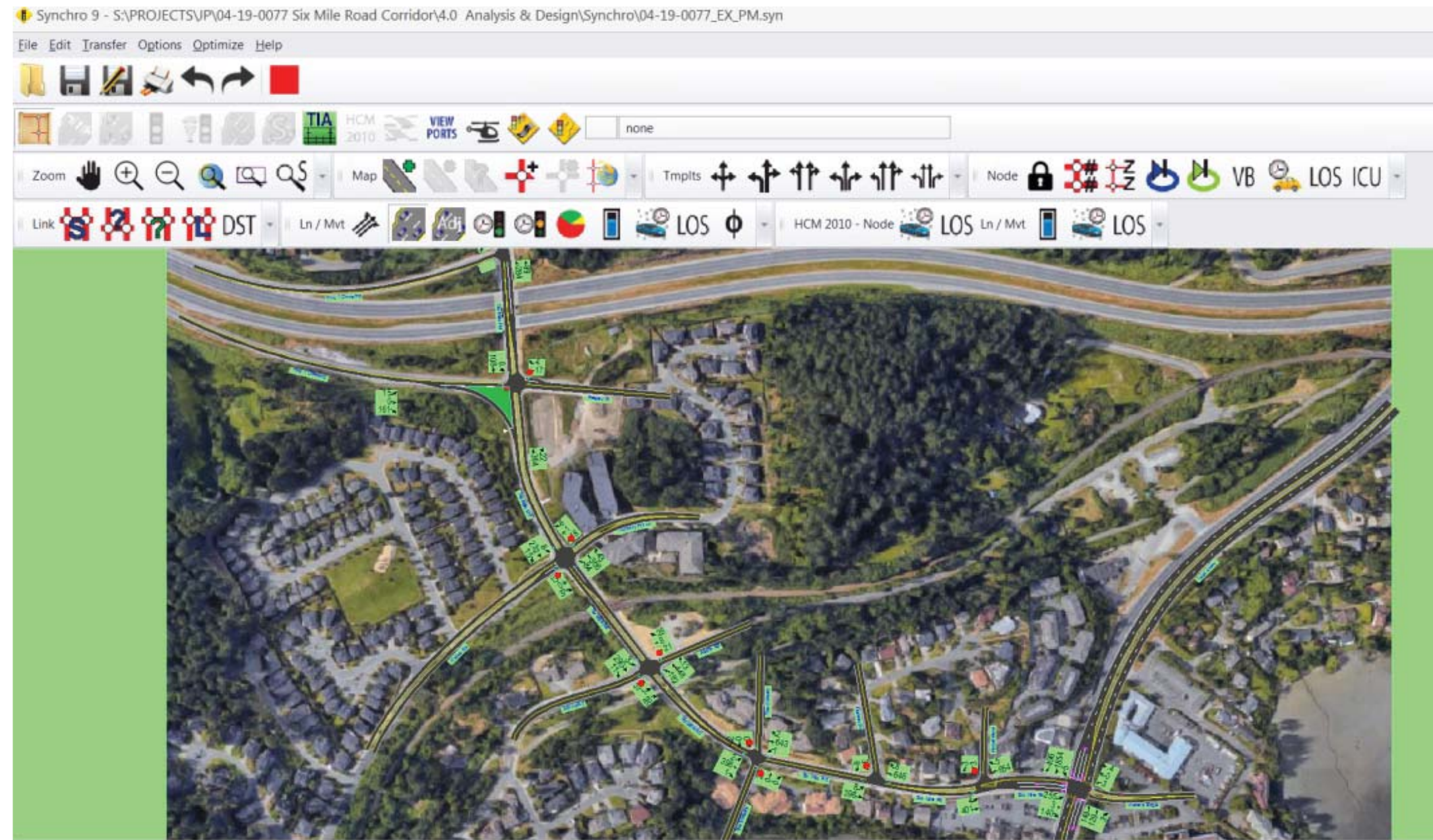


Analysis Methods and Assumptions

Synchro/ SimTraffic software was used in the analysis.

- Synchro provides detailed output for intersections in isolation.
- SimTraffic provides output for a wider road network that accounts for the impact of nearby intersections.



HCM Unsignalized Intersection Capacity Analysis
5: Six Mile Rd & Atkins Rd
Existing PM
04/26/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		+			+			+				+	
Traffic Volume (veh/h)	10	1	88	21	8	28	182	448	13	3	290	11	
Future Volume (Veh/h)	10	1	88	21	8	28	182	448	13	3	290	11	
Sign Control	Stop			Stop			Free			Free			
Grade	0%			0%			0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	11	1	96	23	9	30	198	487	14	3	315	12	
Pedestrians													
Lane Width (m)													
Walking Speed (m/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None						None						
Median storage (veh)													
Upstream signal (m)													
pK, platoon unblocked													
vC, conflicting volume	1252	1224	321	1314	1223	494	327						501
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	1252	1224	321	1314	1223	494	327						501
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1						4.1
tC, 2 stage (s)													
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2						2.2
p0 queue free %	91	99	87	77	94	95	84						100
cM capacity (veh/h)	118	150	720	102	150	575	1233						1063
Direction, Lane #	EB 1	WB 1	NB 1	SB 1									
Volume Total	108	62	699	330									
Volume Left	11	23	198	3									
Volume Right	96	30	14	12									
cSH	463	184	1233	1063									
Volume to Capacity	0.23	0.34	0.16	0.00									
Queue Length 95th (m)	6.8	10.6	4.3	0.1									
Control Delay (s)	15.1	34.3	3.8	0.1									
Lane LOS	C	D	A	A									
Approach Delay (s)	15.1	34.3	3.8	0.1									
Approach LOS	C				D								
Intersection Summary													
Average Delay	5.4												
Intersection Capacity Utilization	68.9%												
ICU Level of Service	C												
Analysis Period (min)	15												

Assumptions

- To calculate future vehicle volumes a 1.5% yearly growth rate was applied to Atkins Road and Trans Canada off-ramp. A 2% rate was applied to Island Highway through volumes.

