	16	55	29	0	88
Grp Sat Flow(s),veh/h/ln	1774	1863	1459	1774	1863	1534	1774	1863	1525	1774	0	1019
Q Serve(g_s), s	2.0	9.7	1.2	1.1	5.4	0.7	0.9	0.3	1.4	0.7	0.0	3.6
Cycle Q Clear(g_c), s	2.0	9.7	1.2	1.1	5.4	0.7	0.9	0.3	1.4	0.7	0.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	129	753	590	86	708	583	77	250	205	60	0	127
V/C Ratio(X)	0.64	0.68	0.11	0.53	0.44	0.07	0.51	0.06	0.27	0.48	0.00	0.69
Avail Cap(c_a), veh/h	245	1306	1023	245	1306	1075	245	257	210	245	0	140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.6	10.6	8.1	20.2	10.0	8.6	20.4	16.5	16.9	20.6	0.0	18.2
Incr Delay (d2), s/veh	2.0	0.4	0.0	1.9	0.2	0.0	1.9	0.0	0.3	2.2	0.0	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	1.0	5.0	0.5	0.6	2.8	0.3	0.5	0.2	0.6	0.4	0.0	1.3
LnGrp Delay(d),s/veh	21.6	11.0	8.1	22.1	10.2	8.6	22.3	16.5	17.2	22.8	0.0	27.5
LnGrp LOS	C	B	A	C	B	A	C	B	B	C		C
Approach Vol, veh/h		659			393			110				117
Approach Delay, s/veh		12.1			11.4			18.9				26.4
Approach LOS		B			B			B				C
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	22.1	5.9	9.4	7.2	21.0	5.5	9.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	6.0	30.5	6.0	6.0	6.0	30.5	6.0	6.0				
Max Q Clear Time (g_c+I1), s	3.1	11.7	2.9	5.6	4.0	7.4	2.7	3.4				
Green Ext Time (p_c), s	0.0	3.8	0.0	0.0	0.0	4.0	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			13.7									
HCM 2010 LOS			B									
Notes												
User approved pedestrian interval to be less than phase max green.												

HCM 2010 Signalized Intersection Summary
 34: Cowell Blvd & Pole Line Rd/Lillard Dr

Existing Conditions + Nishi Alt. 2
 PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	207	132	115	148	182	4	155	90	282	3	102	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	220	140	0	157	194	0	165	96	0	3	109	0
Adj No. of Lanes	1	1	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	362	307	205	528	236	211	475	404	7	261	221
Arrive On Green	0.16	0.19	0.00	0.12	0.15	0.00	0.12	0.25	0.00	0.00	0.14	0.00
Sat Flow, veh/h	1774	1863	1583	1774	3539	1583	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	220	140	0	157	194	0	165	96	0	3	109	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1774	1770	1583	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	4.4	2.4	0.0	3.2	1.8	0.0	3.4	1.5	0.0	0.1	2.0	0.0
Cycle Q Clear(g_c), s	4.4	2.4	0.0	3.2	1.8	0.0	3.4	1.5	0.0	0.1	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	284	362	307	205	528	236	211	475	404	7	261	221
V/C Ratio(X)	0.77	0.39	0.00	0.77	0.37	0.00	0.78	0.20	0.00	0.41	0.42	0.00
Avail Cap(c_a), veh/h	765	804	683	765	1145	512	383	703	598	526	703	598
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.9	13.0	0.0	15.9	14.2	0.0	15.9	10.9	0.0	18.4	14.6	0.0
Incr Delay (d2), s/veh	1.7	0.3	0.0	2.3	0.2	0.0	2.4	0.1	0.0	13.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	2.3	1.3	0.0	1.7	0.9	0.0	1.7	0.8	0.0	0.1	1.0	0.0
LnGrp Delay(d),s/veh	16.6	13.3	0.0	18.2	14.4	0.0	18.2	10.9	0.0	31.7	15.0	0.0
LnGrp LOS	B	B		B	B		B	B		C	B	
Approach Vol, veh/h		360			351			261			112	
Approach Delay, s/veh		15.3			16.1			15.5			15.4	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.2	13.5	8.3	11.2	8.4	9.2	9.9	9.5				
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gmax), s	11.0	14.0	16.0	16.0	8.0	14.0	16.0	12.0				
Max Q Clear Time (g_c+I1), s	2.1	3.5	5.2	4.4	5.4	4.0	6.4	3.8				
Green Ext Time (p_c), s	0.0	0.5	0.2	1.1	0.1	0.5	0.2	0.9				

Intersection Summary

HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection												
Int Delay, s/veh	4.4											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	123	3	96	3	0	2	19	250	2	4	201	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	175	-	-	-	150	-	-	75	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	131	3	102	3	0	2	20	266	2	4	214	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	561	561	244	611	588	267	272	0	0	268	0	0
Stage 1	252	252	-	307	307	-	-	-	-	-	-	-
Stage 2	309	309	-	304	281	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	438	436	795	406	421	772	1291	-	-	1296	-	-
Stage 1	752	698	-	703	661	-	-	-	-	-	-	-
Stage 2	701	660	-	705	678	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	431	428	794	347	413	772	1290	-	-	1296	-	-
Mov Cap-2 Maneuver	431	428	-	347	413	-	-	-	-	-	-	-
Stage 1	740	696	-	692	651	-	-	-	-	-	-	-
Stage 2	688	650	-	609	676	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	13.2	0.5	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1290	-	-	431	774	445	1296	-	-
HCM Lane V/C Ratio	0.016	-	-	0.304	0.136	0.012	0.003	-	-
HCM Control Delay (s)	7.8	-	-	17	10.4	13.2	7.8	-	-
HCM Lane LOS	A	-	-	C	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.3	0.5	0	0	-	-

Intersection

Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	209	122	34	0	52	106	7	0	31	40	31
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	222	130	36	0	55	113	7	0	33	43	33
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	11.9	10.3	9.9
HCM LOS	B	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	56%	0%	78%	0%	94%	0%	42%
Vol Right, %	0%	44%	0%	22%	0%	6%	0%	58%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	71	209	156	52	113	9	202
LT Vol	31	0	209	0	52	0	9	0
Through Vol	0	40	0	122	0	106	0	85
RT Vol	0	31	0	34	0	7	0	117
Lane Flow Rate	33	76	222	166	55	120	10	215
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.064	0.13	0.39	0.261	0.102	0.203	0.018	0.351
Departure Headway (Hd)	6.992	6.173	6.315	5.655	6.619	6.068	6.797	5.88
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	512	580	571	636	542	591	527	610
Service Time	4.741	3.922	4.048	3.389	4.36	3.809	4.54	3.622
HCM Lane V/C Ratio	0.064	0.131	0.389	0.261	0.101	0.203	0.019	0.352
HCM Control Delay	10.2	9.8	13	10.4	10.1	10.4	9.7	11.8
HCM Lane LOS	B	A	B	B	B	B	A	B
HCM 95th-tile Q	0.2	0.4	1.8	1	0.3	0.8	0.1	1.6

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	9	85	117
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	10	90	124
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.7
HCM LOS	B

Lane

Intersection									
Intersection Delay, s/veh	9.7								
Intersection LOS	A								
Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	197	150	0	38	162	0	138	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	210	160	0	40	172	0	147	31
Number of Lanes	0	1	1	0	1	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.5	9.8	10.2
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	83%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	0%	100%
Vol Right, %	17%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	167	197	150	38	162
LT Vol	138	0	0	38	0
Through Vol	0	197	0	0	162
RT Vol	29	0	150	0	0
Lane Flow Rate	178	210	160	40	172
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.261	0.305	0.201	0.066	0.257
Departure Headway (Hd)	5.284	5.235	4.53	5.872	5.367
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	677	683	787	607	665
Service Time	3.344	2.992	2.286	3.638	3.133
HCM Lane V/C Ratio	0.263	0.307	0.203	0.066	0.259
HCM Control Delay	10.2	10.3	8.4	9.1	10
HCM Lane LOS	B	B	A	A	A
HCM 95th-tile Q	1	1.3	0.7	0.2	1

Intersection												
Intersection Delay, s/veh	8.1											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	62	75	11	0	2	35	9	0	6	7	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	66	80	12	0	2	37	10	0	6	7	1
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	2	2
HCM Control Delay	8.4	7.9	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	0%	88%	0%	87%	0%	80%	0%	6%
Vol Right, %	0%	12%	0%	13%	0%	20%	0%	94%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	8	63	86	2	44	13	85
LT Vol	6	0	63	0	2	0	13	0
Through Vol	0	7	0	75	0	35	0	5
RT Vol	0	1	0	11	0	9	0	80
Lane Flow Rate	6	9	67	91	2	47	14	90
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.01	0.012	0.098	0.119	0.003	0.063	0.021	0.111
Departure Headway (Hd)	5.648	5.058	5.37	4.779	5.459	4.814	5.571	4.408
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	637	711	672	755	658	747	646	817
Service Time	3.356	2.766	3.07	2.479	3.171	2.526	3.275	2.112
HCM Lane V/C Ratio	0.009	0.013	0.1	0.121	0.003	0.063	0.022	0.11
HCM Control Delay	8.4	7.8	8.7	8.1	8.2	7.9	8.4	7.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0.3	0.4	0	0.2	0.1	0.4

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	12	5	80
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	13	5	85
Number of Lanes	0	1	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	7.8
HCM LOS	A

Lane

Intersection

Int Delay, s/veh 2.1

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	3	138	52	2	30	266	79	62
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	Yield
Storage Length	-	-	0	-	75	-	0	-
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	3	147	55	2	32	283	84	66

Major/Minor

	Major1	Major2					Minor1	
Conflicting Flow All	283	0	0	213	147	0	494	149
Stage 1	-	-	-	-	-	-	147	-
Stage 2	-	-	-	-	-	-	347	-
Critical Hdwy	-	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	-	1435	-	535	898
Stage 1	-	-	-	-	-	-	880	-
Stage 2	-	-	-	-	-	-	716	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	~-16	~-16	-	535	898
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	-
Stage 1	-	-	-	-	-	-	880	-
Stage 2	-	-	-	-	-	-	716	-

Approach

	EB	WB	NB
HCM Control Delay, s			9.5
HCM LOS			A

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	955	-	-	+	-
HCM Lane V/C Ratio	0.157	-	-	-	-
HCM Control Delay (s)	9.5	-	-	-	-
HCM Lane LOS	A	-	-	-	-
HCM 95th %tile Q(veh)	0.6	-	-	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	5	199	296	33	37	0
Conflicting Peds, #/hr	0	0	0	6	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	212	315	35	39	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	350	0	554
Stage 1	-	-	332
Stage 2	-	-	222
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1209	-	493
Stage 1	-	-	727
Stage 2	-	-	815
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1209	-	491
Mov Cap-2 Maneuver	-	-	491
Stage 1	-	-	727
Stage 2	-	-	812

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1209	-	-	-	491	-
HCM Lane V/C Ratio	0.004	-	-	-	0.08	-
HCM Control Delay (s)	8	-	-	-	13	0
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3	-

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	24	260	189	24	82	67
Conflicting Peds, #/hr	0	0	0	5	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	277	201	26	87	71

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	229	0	544
Stage 1	-	-	216
Stage 2	-	-	328
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1339	-	500
Stage 1	-	-	820
Stage 2	-	-	730
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1339	-	487
Mov Cap-2 Maneuver	-	-	487
Stage 1	-	-	819
Stage 2	-	-	712

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1339	-	-	-	597
HCM Lane V/C Ratio	0.019	-	-	-	0.266
HCM Control Delay (s)	7.7	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

Intersection												
Intersection Delay, s/veh	9.9											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	1	18	2	350	0	2	4	0	2	172	14	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	19	2	372	0	2	4	0	2	183	15	2
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	10.1	8.1	10
HCM LOS	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	91%	5%	33%	0%
Vol Thru, %	7%	1%	67%	63%
Vol Right, %	1%	95%	0%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	371	6	30
LT Vol	174	18	2	0
Through Vol	14	2	4	19
RT Vol	2	351	0	11
Lane Flow Rate	202	395	6	32
Geometry Grp	1	1	1	1
Degree of Util (X)	0.28	0.437	0.009	0.043
Departure Headway (Hd)	4.981	3.987	5.014	4.816
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	904	712	739
Service Time	3.028	2.007	3.057	2.872
HCM Lane V/C Ratio	0.281	0.437	0.008	0.043
HCM Control Delay	10	10.1	8.1	8.1
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1.1	2.2	0	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	19	11
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	20	12
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.1
HCM LOS	A

Lane

Intersection												
Intersection Delay, s/veh	11.1											
Intersection LOS	B											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	60	1	23	0	0	0	0	0	0	69	36
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	64	1	24	0	0	0	0	0	0	73	38
Number of Lanes	0	1	1	0	0	0	0	0	0	0	1	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	3	2
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	9.4	9.1
HCM LOS	A	A

Lane	NBLn1	EBLn1	EBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%
Vol Thru, %	66%	0%	4%	0%	100%	100%
Vol Right, %	34%	0%	96%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	60	24	289	15	15
LT Vol	0	60	0	289	0	0
Through Vol	69	0	1	0	15	15
RT Vol	36	0	23	0	0	0
Lane Flow Rate	112	64	26	307	16	16
Geometry Grp	8	8	8	7	7	7
Degree of Util (X)	0.165	0.112	0.036	0.461	0.022	0.022
Departure Headway (Hd)	5.309	6.311	5.135	5.397	4.895	4.895
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	674	567	694	667	731	731
Service Time	3.055	4.063	2.888	3.127	2.625	2.625
HCM Lane V/C Ratio	0.166	0.113	0.037	0.46	0.022	0.022
HCM Control Delay	9.1	9.9	8.1	12.7	7.7	7.7
HCM Lane LOS	A	A	A	B	A	A
HCM 95th-tile Q	0.6	0.4	0.1	2.4	0.1	0.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	1	288	30	0
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	1	306	32	0
Number of Lanes	0	1	2	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.2
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	0	0	0	7	3	110	0	59	71	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	7	3	117	0	63	76	0
Number of Lanes	0	0	0	0	0	0	2	0	0	1	2	0

Approach	WB	NB
Opposing Approach		SB
Opposing Lanes	0	3
Conflicting Approach Left	NB	
Conflicting Lanes Left	3	0
Conflicting Approach Right	SB	WB
Conflicting Lanes Right	3	2
HCM Control Delay	9.3	8.9
HCM LOS	A	A

Lane	NBLn1	NBLn2	NBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	82%	0%	0%	0%	0%
Vol Thru, %	0%	100%	100%	18%	1%	100%	100%	0%
Vol Right, %	0%	0%	0%	0%	99%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	36	36	9	112	156	156	322
LT Vol	59	0	0	7	0	0	0	0
Through Vol	0	36	36	2	2	156	156	0
RT Vol	0	0	0	0	110	0	0	322
Lane Flow Rate	63	38	38	9	119	166	166	343
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.111	0.062	0.043	0.016	0.177	0.242	0.242	0.266
Departure Headway (Hd)	6.378	5.875	4.13	6.485	5.386	5.239	5.239	2.793
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	559	605	856	548	660	685	685	1281
Service Time	4.157	3.654	1.908	4.273	3.175	2.971	2.971	0.524
HCM Lane V/C Ratio	0.113	0.063	0.044	0.016	0.18	0.242	0.242	0.268
HCM Control Delay	10	9	7.1	9.4	9.3	9.6	9.6	6.5
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0.1	0	0.6	0.9	0.9	1.1

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	312	322
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	332	343
Number of Lanes	0	0	2	1

Approach SB

Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	
Conflicting Lanes Right	0
HCM Control Delay	8
HCM LOS	A

Lane

Intersection			
Intersection Delay, s/veh	10.6		
Intersection LOS	B		
Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	193	529	416
Demand Flow Rate, veh/h	197	540	425
Vehicles Circulating, veh/h	138	86	404
Vehicles Exiting, veh/h	691	249	222
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.7	9.9	13.8
Approach LOS	A	A	B
Lane	Left	Left	Left
Designated Moves	LT	LTR	LR
Assumed Moves	LT	LTR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	197	540	425
Cap Entry Lane, veh/h	984	1037	754
Entry HV Adj Factor	0.979	0.980	0.979
Flow Entry, veh/h	193	529	416
Cap Entry, veh/h	963	1016	738
V/C Ratio	0.200	0.521	0.563
Control Delay, s/veh	5.7	9.9	13.8
LOS	A	A	B
95th %tile Queue, veh	1	3	4

Intersection

Int Delay, s/veh 6.7

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBL	NBR
Vol, veh/h	1	203	24	1	0	260	235	42
Conflicting Peds, #/hr	0	0	18	0	0	0	0	28
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	None
Storage Length	-	-	-	-	0	-	75	0
Veh in Median Storage, #	-	0	-	-	-	0	0	-
Grade, %	-	0	-	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2
Mvmt Flow	1	216	26	1	0	277	250	45

Major/Minor

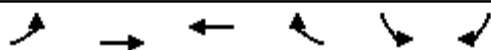
	Major1	Major2					Minor1	
Conflicting Flow All	277	0	0	286	269	0	534	258
Stage 1	-	-	-	-	-	-	257	-
Stage 2	-	-	-	-	-	-	277	-
Critical Hdwy	-	-	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	-	-	1295	-	507	781
Stage 1	-	-	-	-	-	-	786	-
Stage 2	-	-	-	-	-	-	770	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	488	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	488	-
Stage 1	-	-	-	-	-	-	768	-
Stage 2	-	-	-	-	-	-	758	-

Approach

	EB	WB	NB
HCM Control Delay, s			18.4
HCM LOS			C

Minor Lane/Major Mvmt

	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	488	763	-	-	-	-
HCM Lane V/C Ratio	0.512	0.059	-	-	-	-
HCM Control Delay (s)	19.9	10	-	-	-	-
HCM Lane LOS	C	B	-	-	-	-
HCM 95th %tile Q(veh)	2.9	0.2	-	-	-	-



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	56	190	172	22	44	90
Number	7	4	8	18	1	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98			0.94	1.00	0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	60	202	183	23	47	96
Adj No. of Lanes	1	1	1	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	0	0
Cap, veh/h	390	492	425	53	250	511
Arrive On Green	0.26	0.26	0.26	0.26	0.52	0.52
Sat Flow, veh/h	1145	1863	1610	202	483	986
Grp Volume(v), veh/h	60	202	0	206	144	0
Grp Sat Flow(s),veh/h/ln	1145	1863	0	1812	1480	0
Q Serve(g_s), s	1.7	3.3	0.0	3.5	1.9	0.0
Cycle Q Clear(g_c), s	5.2	3.3	0.0	3.5	1.9	0.0
Prop In Lane	1.00			0.11	0.33	0.67
Lane Grp Cap(c), veh/h	390	492	0	479	767	0
V/C Ratio(X)	0.15	0.41	0.00	0.43	0.19	0.00
Avail Cap(c_a), veh/h	898	1318	0	789	1047	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	11.2	0.0	11.2	4.7	0.0
Incr Delay (d2), s/veh	0.2	0.5	0.0	0.6	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(-26165%),veh/ln	0.6	1.8	0.0	1.8	0.8	0.0
LnGrp Delay(d),s/veh	13.5	11.7	0.0	11.8	4.8	0.0
LnGrp LOS	B	B		B	A	
Approach Vol, veh/h		262	206		144	
Approach Delay, s/veh		12.1	11.8		4.8	
Approach LOS		B	B		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		8
Phs Duration (G+Y+Rc), s				13.7		23.0		13.7
Change Period (Y+Rc), s				4.0		4.0		4.0
Max Green Setting (Gmax), s				26.0		26.0		16.0
Max Q Clear Time (g_c+I1), s				7.2		3.9		5.5
Green Ext Time (p_c), s				2.6		0.5		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.3
HCM 2010 LOS	B

Notes
User approved volume balancing among the lanes for turning movement.

Intersection

Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	2	15	201	8	1	8	172	14	0	37	8	51
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	16	214	9	1	9	183	15	0	39	9	54
Number of Lanes	0	1	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	2
HCM Control Delay	9.7	9.4	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	39%	100%	0%	100%	0%
Vol Thru, %	8%	0%	96%	0%	92%
Vol Right, %	53%	0%	4%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	17	209	9	186
LT Vol	37	17	0	9	0
Through Vol	8	0	201	0	172
RT Vol	51	0	8	0	14
Lane Flow Rate	102	18	222	10	198
Geometry Grp	2	7	7	7	7
Degree of Util (X)	0.135	0.027	0.304	0.015	0.271
Departure Headway (Hd)	4.76	5.459	4.93	5.489	4.934
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	754	656	729	653	728
Service Time	2.788	3.187	2.657	3.217	2.661
HCM Lane V/C Ratio	0.135	0.027	0.305	0.015	0.272
HCM Control Delay	8.5	8.3	9.8	8.3	9.5
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.5	0.1	1.3	0	1.1

Intersection

Intersection Delay, s/veh

Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	0	0

Approach

Opposing Approach

Opposing Lanes

Conflicting Approach Left

Conflicting Lanes Left

Conflicting Approach Right

Conflicting Lanes Right

HCM Control Delay

HCM LOS

Lane

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Vol, veh/h	10	251	2	176	5	16	3
Conflicting Peds, #/hr	0	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	None
Storage Length	75	-	-	-	-	0	-
Veh in Median Storage, #	-	0	-	0	-	0	-
Grade, %	-	0	-	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	11	267	2	187	5	17	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	193	0	267
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1380	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1380	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3		11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1380	-	-	-	575
HCM Lane V/C Ratio	0.008	-	-	-	0.035
HCM Control Delay (s)	7.6	-	-	-	11.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1