



Appendix D

Synchro Reports

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	622	0	0	367
Future Vol, veh/h	0	0	622	0	0	367
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	676	0	0	399
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1075	676	0	0	676	0
Stage 1	676	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	243	453	-	-	915	-
Stage 1	505	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	243	453	-	-	915	-
Mov Cap-2 Maneuver	243	-	-	-	-	-
Stage 1	505	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	915	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	622	0	0	367	0
Future Vol, veh/h	0	0	0	0	0	0	0	622	0	0	367	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	676	0	0	399	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1075	1075	399	1075	1075	676	399	0	0	676	0	0
Stage 1	399	399	-	676	676	-	-	-	-	-	-	-
Stage 2	676	676	-	399	399	-	-	-	-	-	-	-
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	197	220	651	197	220	453	1160	-	-	915	-	-
Stage 1	627	602	-	443	453	-	-	-	-	-	-	-
Stage 2	443	453	-	627	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	197	220	651	197	220	453	1160	-	-	915	-	-
Mov Cap-2 Maneuver	197	220	-	197	220	-	-	-	-	-	-	-
Stage 1	627	602	-	443	453	-	-	-	-	-	-	-
Stage 2	443	453	-	627	602	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		0		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1160	-	-	-	-	915	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-				

Intersection						
Int Delay, s/veh	2.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	119	617	5	42	351
Future Vol, veh/h	16	119	617	5	42	351
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	129	671	5	46	382
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1146	673	0	0	676	0
Stage 1	673	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	220	455	-	-	915	-
Stage 1	507	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	209	455	-	-	915	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	19.15		0		0.98	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBL	SBT
Capacity (veh/h)	-		-		399	915
HCM Lane V/C Ratio	-		-		0.367	0.05
HCM Ctrl Dly (s/v)	-		-		19.2	9.1
HCM Lane LOS	-		-		C	A
HCM 95th %tile Q(veh)	-		-		1.7	0.2

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	6	10	810	334	78
Future Vol, veh/h	20	6	10	810	334	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	7	11	880	363	85
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1265	363	448	0	-	0
Stage 1	363	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	187	682	1112	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	183	682	1112	-	-	-
Mov Cap-2 Maneuver	183	-	-	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	23.72	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	22	-	220	-	-	
HCM Lane V/C Ratio	0.01	-	0.128	-	-	
HCM Ctrl Dly (s/v)	8.3	0	23.7	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	865	402	20
Future Vol, veh/h	20	10	10	865	402	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	11	11	940	437	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	940	448	459	0	-	0
Stage 1	448	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	277	610	1100	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	274	610	1100	-	-	-
Mov Cap-2 Maneuver	274	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	16.86	0.17		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	41	-	336	-	-	
HCM Lane V/C Ratio	0.01	-	0.097	-	-	
HCM Ctrl Dly (s/v)	8.3	0.1	16.9	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↗↘
Traffic Volume (vph)	379	314	108	400	605
Future Volume (vph)	379	314	108	400	605
Lane Group Flow (vph)	412	341	117	435	962
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	41.0	41.0	9.6	50.6	29.4
Total Split (%)	51.3%	51.3%	12.0%	63.3%	36.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Act Effct Green (s)	36.5	36.5	46.1	46.1	24.9
Actuated g/C Ratio	0.46	0.46	0.58	0.58	0.31
v/c Ratio	0.48	0.81	0.26	0.21	0.86
Control Delay (s/veh)	11.1	23.5	10.7	9.6	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.1	23.5	10.7	9.6	32.6
LOS	B	C	B	A	C
Approach Delay (s/veh)	16.7			9.8	32.6
Approach LOS	B			A	C
Queue Length 50th (m)	23.4	29.3	7.2	14.8	63.2
Queue Length 95th (m)	40.3	#63.8	m13.4	m22.8	#95.7
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	859	420	458	2062	1118
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.81	0.26	0.21	0.86

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 21.8

Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

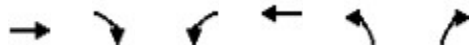
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Prospect & St. Margarets Bay





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↖	↑↑	↖↖	
Traffic Volume (veh/h)	379	314	108	400	605	280
Future Volume (veh/h)	379	314	108	400	605	280
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	0.96		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	412	0	117	435	481	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	853		527	2048	554	
Arrive On Green	0.46	0.00	0.06	0.58	0.31	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	412	0	117	435	481	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	12.3	0.0	2.6	4.7	20.4	0.0
Cycle Q Clear(g_c), s	12.3	0.0	2.6	4.7	20.4	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	853		527	2048	554	
V/C Ratio(X)	0.48		0.22	0.21	0.87	
Avail Cap(c_a), veh/h	853		527	2048	554	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.2	0.0	10.3	8.2	26.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	0.2	16.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	1.3	2.2	12.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.1	0.0	11.3	8.4	42.6	0.0
LnGrp LOS	B		B	A	D	
Approach Vol, veh/h	412			552	481	
Approach Delay, s/veh	17.1			9.0	42.6	
Approach LOS	B			A	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		29.4	9.6	41.0		50.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		24.9	5.1	36.5		46.1
Max Q Clear Time (g_c+I1), s		22.4	4.6	14.3		6.7
Green Ext Time (p_c), s		0.8	0.0	6.9		9.3

Intersection Summary

HCM 7th Control Delay, s/veh	22.5
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	332	343	523	479	142	30
Future Volume (vph)	332	343	523	479	142	30
Lane Group Flow (vph)	361	373	568	521	154	407
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	52.0	30.0	30.0	28.0	28.0
Total Split (%)	27.5%	65.0%	37.5%	37.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effct Green (s)	47.5	47.5	25.5	25.5	23.5	23.5
Actuated g/C Ratio	0.59	0.59	0.32	0.32	0.29	0.29
v/c Ratio	0.61	0.18	0.50	0.60	0.29	0.55
Control Delay (s/veh)	17.9	11.0	22.9	9.4	23.7	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.9	11.0	22.9	9.4	23.7	6.8
LOS	B	B	C	A	C	A
Approach Delay (s/veh)		14.4	16.4			11.4
Approach LOS		B	B			B
Queue Length 50th (m)	31.7	15.9	45.0	25.0	18.0	3.6
Queue Length 95th (m)	48.3	23.4	m56.9	m34.1	32.7	24.4
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	588	2125	1140	865	525	741
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.18	0.50	0.60	0.29	0.55

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.61

Intersection Signal Delay (s/veh): 14.6

Intersection LOS: B

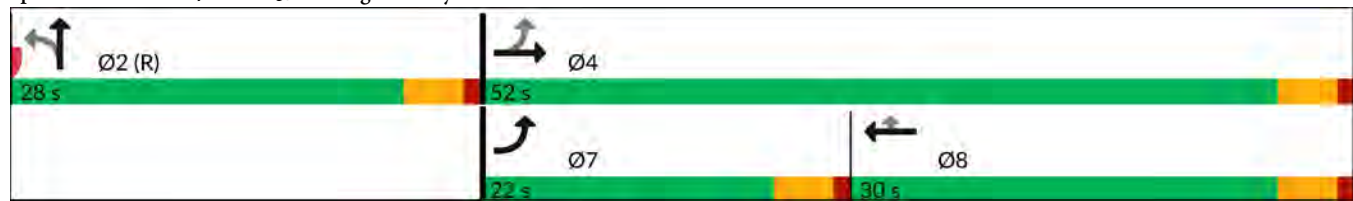
Intersection Capacity Utilization 82.1%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	343	0	0	523	479	142	30	344	0	0	0
Future Volume (veh/h)	332	343	0	0	523	479	142	30	344	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	361	373	0	0	568	0	154	33	374			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	644	2110	0	0	1133		523	38	433			
Arrive On Green	0.22	0.59	0.00	0.00	0.11	0.00	0.29	0.29	0.29			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	130	1475			
Grp Volume(v), veh/h	361	373	0	0	568	0	154	0	407			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1605			
Q Serve(g_s), s	8.9	3.8	0.0	0.0	12.1	0.0	5.3	0.0	19.2			
Cycle Q Clear(g_c), s	8.9	3.8	0.0	0.0	12.1	0.0	5.3	0.0	19.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.92			
Lane Grp Cap(c), veh/h	644	2110	0	0	1133		523	0	471			
V/C Ratio(X)	0.56	0.18	0.00	0.00	0.50		0.29	0.00	0.86			
Avail Cap(c_a), veh/h	644	2110	0	0	1133		523	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	11.6	7.4	0.0	0.0	29.8	0.0	21.8	0.0	26.7			
Incr Delay (d2), s/veh	3.5	0.2	0.0	0.0	1.6	0.0	1.4	0.0	18.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.6	1.7	0.0	0.0	6.1	0.0	2.7	0.0	10.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	7.6	0.0	0.0	31.4	0.0	23.3	0.0	45.3			
LnGrp LOS	B	A			C		C		D			
Approach Vol, veh/h		734			568			561				
Approach Delay, s/veh		11.3			31.4			39.2				
Approach LOS		B			C			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		28.0		52.0			22.0	30.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		23.5		47.5			17.5	25.5				
Max Q Clear Time (g_c+I1), s		21.2		5.8			10.9	14.1				
Green Ext Time (p_c), s		1.3		7.9			1.1	6.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.8									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

							
Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	289	342	92	313	227	68	139
Future Volume (vph)	289	342	92	313	227	68	139
Lane Group Flow (vph)	314	387	100	1140	158	163	151
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6	
Permitted Phases	4		8		6		6
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	42.0	10.0	37.0	28.0	28.0	28.0
Total Split (%)	18.8%	52.5%	12.5%	46.3%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Act Effct Green (s)	47.5	37.5	38.0	32.5	23.5	23.5	23.5
Actuated g/C Ratio	0.59	0.47	0.48	0.41	0.29	0.29	0.29
v/c Ratio	0.49	0.23	0.10	0.64	0.32	0.32	0.26
Control Delay (s/veh)	11.2	12.9	7.4	13.9	24.2	24.2	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.2	12.9	7.4	13.9	24.2	24.2	5.3
LOS	B	B	A	B	C	C	A
Approach Delay (s/veh)		12.1		13.4		18.1	
Approach LOS		B		B		B	
Queue Length 50th (m)	9.9	17.2	4.4	42.3	19.5	20.2	0.0
Queue Length 95th (m)	18.2	25.6	7.1	57.7	35.5	36.5	12.2
Internal Link Dist (m)		143.6		234.8		191.6	
Turn Bay Length (m)	100.0		100.0				75.0
Base Capacity (vph)	638	1671	1014	1776	499	511	576
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.23	0.10	0.64	0.32	0.32	0.26

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 14.0

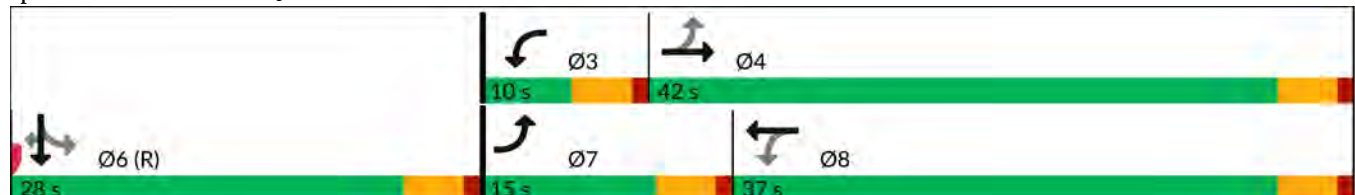
Intersection LOS: B

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	342	14	92	313	736	0	0	0	227	68	139
Future Volume (veh/h)	289	342	14	92	313	736	0	0	0	227	68	139
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	314	372	0	100	340	800				161	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	634	1666		1320	722	644				523	549	
Arrive On Green	0.13	0.47	0.00	0.07	0.41	0.41				0.29	0.29	0.00
Sat Flow, veh/h	3456	3647	0	3456	1777	1585				1781	1870	1585
Grp Volume(v), veh/h	314	372	0	100	340	800				161	195	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	1585				1781	1870	1585
Q Serve(g_s), s	3.5	5.0	0.0	1.3	11.2	32.5				5.6	6.6	0.0
Cycle Q Clear(g_c), s	3.5	5.0	0.0	1.3	11.2	32.5				5.6	6.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	634	1666		1320	722	644				523	549	
V/C Ratio(X)	0.50	0.22		0.08	0.47	1.24				0.31	0.35	
Avail Cap(c_a), veh/h	634	1666		1320	722	644				523	549	
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	1.00	1.00	1.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	15.9	12.6	0.0	11.4	17.4	23.8				21.9	22.3	0.0
Incr Delay (d2), s/veh	2.8	0.3	0.0	0.1	2.2	121.9				1.5	1.8	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(50%),veh/ln	1.7	2.3	0.0	0.6	5.6	35.0				2.8	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	12.9	0.0	11.5	19.6	145.6				23.5	24.1	0.0
LnGrp LOS	B	B		B	B	F				C	C	
Approach Vol, veh/h		686			1240						356	
Approach Delay, s/veh		15.5			100.3						23.8	
Approach LOS		B			F						C	
Timer - Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			10.0	42.0		28.0	15.0	37.0				
Change Period (Y+Rc), s			4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s			5.5	37.5		23.5	10.5	32.5				
Max Q Clear Time (g_c+I1), s			3.3	7.0		8.6	5.5	34.5				
Green Ext Time (p_c), s			0.1	7.1		3.1	0.8	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			62.9									
HCM 7th LOS			E									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↻	↻	↻	↻
Traffic Volume (vph)	614	47	281	187
Future Volume (vph)	614	47	281	187
Lane Group Flow (vph)	862	51	305	337
Turn Type	NA	pm+pt	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases		8		
Minimum Split (s)	22.5	9.5	22.5	22.5
Total Split (s)	46.0	9.6	55.6	24.4
Total Split (%)	57.5%	12.0%	69.5%	30.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Act Effect Green (s)	41.5	51.1	51.1	19.9
Actuated g/C Ratio	0.52	0.64	0.64	0.25
v/c Ratio	0.90	0.25	0.25	0.73
Control Delay (s/veh)	28.9	8.3	6.9	35.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.9	8.3	6.9	35.3
LOS	C	A	A	D
Approach Delay (s/veh)	28.9		7.1	35.3
Approach LOS	C		A	D
Queue Length 50th (m)	103.2	2.5	17.6	41.6
Queue Length 95th (m)	m#182.3	6.1	28.4	#77.3
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	959	208	1202	460
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.25	0.25	0.73

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 25.3

Intersection LOS: C

Intersection Capacity Utilization 68.6%

ICU Level of Service C

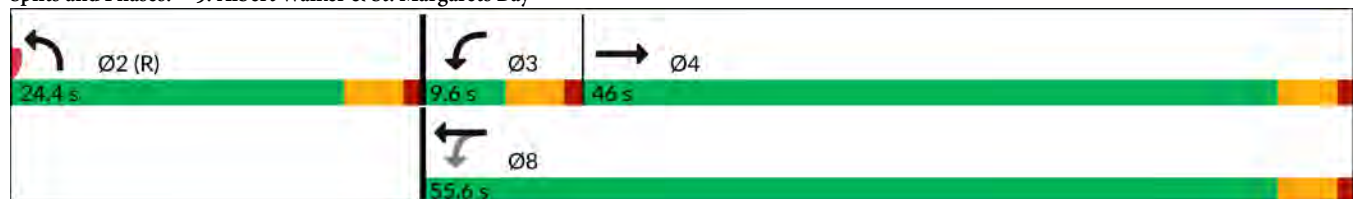
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	614	179	47	281	187	123
Future Volume (veh/h)	614	179	47	281	187	123
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	667	0	51	305	203	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	970		431	1195	441	
Arrive On Green	0.52	0.00	0.06	0.64	0.25	0.00
Sat Flow, veh/h	1870	0	1781	1870	1773	0
Grp Volume(v), veh/h	667	0	51	305	204	0
Grp Sat Flow(s),veh/h/ln	1870	0	1781	1870	1782	0
Q Serve(g_s), s	21.3	0.0	0.9	5.6	7.8	0.0
Cycle Q Clear(g_c), s	21.3	0.0	0.9	5.6	7.8	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	970		431	1195	443	
V/C Ratio(X)	0.69		0.12	0.26	0.46	
Avail Cap(c_a), veh/h	970		431	1195	443	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	14.4	0.0	10.0	6.2	25.5	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.6	0.5	3.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	0.5	2.7	4.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.4	0.0	10.5	6.8	28.9	0.0
LnGrp LOS	B		B	A	C	
Approach Vol, veh/h	667			356	204	
Approach Delay, s/veh	18.4			7.3	28.9	
Approach LOS	B			A	C	
Timer - Assigned Phs	2	3	4		8	
Phs Duration (G+Y+Rc), s	24.4	9.6	46.0		55.6	
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	
Max Green Setting (Gmax), s	19.9	5.1	41.5		51.1	
Max Q Clear Time (g_c+I1), s	9.8	2.9	23.3		7.6	
Green Ext Time (p_c), s	0.7	0.0	5.3		2.5	
Intersection Summary						
HCM 7th Control Delay, s/veh		16.9				
HCM 7th LOS		B				
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	62	12	141	1	24	188	1036	5	29	685
Future Volume (vph)	62	12	141	1	24	188	1036	5	29	685
Lane Group Flow (vph)	0	80	153	1	69	204	1126	5	32	831
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	25.0	25.0	25.0	20.0	54.0	54.0	11.0	45.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	27.8%	22.2%	60.0%	60.0%	12.2%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)		20.5	20.5	20.5	20.5	60.5	49.5	49.5	47.0	40.5
Actuated g/C Ratio		0.23	0.23	0.23	0.23	0.67	0.55	0.55	0.52	0.45
v/c Ratio		0.25	0.32	0.00	0.16	0.40	0.57	0.01	0.10	0.52
Control Delay (s/veh)		31.1	7.0	27.0	14.9	7.9	14.7	0.0	6.8	18.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		31.1	7.0	27.0	14.9	7.9	14.7	0.0	6.8	18.8
LOS		C	A	C	B	A	B	A	A	B
Approach Delay (s/veh)		15.3			15.1		13.6			18.4
Approach LOS		B			B		B			B
Queue Length 50th (m)		11.4	0.0	0.1	3.6	11.4	63.0	0.0	1.6	51.3
Queue Length 95th (m)		23.6	14.5	1.4	13.8	19.2	80.9	0.0	4.3	67.8
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)						150.0		30.0		
Base Capacity (vph)		316	482	302	422	514	1968	913	309	1594
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.25	0.32	0.00	0.16	0.40	0.57	0.01	0.10	0.52

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay (s/veh): 15.5

Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	12	141	1	24	40	188	1036	5	29	685	79
Future Volume (veh/h)	62	12	141	1	24	40	188	1036	5	29	685	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	13	0	1	26	0	204	1126	0	32	745	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	63		439	426		644	1955		420	1599	
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.00	0.17	0.55	0.00	0.07	0.45	0.00
Sat Flow, veh/h	1243	277	1585	1525	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	80	0	0	1	26	0	204	1126	0	32	745	0
Grp Sat Flow(s),veh/h/ln	1519	0	1585	1525	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	3.3	0.0	0.0	0.0	1.0	0.0	4.1	18.8	0.0	0.8	13.1	0.0
Cycle Q Clear(g_c), s	4.3	0.0	0.0	0.0	1.0	0.0	4.1	18.8	0.0	0.8	13.1	0.0
Prop In Lane	0.84		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	420	0		439	426		644	1955		420	1599	
V/C Ratio(X)	0.19	0.00		0.00	0.06		0.32	0.58		0.08	0.47	
Avail Cap(c_a), veh/h	420	0		439	426		644	1955		420	1599	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.7	0.0	0.0	26.8	27.2	0.0	8.1	13.3	0.0	11.0	17.2	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.0	0.3	0.0	1.3	1.2	0.0	0.4	1.0	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(50%),veh/ln	1.7	0.0	0.0	0.0	0.5	0.0	2.0	8.8	0.0	0.4	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.7	0.0	0.0	26.9	27.5	0.0	9.4	14.6	0.0	11.4	18.2	0.0
LnGrp LOS	C			C	C		A	B		B	B	
Approach Vol, veh/h		80			27			1330			777	
Approach Delay, s/veh		29.7			27.5			13.8			17.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	54.0		25.0	20.0	45.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	49.5		20.5	15.5	40.5		20.5				
Max Q Clear Time (g_c+I1), s	2.8	20.8		6.3	6.1	15.1		3.0				
Green Ext Time (p_c), s	0.0	21.2		0.7	0.7	13.5		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			16.0									
HCM 7th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	622	0	0	367
Future Vol, veh/h	0	0	722	0	0	426
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	785	0	0	463
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1248	785	0	0	785	0
Stage 1	785	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	191	393	-	-	834	-
Stage 1	450	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	191	393	-	-	834	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	834	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	622	0	0	367	0
Future Vol, veh/h	0	0	0	0	0	0	0	722	0	0	426	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	785	0	0	463	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1248	1248	463	1248	1248	785	463	0	0	785	0	0
Stage 1	463	463	-	785	785	-	-	-	-	-	-	-
Stage 2	785	785	-	463	463	-	-	-	-	-	-	-
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	150	173	599	150	173	393	1098	-	-	834	-	-
Stage 1	579	564	-	386	404	-	-	-	-	-	-	-
Stage 2	386	404	-	579	564	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	150	173	599	150	173	393	1098	-	-	834	-	-
Mov Cap-2 Maneuver	150	173	-	150	173	-	-	-	-	-	-	-
Stage 1	579	564	-	386	404	-	-	-	-	-	-	-
Stage 2	386	404	-	579	564	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		0		0		0			0		
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1098	-	-	-	-	834	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-				

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	119	617	5	42	351
Future Vol, veh/h	19	138	716	6	49	408
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	150	778	7	53	443
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1332	782	0	0	785	0
Stage 1	782	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	170	395	-	-	834	-
Stage 1	451	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	159	395	-	-	834	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	26.42	0		1.03		
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	335	834	-	
HCM Lane V/C Ratio	-	-	0.51	0.064	-	
HCM Ctrl Dly (s/v)	-	-	26.4	9.6	-	
HCM Lane LOS	-	-	D	A	-	
HCM 95th %tile Q(veh)	-	-	2.8	0.2	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	6	10	810	334	78
Future Vol, veh/h	23	7	12	940	388	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	8	13	1022	422	99
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1470	422	521	0	-	0
Stage 1	422	-	-	-	-	-
Stage 2	1048	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	140	632	1046	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	136	632	1046	-	-	-
Mov Cap-2 Maneuver	136	-	-	-	-	-
Stage 1	643	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	31.76	0.11		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	23	-	167	-	-	
HCM Lane V/C Ratio	0.012	-	0.196	-	-	
HCM Ctrl Dly (s/v)	8.5	0	31.8	-	-	
HCM Lane LOS	A	A	D	-	-	
HCM 95th %tile Q(veh)	0	-	0.7	-	-	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	865	402	20
Future Vol, veh/h	23	12	12	1004	467	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	13	13	1091	508	25
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1092	520	533	0	-	0
Stage 1	520	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	223	555	1033	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	220	555	1033	-	-	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	20.03	0.2		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	43	-	277	-	-	
HCM Lane V/C Ratio	0.013	-	0.137	-	-	
HCM Ctrl Dly (s/v)	8.5	0.1	20	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.5	-	-	

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↗↘
Traffic Volume (vph)	379	314	108	400	605
Future Volume (vph)	440	365	125	464	702
Lane Group Flow (vph)	412	341	117	435	962
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	41.0	41.0	9.6	50.6	29.4
Total Split (%)	51.3%	51.3%	12.0%	63.3%	36.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Act Effct Green (s)	36.5	36.5	46.1	46.1	24.9
Actuated g/C Ratio	0.46	0.46	0.58	0.58	0.31
v/c Ratio	0.48	0.81	0.26	0.21	0.86
Control Delay (s/veh)	11.1	23.5	10.7	9.6	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.1	23.5	10.7	9.6	32.6
LOS	B	C	B	A	C
Approach Delay (s/veh)	16.7			9.8	32.6
Approach LOS	B			A	C
Queue Length 50th (m)	23.4	29.3	7.2	14.8	63.2
Queue Length 95th (m)	40.3	#63.8	m13.4	m22.8	#95.7
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	859	420	458	2062	1118
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.48	0.81	0.26	0.21	0.86

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay (s/veh): 21.8

Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Prospect & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	379	314	108	400	605	280
Future Volume (veh/h)	440	365	125	464	702	325
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	0.96		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	412	0	117	435	481	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	853		527	2048	554	
Arrive On Green	0.46	0.00	0.06	0.58	0.31	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	412	0	117	435	481	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	12.3	0.0	2.6	4.7	20.4	0.0
Cycle Q Clear(g_c), s	12.3	0.0	2.6	4.7	20.4	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	853		527	2048	554	
V/C Ratio(X)	0.48		0.22	0.21	0.87	
Avail Cap(c_a), veh/h	853		527	2048	554	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.2	0.0	10.3	8.2	26.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	0.2	16.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	1.3	2.2	12.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.1	0.0	11.3	8.4	42.6	0.0
LnGrp LOS	B		B	A	D	
Approach Vol, veh/h	412			552	481	
Approach Delay, s/veh	17.1			9.0	42.6	
Approach LOS	B			A	D	
Timer - Assigned Phs	2	3	4		8	
Phs Duration (G+Y+Rc), s	29.4	9.6	41.0		50.6	
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	
Max Green Setting (Gmax), s	24.9	5.1	36.5		46.1	
Max Q Clear Time (g_c+I1), s	22.4	4.6	14.3		6.7	
Green Ext Time (p_c), s	0.8	0.0	6.9		9.3	
Intersection Summary						
HCM 7th Control Delay, s/veh		22.5				
HCM 7th LOS		C				

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	332	343	523	479	142	30
Future Volume (vph)	385	398	607	556	165	35
Lane Group Flow (vph)	361	373	568	521	154	407
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.0	52.0	30.0	30.0	28.0	28.0
Total Split (%)	27.5%	65.0%	37.5%	37.5%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effct Green (s)	47.5	47.5	25.5	25.5	23.5	23.5
Actuated g/C Ratio	0.59	0.59	0.32	0.32	0.29	0.29
v/c Ratio	0.61	0.18	0.50	0.60	0.29	0.55
Control Delay (s/veh)	17.9	11.0	22.9	9.4	23.7	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.9	11.0	22.9	9.4	23.7	6.8
LOS	B	B	C	A	C	A
Approach Delay (s/veh)		14.4	16.4			11.4
Approach LOS		B	B			B
Queue Length 50th (m)	31.7	15.9	45.0	25.0	18.0	3.6
Queue Length 95th (m)	48.3	23.4	m56.9	m34.1	32.7	24.4
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	588	2125	1140	865	525	741
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.18	0.50	0.60	0.29	0.55

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.61

Intersection Signal Delay (s/veh): 14.6

Intersection LOS: B

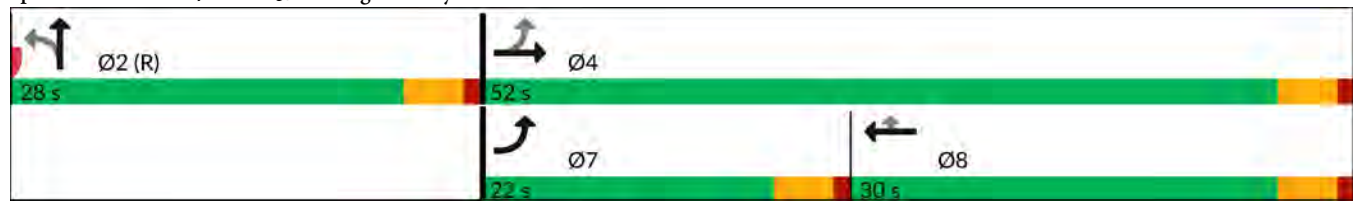
Intersection Capacity Utilization 82.1%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	343	0	0	523	479	142	30	344	0	0	0
Future Volume (veh/h)	385	398	0	0	607	556	165	35	399	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	361	373	0	0	568	0	154	33	374			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	644	2110	0	0	1133		523	38	433			
Arrive On Green	0.22	0.59	0.00	0.00	0.11	0.00	0.29	0.29	0.29			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	130	1475			
Grp Volume(v), veh/h	361	373	0	0	568	0	154	0	407			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1605			
Q Serve(g_s), s	8.9	3.8	0.0	0.0	12.1	0.0	5.3	0.0	19.2			
Cycle Q Clear(g_c), s	8.9	3.8	0.0	0.0	12.1	0.0	5.3	0.0	19.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.92			
Lane Grp Cap(c), veh/h	644	2110	0	0	1133		523	0	471			
V/C Ratio(X)	0.56	0.18	0.00	0.00	0.50		0.29	0.00	0.86			
Avail Cap(c_a), veh/h	644	2110	0	0	1133		523	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	11.6	7.4	0.0	0.0	29.8	0.0	21.8	0.0	26.7			
Incr Delay (d2), s/veh	3.5	0.2	0.0	0.0	1.6	0.0	1.4	0.0	18.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.6	1.7	0.0	0.0	6.1	0.0	2.7	0.0	10.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	7.6	0.0	0.0	31.4	0.0	23.3	0.0	45.3			
LnGrp LOS	B	A			C		C		D			
Approach Vol, veh/h		734			568			561				
Approach Delay, s/veh		11.3			31.4			39.2				
Approach LOS		B			C			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		28.0		52.0			22.0	30.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		23.5		47.5			17.5	25.5				
Max Q Clear Time (g_c+I1), s		21.2		5.8			10.9	14.1				
Green Ext Time (p_c), s		1.3		7.9			1.1	6.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.8									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

							
Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	289	342	92	313	227	68	139
Future Volume (vph)	336	397	107	363	264	79	161
Lane Group Flow (vph)	314	387	100	1140	158	163	151
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6	
Permitted Phases	4		8		6		6
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	15.0	42.0	10.0	37.0	28.0	28.0	28.0
Total Split (%)	18.8%	52.5%	12.5%	46.3%	35.0%	35.0%	35.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Act Effct Green (s)	47.5	37.5	38.0	32.5	23.5	23.5	23.5
Actuated g/C Ratio	0.59	0.47	0.48	0.41	0.29	0.29	0.29
v/c Ratio	0.49	0.23	0.10	0.64	0.32	0.32	0.26
Control Delay (s/veh)	11.2	12.9	7.4	13.9	24.2	24.2	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.2	12.9	7.4	13.9	24.2	24.2	5.3
LOS	B	B	A	B	C	C	A
Approach Delay (s/veh)		12.1		13.4		18.1	
Approach LOS		B		B		B	
Queue Length 50th (m)	9.9	17.2	4.4	42.3	19.5	20.2	0.0
Queue Length 95th (m)	18.2	25.6	7.1	57.7	35.5	36.5	12.2
Internal Link Dist (m)		143.6		234.8		191.6	
Turn Bay Length (m)	100.0		100.0				75.0
Base Capacity (vph)	638	1671	1014	1776	499	511	576
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.23	0.10	0.64	0.32	0.32	0.26

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.64

Intersection Signal Delay (s/veh): 14.0

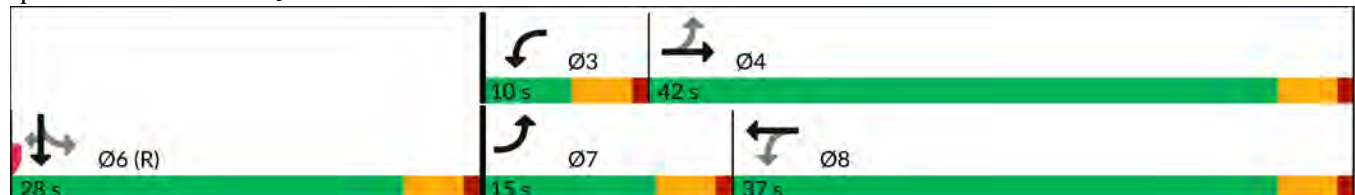
Intersection LOS: B

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	342	14	92	313	736	0	0	0	227	68	139
Future Volume (veh/h)	336	397	16	107	363	854	0	0	0	264	79	161
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach	No			No						No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	314	372	0	100	340	800				161	195	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	634	1666		1320	722	644				523	549	
Arrive On Green	0.13	0.47	0.00	0.07	0.41	0.41				0.29	0.29	0.00
Sat Flow, veh/h	3456	3647	0	3456	1777	1585				1781	1870	1585
Grp Volume(v), veh/h	314	372	0	100	340	800				161	195	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	1585				1781	1870	1585
Q Serve(g_s), s	3.5	5.0	0.0	1.3	11.2	32.5				5.6	6.6	0.0
Cycle Q Clear(g_c), s	3.5	5.0	0.0	1.3	11.2	32.5				5.6	6.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	634	1666		1320	722	644				523	549	
V/C Ratio(X)	0.50	0.22		0.08	0.47	1.24				0.31	0.35	
Avail Cap(c_a), veh/h	634	1666		1320	722	644				523	549	
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	1.00	1.00	1.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	15.9	12.6	0.0	11.4	17.4	23.8				21.9	22.3	0.0
Incr Delay (d2), s/veh	2.8	0.3	0.0	0.1	2.2	121.9				1.5	1.8	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(50%),veh/ln	1.7	2.3	0.0	0.6	5.6	35.0				2.8	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	12.9	0.0	11.5	19.6	145.6				23.5	24.1	0.0
LnGrp LOS	B	B		B	B	F				C	C	
Approach Vol, veh/h	686			1240			356					
Approach Delay, s/veh	15.5			100.3			23.8					
Approach LOS	B			F			C					
Timer - Assigned Phs	3			4			6			8		
Phs Duration (G+Y+Rc), s	10.0			42.0			28.0			15.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	5.5			37.5			23.5			10.5		
Max Q Clear Time (g_c+I1), s	3.3			7.0			8.6			5.5		
Green Ext Time (p_c), s	0.1			7.1			3.1			0.8		
Intersection Summary												
HCM 7th Control Delay, s/veh	62.9											
HCM 7th LOS	E											

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↩	↩	↩	↩
Traffic Volume (vph)	614	47	281	187
Future Volume (vph)	713	55	326	217
Lane Group Flow (vph)	862	51	305	337
Turn Type	NA	pm+pt	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases		8		
Minimum Split (s)	22.5	9.5	22.5	22.5
Total Split (s)	46.0	9.6	55.6	24.4
Total Split (%)	57.5%	12.0%	69.5%	30.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Act Effect Green (s)	41.5	51.1	51.1	19.9
Actuated g/C Ratio	0.52	0.64	0.64	0.25
v/c Ratio	0.90	0.25	0.25	0.73
Control Delay (s/veh)	28.9	8.3	6.9	35.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.9	8.3	6.9	35.3
LOS	C	A	A	D
Approach Delay (s/veh)	28.9		7.1	35.3
Approach LOS	C		A	D
Queue Length 50th (m)	103.2	2.5	17.6	41.6
Queue Length 95th (m)	m#182.3	6.1	28.4	#77.3
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	959	208	1202	460
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.90	0.25	0.25	0.73

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.90

Intersection Signal Delay (s/veh): 25.3

Intersection LOS: C

Intersection Capacity Utilization 68.6%

ICU Level of Service C

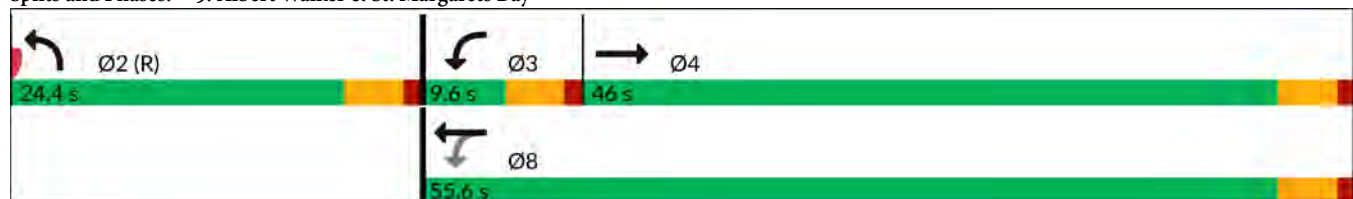
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	614	179	47	281	187	123
Future Volume (veh/h)	713	208	55	326	217	143
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	667	0	51	305	203	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	970		431	1195	441	
Arrive On Green	0.52	0.00	0.06	0.64	0.25	0.00
Sat Flow, veh/h	1870	0	1781	1870	1773	0
Grp Volume(v), veh/h	667	0	51	305	204	0
Grp Sat Flow(s),veh/h/ln	1870	0	1781	1870	1782	0
Q Serve(g_s), s	21.3	0.0	0.9	5.6	7.8	0.0
Cycle Q Clear(g_c), s	21.3	0.0	0.9	5.6	7.8	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	970		431	1195	443	
V/C Ratio(X)	0.69		0.12	0.26	0.46	
Avail Cap(c_a), veh/h	970		431	1195	443	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	14.4	0.0	10.0	6.2	25.5	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.6	0.5	3.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	0.5	2.7	4.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	18.4	0.0	10.5	6.8	28.9	0.0
LnGrp LOS	B		B	A	C	
Approach Vol, veh/h	667			356	204	
Approach Delay, s/veh	18.4			7.3	28.9	
Approach LOS	B			A	C	
Timer - Assigned Phs	2	3	4		8	
Phs Duration (G+Y+Rc), s	24.4	9.6	46.0		55.6	
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	
Max Green Setting (Gmax), s	19.9	5.1	41.5		51.1	
Max Q Clear Time (g_c+I1), s	9.8	2.9	23.3		7.6	
Green Ext Time (p_c), s	0.7	0.0	5.3		2.5	
Intersection Summary						
HCM 7th Control Delay, s/veh		16.9				
HCM 7th LOS		B				
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	62	12	141	1	24	188	1036	5	29	685
Future Volume (vph)	72	14	164	1	28	218	1203	6	34	795
Lane Group Flow (vph)	0	80	153	1	69	204	1126	5	32	831
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	25.0	25.0	25.0	25.0	25.0	20.0	54.0	54.0	11.0	45.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	27.8%	22.2%	60.0%	60.0%	12.2%	50.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)		20.5	20.5	20.5	20.5	60.5	49.5	49.5	47.0	40.5
Actuated g/C Ratio		0.23	0.23	0.23	0.23	0.67	0.55	0.55	0.52	0.45
v/c Ratio		0.25	0.32	0.00	0.16	0.40	0.57	0.01	0.10	0.52
Control Delay (s/veh)		31.1	7.0	27.0	14.9	7.9	14.7	0.0	6.8	18.8
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		31.1	7.0	27.0	14.9	7.9	14.7	0.0	6.8	18.8
LOS		C	A	C	B	A	B	A	A	B
Approach Delay (s/veh)		15.3			15.1		13.6			18.4
Approach LOS		B			B		B			B
Queue Length 50th (m)		11.4	0.0	0.1	3.6	11.4	63.0	0.0	1.6	51.3
Queue Length 95th (m)		23.6	14.5	1.4	13.8	19.2	80.9	0.0	4.3	67.8
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)						150.0		30.0		
Base Capacity (vph)		316	482	302	422	514	1968	913	309	1594
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.25	0.32	0.00	0.16	0.40	0.57	0.01	0.10	0.52

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.57

Intersection Signal Delay (s/veh): 15.5

Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	12	141	1	24	40	188	1036	5	29	685	79
Future Volume (veh/h)	72	14	164	1	28	46	218	1203	6	34	795	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	13	0	1	26	0	204	1126	0	32	745	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	357	63		439	426		644	1955		420	1599	
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.00	0.17	0.55	0.00	0.07	0.45	0.00
Sat Flow, veh/h	1243	277	1585	1525	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	80	0	0	1	26	0	204	1126	0	32	745	0
Grp Sat Flow(s),veh/h/ln	1519	0	1585	1525	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	3.3	0.0	0.0	0.0	1.0	0.0	4.1	18.8	0.0	0.8	13.1	0.0
Cycle Q Clear(g_c), s	4.3	0.0	0.0	0.0	1.0	0.0	4.1	18.8	0.0	0.8	13.1	0.0
Prop In Lane	0.84		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	420	0		439	426		644	1955		420	1599	
V/C Ratio(X)	0.19	0.00		0.00	0.06		0.32	0.58		0.08	0.47	
Avail Cap(c_a), veh/h	420	0		439	426		644	1955		420	1599	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.7	0.0	0.0	26.8	27.2	0.0	8.1	13.3	0.0	11.0	17.2	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.0	0.3	0.0	1.3	1.2	0.0	0.4	1.0	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(50%),veh/ln	1.7	0.0	0.0	0.0	0.5	0.0	2.0	8.8	0.0	0.4	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.7	0.0	0.0	26.9	27.5	0.0	9.4	14.6	0.0	11.4	18.2	0.0
LnGrp LOS	C			C	C		A	B		B	B	
Approach Vol, veh/h		80			27			1330			777	
Approach Delay, s/veh		29.7			27.5			13.8			17.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	54.0		25.0	20.0	45.0		25.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	49.5		20.5	15.5	40.5		20.5				
Max Q Clear Time (g_c+I1), s	2.8	20.8		6.3	6.1	15.1		3.0				
Green Ext Time (p_c), s	0.0	21.2		0.7	0.7	13.5		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			16.0									
HCM 7th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	5.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	622	0	0	367
Future Vol, veh/h	24	316	681	8	93	431
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	100	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	292	629	7	86	398
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1199	629	0	0	637	0
Stage 1	629	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	205	482	-	-	947	-
Stage 1	531	-	-	-	-	-
Stage 2	566	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	186	482	-	-	947	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	514	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	23.53		0		1.63	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	186	482	947	-
HCM Lane V/C Ratio	-	-	0.119	0.606	0.091	-
HCM Ctrl Dly (s/v)	-	-	26.9	23.3	9.2	-
HCM Lane LOS	-	-	D	C	A	-
HCM 95th %tile Q(veh)	-	-	0.4	3.9	0.3	-

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	0	0	0	0	0	0	622	0	0	367	0
Future Volume (vph)	36	72	24	241	252	121	869	8	77	464	121
Lane Group Flow (vph)	39	117	26	262	274	132	803	9	84	429	132
Turn Type	Perm	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	4	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	23.0	10.5	47.4	47.4	9.6	46.5	46.5
Total Split (%)	28.8%	28.8%	28.8%	28.8%	28.8%	13.1%	59.3%	59.3%	12.0%	58.1%	58.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	14.3	14.3	14.3	14.3	14.3	36.5	32.2	32.2	35.2	31.5	31.5
Actuated g/C Ratio	0.22	0.22	0.22	0.22	0.22	0.57	0.51	0.51	0.55	0.50	0.50
v/c Ratio	0.21	0.27	0.09	0.62	0.49	0.24	0.84	0.01	0.31	0.46	0.15
Control Delay (s/veh)	27.5	20.9	24.5	32.4	8.3	6.1	24.0	0.0	8.1	13.0	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.5	20.9	24.5	32.4	8.3	6.1	24.0	0.0	8.1	13.0	2.5
LOS	C	C	C	C	A	A	C	A	A	B	A
Approach Delay (s/veh)		22.6		20.3			21.3			10.2	
Approach LOS		C		C			C			B	
Queue Length 50th (m)	4.1	9.2	2.7	30.3	2.0	5.3	81.1	0.0	3.3	33.3	0.0
Queue Length 95th (m)	12.9	23.9	9.2	59.0	20.4	12.2	141.3	0.0	8.4	58.4	7.3
Internal Link Dist (m)		134.0		99.9			189.2			228.4	
Turn Bay Length (m)			50.0			80.0		50.0	100.0		50.0
Base Capacity (vph)	266	604	419	615	694	555	1296	1128	274	1277	1128
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.19	0.06	0.43	0.39	0.24	0.62	0.01	0.31	0.34	0.12

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 63.6

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 18.0

Intersection LOS: B

Intersection Capacity Utilization 31.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Prospect & Ragged Lake/EP Middle



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	622	0	0	367	0
Future Volume (veh/h)	36	72	36	24	241	252	121	869	8	77	464	121
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	78	39	26	262	274	132	803	9	84	429	132
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	263	131	348	418	354	578	946	802	327	927	786
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.07	0.51	0.51	0.06	0.50	0.50
Sat Flow, veh/h	1003	1176	588	1404	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	39	0	117	26	262	274	132	803	9	84	429	132
Grp Sat Flow(s),veh/h/ln	1003	0	1764	1404	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.3	0.0	3.5	1.0	8.1	10.4	2.2	23.9	0.2	1.4	9.6	2.9
Cycle Q Clear(g_c), s	10.5	0.0	3.5	4.5	8.1	10.4	2.2	23.9	0.2	1.4	9.6	2.9
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	209	0	394	348	418	354	578	946	802	327	927	786
V/C Ratio(X)	0.19	0.00	0.30	0.07	0.63	0.77	0.23	0.85	0.01	0.26	0.46	0.17
Avail Cap(c_a), veh/h	274	0	509	440	539	457	619	1250	1060	361	1224	1037
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	20.7	22.6	22.5	23.4	7.4	13.7	7.9	11.3	10.6	8.9
Incr Delay (d2), s/veh	0.4	0.0	0.4	0.1	1.6	6.1	0.2	4.4	0.0	0.4	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(50%),veh/ln	0.6	0.0	1.6	0.4	4.1	4.9	1.0	12.2	0.1	0.6	4.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.7	0.0	21.1	22.7	24.1	29.5	7.5	18.1	7.9	11.7	10.9	9.0
LnGrp LOS	C		C	C	C	C	A	B	A	B	B	A
Approach Vol, veh/h		156			562			944			645	
Approach Delay, s/veh		22.8			26.7			16.5			10.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	37.0		18.8	9.0	36.3		18.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	42.9		18.5	6.0	42.0		18.5				
Max Q Clear Time (g_c+I1), s	3.4	25.9		12.5	4.2	11.6		12.4				
Green Ext Time (p_c), s	0.0	6.6		0.4	0.1	4.3		1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh			17.8									
HCM 7th LOS			B									

Intersection						
Int Delay, s/veh	50.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	119	617	5	42	351
Future Vol, veh/h	150	344	1112	44	111	512
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	50	0	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	139	318	1027	41	103	473
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1726	1048	0	0	1068	0
Stage 1	1048	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 98	~ 277	-	-	652	-
Stage 1	338	-	-	-	-	-
Stage 2	504	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 82	~ 277	-	-	652	-
Mov Cap-2 Maneuver	~ 82	-	-	-	-	-
Stage 1	338	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	231.5	0		2.06		
HCM LOS	F					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	82	277	652	-
HCM Lane V/C Ratio	-	-	1.685	1.148	0.157	-
HCM Ctrl Dly (s/v)	-	-	\$ 441.8	139.8	11.5	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	11.5	13.8	0.6	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s				
+: Computation Not Defined		*: All major volume in platoon				



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←	→	←	→	→	←
Traffic Volume (vph)	20	6	10	810	334	78
Future Volume (vph)	22	43	131	1415	523	84
Lane Group Flow (vph)	24	47	142	1307	483	91
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	57.5	57.5	57.5	57.5
Total Split (%)	28.1%	28.1%	71.9%	71.9%	71.9%	71.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Max	Max	Max	Max
Act Effect Green (s)	6.6	6.6	66.6	66.6	66.6	66.6
Actuated g/C Ratio	0.09	0.09	0.88	0.88	0.88	0.88
v/c Ratio	0.15	0.26	0.18	0.79	0.29	0.06
Control Delay (s/veh)	34.1	14.0	2.3	10.2	2.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.1	14.0	2.3	10.2	2.3	0.6
LOS	C	B	A	B	A	A
Approach Delay (s/veh)	20.8			9.4	2.0	
Approach LOS	C			A	A	
Queue Length 50th (m)	3.7	0.0	3.4	85.9	13.1	0.0
Queue Length 95th (m)	9.4	8.5	8.2	#241.3	24.2	2.3
Internal Link Dist (m)	318.4			698.0	426.1	
Turn Bay Length (m)			100.0			80.0
Base Capacity (vph)	425	415	798	1647	1647	1412
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.18	0.79	0.29	0.06

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 76.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay (s/veh): 7.8

Intersection LOS: A

Intersection Capacity Utilization 47.9%

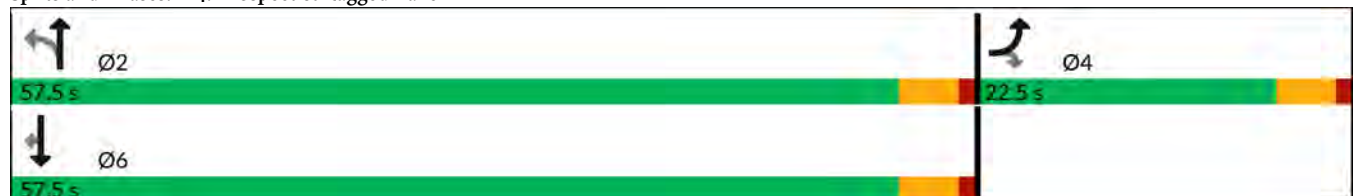
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Prospect & Ragged Lake



						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	20	6	10	810	334	78
Future Volume (veh/h)	22	43	131	1415	523	84
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	47	142	1307	483	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	99	88	830	1510	1510	1280
Arrive On Green	0.06	0.06	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1781	1585	973	1870	1870	1585
Grp Volume(v), veh/h	24	47	142	1307	483	91
Grp Sat Flow(s),veh/h/ln	1781	1585	973	1870	1870	1585
Q Serve(g_s), s	0.8	1.9	2.9	29.3	4.4	0.8
Cycle Q Clear(g_c), s	0.8	1.9	7.3	29.3	4.4	0.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	99	88	830	1510	1510	1280
V/C Ratio(X)	0.24	0.54	0.17	0.87	0.32	0.07
Avail Cap(c_a), veh/h	489	435	830	1510	1510	1280
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	29.7	30.2	2.6	4.0	1.6	1.3
Incr Delay (d2), s/veh	1.3	5.0	0.4	6.9	0.6	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.9	0.7	13.8	1.9	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	31.0	35.2	3.0	10.9	2.2	1.4
LnGrp LOS	C	D	A	B	A	A
Approach Vol, veh/h	71			1449	574	
Approach Delay, s/veh	33.8			10.1	2.1	
Approach LOS	C			B	A	
Timer - Assigned Phs	2			4		6
Phs Duration (G+Y+Rc), s		57.5		8.1		57.5
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		53.0		18.0		53.0
Max Q Clear Time (g_c+I1), s		31.3		3.9		6.4
Green Ext Time (p_c), s		20.7		0.2		12.0
Intersection Summary						
HCM 7th Control Delay, s/veh			8.7			
HCM 7th LOS			A			

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	865	402	20
Future Vol, veh/h	22	11	11	1474	596	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	12	12	1362	551	24
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1267	563	575	0	-	0
Stage 1	563	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	173	525	997	-	-	-
Stage 1	569	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	525	997	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Approach	EB		NB		SB	
HCM Ctrl Dly, s/v	24.49		0.18		0	
HCM LOS	C					
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	SBT	SBR
Capacity (veh/h)	31		-	220	-	-
HCM Lane V/C Ratio	0.012		-	0.163	-	-
HCM Ctrl Dly (s/v)	8.7		0.1	24.5	-	-
HCM Lane LOS	A		A	C	-	-
HCM 95th %tile Q(veh)	0		-	0.6	-	-

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↖↖
Traffic Volume (vph)	379	314	108	400	605
Future Volume (vph)	408	410	208	431	922
Lane Group Flow (vph)	429	367	186	454	1338
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Detector Phase	4	4	3	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	29.0	29.0	12.0	41.0	49.0
Total Split (%)	32.2%	32.2%	13.3%	45.6%	54.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	Max
Act Effect Green (s)	23.3	23.3	35.3	35.3	44.5
Actuated g/C Ratio	0.26	0.26	0.40	0.40	0.50
v/c Ratio	0.87	0.53	0.79	0.32	0.75
Control Delay (s/veh)	50.9	6.1	44.0	19.1	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	50.9	6.1	44.0	19.1	17.8
LOS	D	A	D	B	B
Approach Delay (s/veh)	30.3			26.4	17.8
Approach LOS	C			C	B
Queue Length 50th (m)	69.8	0.0	20.8	27.4	77.1
Queue Length 95th (m)	#117.6	19.6	#48.1	38.6	102.8
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	519	707	236	1471	1787
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.52	0.79	0.31	0.75

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.8

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 23.4

Intersection LOS: C

Intersection Capacity Utilization 58.4%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Prospect & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	379	314	108	400	605	280
Future Volume (veh/h)	408	410	208	431	922	573
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	429	0	186	454	669	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	486		275	1405	896	
Arrive On Green	0.26	0.00	0.08	0.40	0.50	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	429	0	186	454	669	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	19.5	0.0	6.5	7.8	26.5	0.0
Cycle Q Clear(g_c), s	19.5	0.0	6.5	7.8	26.5	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	486		275	1405	896	
V/C Ratio(X)	0.88		0.68	0.32	0.75	
Avail Cap(c_a), veh/h	518		275	1466	896	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	31.5	0.0	22.9	18.5	17.5	0.0
Incr Delay (d2), s/veh	15.7	0.0	6.4	0.1	5.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	0.0	3.5	3.6	13.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	47.2	0.0	29.3	18.7	23.2	0.0
LnGrp LOS	D		C	B	C	
Approach Vol, veh/h	429			640	669	
Approach Delay, s/veh	47.2			21.8	23.2	
Approach LOS	D			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		49.0	12.0	27.5		39.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		44.5	7.5	24.5		36.5
Max Q Clear Time (g_c+I1), s		28.5	8.5	21.5		9.8
Green Ext Time (p_c), s		4.2	0.0	1.5		8.3
Intersection Summary						
HCM 7th Control Delay, s/veh			28.6			
HCM 7th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	332	343	523	479	142	30
Future Volume (vph)	358	404	708	642	153	32
Lane Group Flow (vph)	389	439	770	698	166	477
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	53.0	32.0	32.0	27.0	27.0
Total Split (%)	26.3%	66.3%	40.0%	40.0%	33.8%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effect Green (s)	48.5	48.5	27.5	27.5	22.5	22.5
Actuated g/C Ratio	0.61	0.61	0.34	0.34	0.28	0.28
v/c Ratio	0.76	0.20	0.63	0.73	0.33	0.62
Control Delay (s/veh)	23.4	7.4	24.7	8.7	25.0	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.4	7.4	24.7	8.7	25.0	8.0
LOS	C	A	C	A	C	A
Approach Delay (s/veh)		14.9	17.1			12.4
Approach LOS		B	B			B
Queue Length 50th (m)	29.8	14.2	50.6	8.6	19.9	5.4
Queue Length 95th (m)	#69.7	20.5	68.5	43.9	35.6	30.2
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	510	2169	1230	953	503	764
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.20	0.63	0.73	0.33	0.62

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 0.76

Intersection Signal Delay (s/veh): 15.4

Intersection LOS: B

Intersection Capacity Utilization 82.1%

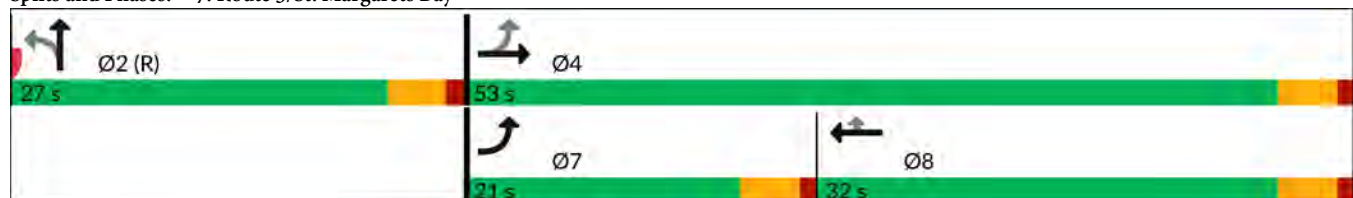
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	332	343	0	0	523	479	142	30	344	0	0	0
Future Volume (veh/h)	358	404	0	0	708	642	153	32	407	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	389	439	0	0	770	0	166	35	442			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	592	2154	0	0	1222		501	33	418			
Arrive On Green	0.21	0.61	0.00	0.00	0.34	0.00	0.28	0.28	0.28			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	118	1485			
Grp Volume(v), veh/h	389	439	0	0	770	0	166	0	477			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1603			
Q Serve(g_s), s	9.5	4.4	0.0	0.0	14.5	0.0	5.9	0.0	22.5			
Cycle Q Clear(g_c), s	9.5	4.4	0.0	0.0	14.5	0.0	5.9	0.0	22.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.93			
Lane Grp Cap(c), veh/h	592	2154	0	0	1222		501	0	451			
V/C Ratio(X)	0.66	0.20	0.00	0.00	0.63		0.33	0.00	1.06			
Avail Cap(c_a), veh/h	592	2154	0	0	1222		501	0	451			
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	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	12.4	7.1	0.0	0.0	22.0	0.0	22.8	0.0	28.8			
Incr Delay (d2), s/veh	5.6	0.2	0.0	0.0	2.5	0.0	1.8	0.0	58.6			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	2.0	0.0	0.0	7.1	0.0	3.0	0.0	16.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.1	7.3	0.0	0.0	24.5	0.0	24.6	0.0	87.3			
LnGrp LOS	B	A			C		C		F			
Approach Vol, veh/h		828			770			643				
Approach Delay, s/veh		12.4			24.5			71.1				
Approach LOS		B			C			E				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		27.0		53.0			21.0	32.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		22.5		48.5			16.5	27.5				
Max Q Clear Time (g_c+I1), s		24.5		6.4			11.5	16.5				
Green Ext Time (p_c), s		0.0		9.6			1.0	7.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			33.4									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

								
Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	289	342	92	313	736	227	68	139
Future Volume (vph)	311	377	129	367	877	270	73	150
Lane Group Flow (vph)	338	426	140	399	953	185	187	163
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8			6	
Permitted Phases	4		8		8	6		6
Detector Phase	7	4	3	8	8	6	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	9.8	47.3	9.5	47.0	47.0	23.2	23.2	23.2
Total Split (%)	12.3%	59.1%	11.9%	58.8%	58.8%	29.0%	29.0%	29.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	Max	Max	Max
Act Effect Green (s)	29.5	25.4	27.9	22.7	22.7	19.2	19.2	19.2
Actuated g/C Ratio	0.48	0.41	0.46	0.37	0.37	0.31	0.31	0.31
v/c Ratio	0.34	0.29	0.14	0.30	0.81	0.35	0.34	0.27
Control Delay (s/veh)	7.9	12.2	6.6	13.2	7.7	21.9	21.8	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.9	12.2	6.6	13.2	7.7	21.9	21.8	5.7
LOS	A	B	A	B	A	C	C	A
Approach Delay (s/veh)		10.3		9.1			16.9	
Approach LOS		B		A			B	
Queue Length 50th (m)	8.8	16.4	3.4	15.7	2.1	14.9	15.0	0.0
Queue Length 95th (m)	13.4	24.1	6.1	23.1	19.1	45.1	45.2	13.9
Internal Link Dist (m)		143.6		251.6			188.4	
Turn Bay Length (m)	100.0		100.0		60.0			75.0
Base Capacity (vph)	987	2556	974	2552	1406	533	545	614
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.17	0.14	0.16	0.68	0.35	0.34	0.27

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 61.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay (s/veh): 10.9

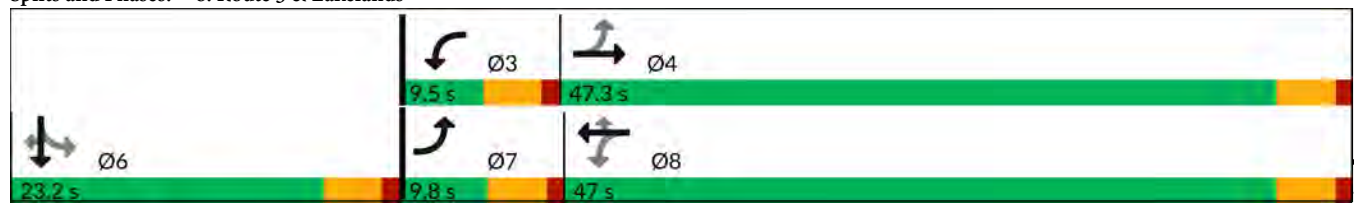
Intersection LOS: B

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	289	342	14	92	313	736	0	0	0	227	68	139
Future Volume (veh/h)	311	377	15	129	367	877	0	0	0	270	73	150
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	338	410	0	140	399	0				186	229	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	1045	1074		1017	1009					636	668	
Arrive On Green	0.10	0.30	0.00	0.08	0.28	0.00				0.36	0.36	0.00
Sat Flow, veh/h	3456	3647	0	3456	3554	1585				1781	1870	1585
Grp Volume(v), veh/h	338	410	0	140	399	0				186	229	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	1585				1781	1870	1585
Q Serve(g_s), s	3.5	4.8	0.0	1.4	4.7	0.0				3.9	4.7	0.0
Cycle Q Clear(g_c), s	3.5	4.8	0.0	1.4	4.7	0.0				3.9	4.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	1045	1074		1017	1009					636	668	
V/C Ratio(X)	0.32	0.38		0.14	0.40					0.29	0.34	
Avail Cap(c_a), veh/h	1045	2904		1060	2883					636	668	
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	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	11.2	14.4	0.0	11.1	15.1	0.0				12.1	12.3	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.1	0.3	0.0				1.2	1.4	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
%ile BackOfQ(50%),veh/ln	1.5	2.2	0.0	0.6	2.1	0.0				1.9	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.4	14.6	0.0	11.1	15.4	0.0				13.3	13.7	0.0
LnGrp LOS	B	B		B	B					B	B	
Approach Vol, veh/h		748			539						415	
Approach Delay, s/veh		13.2			14.3						13.5	
Approach LOS		B			B						B	
Timer - Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			8.8	20.3		23.2	9.8	19.4				
Change Period (Y+Rc), s			4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s			5.0	42.8		18.7	5.3	42.5				
Max Q Clear Time (g_c+I1), s			3.4	6.8		6.7	5.5	6.7				
Green Ext Time (p_c), s			0.1	8.4		3.3	0.0	8.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			13.6									
HCM 7th LOS			B									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	EBT	WBL	WBT	NBL
Traffic Volume (vph)	564	47	270	187
Future Volume (vph)	729	51	328	256
Lane Group Flow (vph)	1084	54	345	394
Turn Type	NA	Perm	NA	Prot
Protected Phases	4		8	2
Permitted Phases		8		
Detector Phase	4	8	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	54.0	54.0	54.0	26.0
Total Split (%)	67.5%	67.5%	67.5%	32.5%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	Max
Act Effect Green (s)	47.6	47.6	47.6	21.6
Actuated g/C Ratio	0.61	0.61	0.61	0.28
v/c Ratio	0.97	0.56	0.30	0.79
Control Delay (s/veh)	35.7	37.3	8.1	38.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.7	37.3	8.1	38.1
LOS	D	D	A	D
Approach Delay (s/veh)	35.7		12.0	38.1
Approach LOS	D		B	D
Queue Length 50th (m)	132.2	4.3	21.9	51.9
Queue Length 95th (m)	#233.5	#23.5	34.8	#95.6
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	1166	100	1195	501
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.93	0.54	0.29	0.79

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 78.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay (s/veh): 31.2

Intersection LOS: C

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

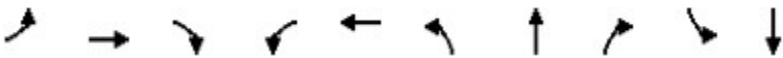
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	564	139	47	270	187	110
Future Volume (veh/h)	729	301	51	328	256	119
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	767	0	54	345	269	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	938		246	938	624	
Arrive On Green	0.50	0.00	0.50	0.50	0.35	0.00
Sat Flow, veh/h	1870	0	831	1870	1775	0
Grp Volume(v), veh/h	767	0	54	345	270	0
Grp Sat Flow(s),veh/h/ln	1870	0	831	1870	1782	0
Q Serve(g_s), s	21.2	0.0	3.6	6.9	7.1	0.0
Cycle Q Clear(g_c), s	21.2	0.0	24.8	6.9	7.1	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	938		246	938	626	
V/C Ratio(X)	0.82		0.22	0.37	0.43	
Avail Cap(c_a), veh/h	1513		502	1513	626	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	12.9	0.0	23.4	9.3	15.2	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.4	0.2	2.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	0.0	0.8	3.2	3.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.8	0.0	23.8	9.6	17.3	0.0
LnGrp LOS	B		C	A	B	
Approach Vol, veh/h	767			399	270	
Approach Delay, s/veh	14.8			11.5	17.3	
Approach LOS	B			B	B	
Timer - Assigned Phs	2		4		8	
Phs Duration (G+Y+Rc), s	26.0		35.2		35.2	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	21.5		49.5		49.5	
Max Q Clear Time (g_c+I1), s	9.1		23.2		26.8	
Green Ext Time (p_c), s	1.2		7.5		3.0	
Intersection Summary						
HCM 7th Control Delay, s/veh			14.4			
HCM 7th LOS			B			
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	62	12	141	1	24	188	1036	5	29	685
Future Volume (vph)	188	13	182	1	26	221	1116	5	31	738
Lane Group Flow (vph)	0	218	198	1	75	240	1213	5	34	935
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	30.4	30.4	30.4	30.4	30.4	20.4	50.0	50.0	9.6	39.2
Total Split (%)	33.8%	33.8%	33.8%	33.8%	33.8%	22.7%	55.6%	55.6%	10.7%	43.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Act Effect Green (s)		25.9	25.9	25.9	25.9	55.1	45.5	45.5	39.8	34.7
Actuated g/C Ratio		0.29	0.29	0.29	0.29	0.61	0.51	0.51	0.44	0.39
v/c Ratio		0.59	0.33	0.00	0.14	0.55	0.67	0.01	0.15	0.68
Control Delay (s/veh)		35.1	5.4	23.0	12.2	15.8	19.0	0.0	10.0	25.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		35.1	5.4	23.0	12.2	15.8	19.0	0.0	10.0	25.6
LOS		D	A	C	B	B	B	A	A	C
Approach Delay (s/veh)		21.0			12.4		18.4			25.1
Approach LOS		C			B		B			C
Queue Length 50th (m)		32.2	0.0	0.1	3.5	17.0	78.6	0.0	2.1	67.8
Queue Length 95th (m)		55.5	14.8	1.2	13.3	37.2	100.4	0.0	5.5	89.1
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)						150.0		30.0		
Base Capacity (vph)		371	601	280	524	433	1809	845	225	1365
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.59	0.33	0.00	0.14	0.55	0.67	0.01	0.15	0.68

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0.6 (1%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.68

Intersection Signal Delay (s/veh): 20.8

Intersection LOS: C

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	12	141	1	24	40	188	1036	5	29	685	79
Future Volume (veh/h)	188	13	182	1	26	43	221	1116	5	31	738	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	204	14	0	1	28	0	240	1213	0	34	802	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	473	27		548	538		561	1797		324	1370	
Arrive On Green	0.29	0.29	0.00	0.29	0.29	0.00	0.18	0.51	0.00	0.06	0.39	0.00
Sat Flow, veh/h	1374	94	1585	1524	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	218	0	0	1	28	0	240	1213	0	34	802	0
Grp Sat Flow(s),veh/h/ln	1469	0	1585	1524	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	10.8	0.0	0.0	0.0	1.0	0.0	5.8	23.1	0.0	1.0	16.1	0.0
Cycle Q Clear(g_c), s	11.8	0.0	0.0	0.0	1.0	0.0	5.8	23.1	0.0	1.0	16.1	0.0
Prop In Lane	0.94		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	500	0		548	538		561	1797		324	1370	
V/C Ratio(X)	0.44	0.00		0.00	0.05		0.43	0.68		0.10	0.59	
Avail Cap(c_a), veh/h	500	0		548	538		561	1797		324	1370	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.4	0.0	0.0	22.8	23.2	0.0	11.6	16.7	0.0	15.2	21.9	0.0
Incr Delay (d2), s/veh	2.8	0.0	0.0	0.0	0.2	0.0	2.4	2.1	0.0	0.6	1.8	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(50%),veh/ln	4.7	0.0	0.0	0.0	0.5	0.0	3.0	11.0	0.0	0.5	7.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.2	0.0	0.0	22.8	23.4	0.0	13.9	18.8	0.0	15.8	23.8	0.0
LnGrp LOS	C			C	C		B	B		B	C	
Approach Vol, veh/h		218			29			1453			836	
Approach Delay, s/veh		30.2			23.3			18.0			23.5	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	50.0		30.4	20.4	39.2		30.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	45.5		25.9	15.9	34.7		25.9				
Max Q Clear Time (g_c+I1), s	3.0	25.1		13.8	7.8	18.1		3.0				
Green Ext Time (p_c), s	0.0	16.8		2.3	0.8	10.6		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			20.9									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	425	0	0	869
Future Vol, veh/h	0	0	425	0	0	869
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	462	0	0	945
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1407	462	0	0	462	0
Stage 1	462	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	153	600	-	-	1099	-
Stage 1	634	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	600	-	-	1099	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1099	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	425	0	0	869	0
Future Vol, veh/h	0	0	0	0	0	0	0	425	0	0	869	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	462	0	0	945	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1407	1407	945	1407	1407	462	945	0	0	462	0	0
Stage 1	945	945	-	462	462	-	-	-	-	-	-	-
Stage 2	462	462	-	945	945	-	-	-	-	-	-	-
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	117	139	318	117	139	600	726	-	-	1099	-	-
Stage 1	315	341	-	580	565	-	-	-	-	-	-	-
Stage 2	580	565	-	315	341	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	117	139	318	117	139	600	726	-	-	1099	-	-
Mov Cap-2 Maneuver	117	139	-	117	139	-	-	-	-	-	-	-
Stage 1	315	341	-	580	565	-	-	-	-	-	-	-
Stage 2	580	565	-	315	341	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		0		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	726	-	-	-	-	1099	-	-				
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-				
HCM Ctrl Dly (s/v)	0	-	-	0	0	0	-	-				
HCM Lane LOS	A	-	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-				

Intersection						
Int Delay, s/veh	1.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	65	420	5	64	862
Future Vol, veh/h	7	65	420	5	64	862
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	71	457	5	70	937
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1535	459	0	0	462	0
Stage 1	459	-	-	-	-	-
Stage 2	1076	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	128	602	-	-	1099	-
Stage 1	636	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	120	602	-	-	1099	-
Mov Cap-2 Maneuver	120	-	-	-	-	-
Stage 1	636	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	15.15		0		0.59	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	433	1099	-	
HCM Lane V/C Ratio	-	-	0.181	0.063	-	
HCM Ctrl Dly (s/v)	-	-	15.2	8.5	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.7	0.2	-	

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	78	7	4	567	852	27
Future Vol, veh/h	78	7	4	567	852	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	8	4	616	926	29
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1551	926	955	0	-	0
Stage 1	926	-	-	-	-	-
Stage 2	625	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	125	326	720	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	124	326	720	-	-	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	81.3	0.07		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	13	-	131	-	-	
HCM Lane V/C Ratio	0.006	-	0.708	-	-	
HCM Ctrl Dly (s/v)	10	0	81.3	-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0	-	4	-	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	635	860	20
Future Vol, veh/h	20	10	10	635	860	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	11	11	690	935	22
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1313	946	957	0	-	0
Stage 1	946	-	-	-	-	-
Stage 2	367	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	162	316	717	-	-	-
Stage 1	377	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	159	316	717	-	-	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	371	-	-	-	-	-
Stage 2	672	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	27.68	0.3		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	56	-	191	-	-	
HCM Lane V/C Ratio	0.015	-	0.171	-	-	
HCM Ctrl Dly (s/v)	10.1	0.1	27.7	-	-	
HCM Lane LOS	B	A	D	-	-	
HCM 95th %tile Q(veh)	0	-	0.6	-	-	

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↖↖
Traffic Volume (vph)	513	610	259	750	409
Future Volume (vph)	513	610	259	750	409
Lane Group Flow (vph)	558	663	282	815	677
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	42.0	42.0	9.6	51.6	23.4
Total Split (%)	56.0%	56.0%	12.8%	68.8%	31.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Act Effct Green (s)	37.5	0.0	47.1	47.1	18.9
Actuated g/C Ratio	0.50	0.00	0.63	0.63	0.25
v/c Ratio	0.59	1.00	0.69	0.36	0.72
Control Delay (s/veh)	16.6	40.8	17.2	7.3	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.6	40.8	17.2	7.3	25.7
LOS	B	D	B	A	C
Approach Delay (s/veh)	29.7			9.8	25.7
Approach LOS	C			A	C
Queue Length 50th (m)	52.7	0.0	15.5	25.7	36.5
Queue Length 95th (m)	81.8	#59.1	#28.7	35.0	54.2
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	941	663	409	2247	940
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	1.00	0.69	0.36	0.72

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 21.5

Intersection LOS: C

Intersection Capacity Utilization 71.0%

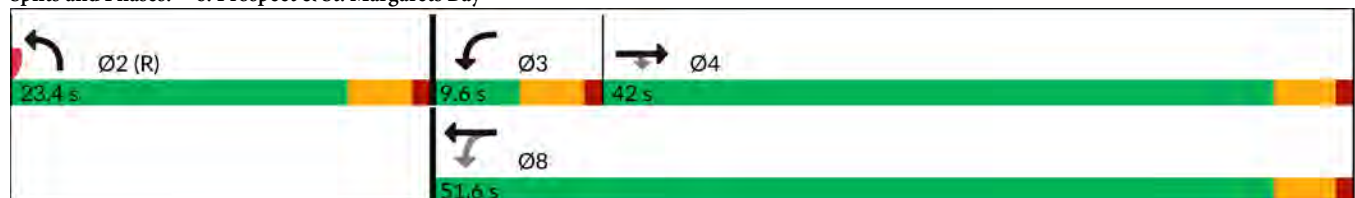
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Prospect & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	513	610	259	750	409	213
Future Volume (veh/h)	513	610	259	750	409	213
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	558	0	282	815	339	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	935		500	2232	449	
Arrive On Green	0.50	0.00	0.07	0.63	0.25	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	558	0	282	815	339	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	15.9	0.0	5.1	8.3	13.2	0.0
Cycle Q Clear(g_c), s	15.9	0.0	5.1	8.3	13.2	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	935		500	2232	449	
V/C Ratio(X)	0.60		0.56	0.37	0.76	
Avail Cap(c_a), veh/h	935		500	2232	449	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	13.4	0.0	11.4	6.7	25.9	0.0
Incr Delay (d2), s/veh	2.8	0.0	4.5	0.5	11.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	3.1	3.7	7.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.2	0.0	16.0	7.2	37.1	0.0
LnGrp LOS	B		B	A	D	
Approach Vol, veh/h	558			1097	339	
Approach Delay, s/veh	16.2			9.5	37.1	
Approach LOS	B			A	D	
Timer - Assigned Phs	2	3	4		8	
Phs Duration (G+Y+Rc), s	23.4	9.6	42.0		51.6	
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	
Max Green Setting (Gmax), s	18.9	5.1	37.5		47.1	
Max Q Clear Time (g_c+I1), s	15.2	7.1	17.9		10.3	
Green Ext Time (p_c), s	0.7	0.0	9.0		18.4	
Intersection Summary						
HCM 7th Control Delay, s/veh			16.0			
HCM 7th LOS			B			

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	576	969	985	349	96	4
Future Volume (vph)	576	969	985	349	96	4
Lane Group Flow (vph)	626	1053	1071	379	104	262
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	75.0	37.0	37.0	25.0	25.0
Total Split (%)	38.0%	75.0%	37.0%	37.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effect Green (s)	70.5	70.5	32.5	32.5	20.5	20.5
Actuated g/C Ratio	0.71	0.71	0.33	0.33	0.21	0.21
v/c Ratio	0.93	0.42	0.92	0.49	0.28	0.58
Control Delay (s/veh)	46.7	6.8	46.4	5.0	36.1	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.7	6.8	46.4	5.0	36.1	20.8
LOS	D	A	D	A	D	C
Approach Delay (s/veh)		21.6	35.6			25.1
Approach LOS		C	D			C
Queue Length 50th (m)	98.7	39.0	104.5	0.0	17.1	18.2
Queue Length 95th (m)	#167.1	49.3	#143.7	19.1	32.0	43.7
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	674	2523	1163	776	366	450
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.42	0.92	0.49	0.28	0.58

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 27.8

Intersection LOS: C

Intersection Capacity Utilization 85.3%

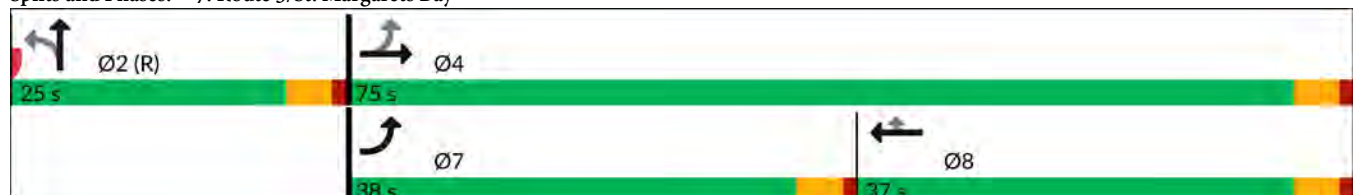
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	576	969	0	0	985	349	96	4	237	0	0	0
Future Volume (veh/h)	576	969	0	0	985	349	96	4	237	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	626	1053	0	0	1071	0	104	4	258			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	691	2505	0	0	1155		365	5	321			
Arrive On Green	0.34	0.70	0.00	0.00	0.32	0.00	0.20	0.20	0.20			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	24	1564			
Grp Volume(v), veh/h	626	1053	0	0	1071	0	104	0	262			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1589			
Q Serve(g_s), s	27.9	12.4	0.0	0.0	29.1	0.0	4.9	0.0	15.7			
Cycle Q Clear(g_c), s	27.9	12.4	0.0	0.0	29.1	0.0	4.9	0.0	15.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	691	2505	0	0	1155		365	0	326			
V/C Ratio(X)	0.91	0.42	0.00	0.00	0.93		0.28	0.00	0.80			
Avail Cap(c_a), veh/h	691	2505	0	0	1155		365	0	326			
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	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	24.4	6.2	0.0	0.0	32.6	0.0	33.6	0.0	37.8			
Incr Delay (d2), s/veh	17.8	0.5	0.0	0.0	13.9	0.0	2.0	0.0	18.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.8	5.5	0.0	0.0	15.8	0.0	2.5	0.0	8.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.2	6.7	0.0	0.0	46.6	0.0	35.5	0.0	56.6			
LnGrp LOS	D	A			D		D		E			
Approach Vol, veh/h		1679			1071			366				
Approach Delay, s/veh		19.9			46.6			50.6				
Approach LOS		B			D			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		25.0		75.0			38.0	37.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		20.5		70.5			33.5	32.5				
Max Q Clear Time (g_c+I1), s		17.7		14.4			29.9	31.1				
Green Ext Time (p_c), s		1.0		31.4			1.4	1.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			32.7									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

							
Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	216	357	308	588	767	290	351
Future Volume (vph)	216	357	308	588	767	290	351
Lane Group Flow (vph)	235	412	335	1275	567	582	382
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6	
Permitted Phases	4		8		6		6
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	10.4	36.8	11.6	38.0	41.6	41.6	41.6
Total Split (%)	11.6%	40.9%	12.9%	42.2%	46.2%	46.2%	46.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Act Effct Green (s)	38.2	32.3	40.6	33.5	37.1	37.1	37.1
Actuated g/C Ratio	0.42	0.36	0.45	0.37	0.41	0.41	0.41
v/c Ratio	0.60	0.32	0.38	0.89	0.81	0.81	0.47
Control Delay (s/veh)	20.1	21.4	14.6	29.0	34.4	33.9	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.1	21.4	14.6	29.0	34.4	33.9	8.0
LOS	C	C	B	C	C	C	A
Approach Delay (s/veh)		20.9		26.0		27.6	
Approach LOS		C		C		C	
Queue Length 50th (m)	11.0	26.2	16.1	83.8	88.6	90.8	12.6
Queue Length 95th (m)	17.2	37.6	23.9	#126.4	#146.7	#148.9	33.9
Internal Link Dist (m)		142.2		253.9		186.5	
Turn Bay Length (m)	100.0		100.0				75.0
Base Capacity (vph)	390	1277	872	1432	700	721	815
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.32	0.38	0.89	0.81	0.81	0.47

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay (s/veh): 25.8

Intersection LOS: C

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	357	22	308	588	585	0	0	0	767	290	351
Future Volume (veh/h)	216	357	22	308	588	585	0	0	0	767	290	351
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	235	388	0	335	639	0				575	678	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	806	1275		1047	1323					734	771	
Arrive On Green	0.07	0.36	0.00	0.08	0.37	0.00				0.41	0.41	0.00
Sat Flow, veh/h	3456	3647	0	3456	3647	0				1781	1870	1585
Grp Volume(v), veh/h	235	388	0	335	639	0				575	678	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	0				1781	1870	1585
Q Serve(g_s), s	3.8	7.1	0.0	5.4	12.4	0.0				25.2	30.1	0.0
Cycle Q Clear(g_c), s	3.8	7.1	0.0	5.4	12.4	0.0				25.2	30.1	0.0
Prop In Lane	1.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	806	1275		1047	1323					734	771	
V/C Ratio(X)	0.29	0.30		0.32	0.48					0.78	0.88	
Avail Cap(c_a), veh/h	806	1275		1047	1323					734	771	
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	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	20.8	0.0	16.1	21.6	0.0				23.0	24.4	0.0
Incr Delay (d2), s/veh	0.9	0.6	0.0	0.8	1.3	0.0				8.2	13.6	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(50%),veh/ln	1.8	3.4	0.0	2.5	5.9	0.0				13.3	17.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.7	21.4	0.0	16.9	22.9	0.0				31.1	38.0	0.0
LnGrp LOS	B	C		B	C					C	D	
Approach Vol, veh/h		623			974						1253	
Approach Delay, s/veh		20.0			20.8						34.8	
Approach LOS		B			C						C	
Timer - Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			11.6	36.8		41.6	10.4	38.0				
Change Period (Y+Rc), s			4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s			7.1	32.3		37.1	5.9	33.5				
Max Q Clear Time (g_c+I1), s			7.4	9.1		32.1	5.8	14.4				
Green Ext Time (p_c), s			0.0	6.5		4.2	0.0	9.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			26.8									
HCM 7th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↩	↩	↩	↩
Traffic Volume (vph)	401	162	807	200
Future Volume (vph)	401	162	807	200
Lane Group Flow (vph)	789	176	877	451
Turn Type	NA	pm+pt	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases		8		
Minimum Split (s)	22.5	9.5	22.5	22.5
Total Split (s)	42.0	11.0	53.0	27.0
Total Split (%)	52.5%	13.8%	66.3%	33.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Act Effect Green (s)	37.5	48.5	48.5	22.5
Actuated g/C Ratio	0.47	0.61	0.61	0.28
v/c Ratio	0.91	0.74	0.77	0.85
Control Delay (s/veh)	35.1	31.8	17.4	40.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.1	31.8	17.4	40.3
LOS	D	C	B	D
Approach Delay (s/veh)	35.1		19.8	40.3
Approach LOS	D		B	D
Queue Length 50th (m)	98.5	10.5	88.6	55.4
Queue Length 95th (m)	#173.3	#39.3	137.6	#105.5
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	866	239	1141	530
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.91	0.74	0.77	0.85

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 29.1

Intersection LOS: C

Intersection Capacity Utilization 85.5%

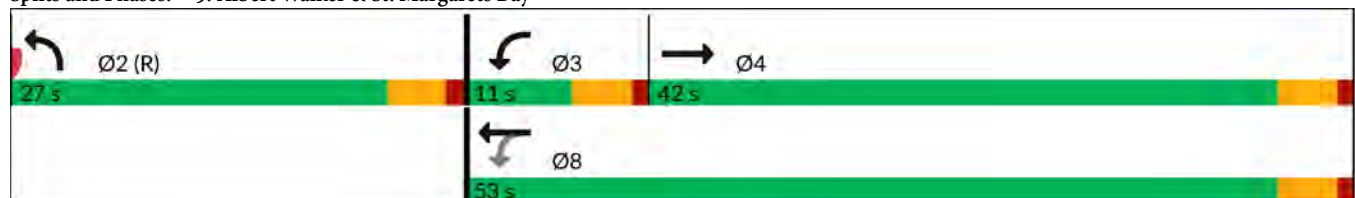
ICU Level of Service E

Analysis Period (min) 15

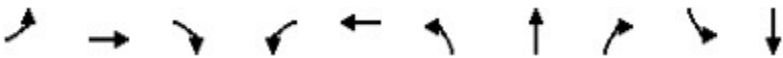
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	401	325	162	807	200	215
Future Volume (veh/h)	401	325	162	807	200	215
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	436	0	176	877	217	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	877		569	1134	499	
Arrive On Green	0.47	0.00	0.08	0.61	0.28	0.00
Sat Flow, veh/h	1870	0	1781	1870	1774	0
Grp Volume(v), veh/h	436	0	176	877	218	0
Grp Sat Flow(s),veh/h/ln	1870	0	1781	1870	1782	0
Q Serve(g_s), s	12.9	0.0	3.7	27.8	8.0	0.0
Cycle Q Clear(g_c), s	12.9	0.0	3.7	27.8	8.0	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	877		569	1134	501	
V/C Ratio(X)	0.50		0.31	0.77	0.44	
Avail Cap(c_a), veh/h	877		569	1134	501	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	14.7	0.0	9.7	11.7	23.5	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.4	5.2	2.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	1.9	14.4	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.7	0.0	11.1	16.8	26.3	0.0
LnGrp LOS	B		B	B	C	
Approach Vol, veh/h	436			1053	218	
Approach Delay, s/veh	16.7			15.9	26.3	
Approach LOS	B			B	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.0	11.0	42.0		53.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		22.5	6.5	37.5		48.5
Max Q Clear Time (g_c+I1), s		10.0	5.7	14.9		29.8
Green Ext Time (p_c), s		0.9	0.1	3.3		7.8
Intersection Summary						
HCM 7th Control Delay, s/veh			17.4			
HCM 7th LOS			B			
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	130	30	290	7	20	210	935	13	74	1224
Future Volume (vph)	130	30	290	7	20	210	935	13	74	1224
Lane Group Flow (vph)	0	174	315	8	69	228	1016	14	80	1504
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	23.0	17.0	56.6	56.6	10.4	50.0
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	18.9%	62.9%	62.9%	11.6%	55.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Act Effect Green (s)		18.5	18.5	18.5	18.5	62.5	52.1	52.1	51.4	45.5
Actuated g/C Ratio		0.21	0.21	0.21	0.21	0.69	0.58	0.58	0.57	0.51
v/c Ratio		0.63	0.66	0.04	0.18	0.69	0.49	0.01	0.22	0.84
Control Delay (s/veh)		43.8	20.4	29.4	14.8	28.8	12.2	0.0	6.8	24.3
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		43.8	20.4	29.4	14.8	28.8	12.2	0.0	6.8	24.3
LOS		D	C	C	B	C	B	A	A	C
Approach Delay (s/veh)		28.7			16.4		15.0			23.4
Approach LOS		C			B		B			C
Queue Length 50th (m)		27.6	18.8	1.1	3.1	21.2	50.4	0.0	3.8	110.5
Queue Length 95th (m)		#49.2	46.7	4.7	13.6	#49.9	65.1	0.0	7.8	141.4
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)						150.0		30.0		
Base Capacity (vph)		278	480	207	384	332	2071	957	357	1789
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.63	0.66	0.04	0.18	0.69	0.49	0.01	0.22	0.84

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.84

Intersection Signal Delay (s/veh): 20.9

Intersection LOS: C

Intersection Capacity Utilization 77.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	30	290	7	20	43	210	935	13	74	1224	160
Future Volume (veh/h)	130	30	290	7	20	43	210	935	13	74	1224	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	33	0	8	22	0	228	1016	0	80	1330	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	322	60		392	384		437	2057		475	1797	
Arrive On Green	0.21	0.21	0.00	0.21	0.21	0.00	0.14	0.58	0.00	0.07	0.51	0.00
Sat Flow, veh/h	1214	294	1585	1501	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	174	0	0	8	22	0	228	1016	0	80	1330	0
Grp Sat Flow(s),veh/h/ln	1509	0	1585	1501	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	8.9	0.0	0.0	0.0	0.9	0.0	4.4	15.2	0.0	1.8	26.6	0.0
Cycle Q Clear(g_c), s	9.7	0.0	0.0	0.4	0.9	0.0	4.4	15.2	0.0	1.8	26.6	0.0
Prop In Lane	0.81		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	383	0		392	384		437	2057		475	1797	
V/C Ratio(X)	0.45	0.00		0.02	0.06		0.52	0.49		0.17	0.74	
Avail Cap(c_a), veh/h	383	0		392	384		437	2057		475	1797	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	0.0	0.0	28.6	28.7	0.0	13.7	11.2	0.0	9.1	17.6	0.0
Incr Delay (d2), s/veh	3.9	0.0	0.0	0.1	0.3	0.0	4.4	0.9	0.0	0.8	2.8	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(50%),veh/ln	4.1	0.0	0.0	0.2	0.4	0.0	3.3	7.0	0.0	0.9	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.5	0.0	0.0	28.6	29.0	0.0	18.1	12.0	0.0	9.9	20.4	0.0
LnGrp LOS	D			C	C		B	B		A	C	
Approach Vol, veh/h		174			30			1244			1410	
Approach Delay, s/veh		36.5			28.9			13.1			19.8	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	56.6		23.0	17.0	50.0		23.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.9	52.1		18.5	12.5	45.5		18.5				
Max Q Clear Time (g_c+I1), s	3.8	17.2		11.7	6.4	28.6		2.9				
Green Ext Time (p_c), s	0.0	22.4		1.1	0.6	14.9		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			18.0									
HCM 7th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	425	0	0	869
Future Vol, veh/h	0	0	493	0	0	1009
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	536	0	0	1097
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1633	536	0	0	536	0
Stage 1	536	-	-	-	-	-
Stage 2	1097	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	111	545	-	-	1032	-
Stage 1	587	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	111	545	-	-	1032	-
Mov Cap-2 Maneuver	111	-	-	-	-	-
Stage 1	587	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	0	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	-	1032	-	
HCM Lane V/C Ratio	-	-	-	-	-	
HCM Ctrl Dly (s/v)	-	-	0	0	-	
HCM Lane LOS	-	-	A	A	-	
HCM 95th %tile Q(veh)	-	-	-	0	-	

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	425	0	0	869	0
Future Vol, veh/h	0	0	0	0	0	0	0	493	0	0	1009	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0	0	536	0	0	1097	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1633	1633	1097	1633	1633	536	1097	0	0	536	0	0
Stage 1	1097	1097	-	536	536	-	-	-	-	-	-	-
Stage 2	536	536	-	1097	1097	-	-	-	-	-	-	-
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	81	101	259	81	101	545	636	-	-	1032	-	-
Stage 1	258	289	-	529	523	-	-	-	-	-	-	-
Stage 2	529	523	-	258	289	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	81	101	259	81	101	545	636	-	-	1032	-	-
Mov Cap-2 Maneuver	81	101	-	81	101	-	-	-	-	-	-	-
Stage 1	258	289	-	529	523	-	-	-	-	-	-	-
Stage 2	529	523	-	258	289	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	0		0		0		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	636	-	-	-	-	-	1032	-	-			
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-	-			
HCM Ctrl Dly (s/v)	0	-	-	0	0	0	-	-	-			
HCM Lane LOS	A	-	-	A	A	A	-	-	-			
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	65	420	5	64	862
Future Vol, veh/h	8	75	488	6	74	1001
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	250	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	82	530	7	80	1088
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1783	534	0	0	537	0
Stage 1	534	-	-	-	-	-
Stage 2	1249	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	90	546	-	-	1031	-
Stage 1	588	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	546	-	-	1031	-
Mov Cap-2 Maneuver	83	-	-	-	-	-
Stage 1	588	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	18.56		0		0.6	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT		NBRWBLn1		SBL	SBT
Capacity (veh/h)	-		-		355	1031
HCM Lane V/C Ratio	-		-		0.254	0.078
HCM Ctrl Dly (s/v)	-		-		18.6	8.8
HCM Lane LOS	-		-		C	A
HCM 95th %tile Q(veh)	-		-		1	0.3

Intersection						
Int Delay, s/veh	13.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	78	7	4	567	852	27
Future Vol, veh/h	91	8	5	658	989	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	80
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	9	5	715	1075	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1801	1075	1109	0	-	0
Stage 1	1075	-	-	-	-	-
Stage 2	726	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 88	267	630	-	-	-
Stage 1	328	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 86	267	630	-	-	-
Mov Cap-2 Maneuver	~ 86	-	-	-	-	-
Stage 1	323	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	234.39	0.08	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	14	-	91	-	-
HCM Lane V/C Ratio	0.009	-	1.178	-	-
HCM Ctrl Dly (s/v)	10.8	0	234.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0	-	7.4	-	-

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

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	635	860	20
Future Vol, veh/h	23	12	12	737	998	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	13	13	801	1085	25
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1524	1097	1110	0	-	0
Stage 1	1097	-	-	-	-	-
Stage 2	427	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	119	258	627	-	-	-
Stage 1	319	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	116	258	627	-	-	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	312	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	38.94	0.39		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	58	-	143	-	-	
HCM Lane V/C Ratio	0.021	-	0.265	-	-	
HCM Ctrl Dly (s/v)	10.9	0.2	38.9	-	-	
HCM Lane LOS	B	A	E	-	-	
HCM 95th %tile Q(veh)	0.1	-	1	-	-	

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↖↖
Traffic Volume (vph)	513	610	259	750	409
Future Volume (vph)	596	708	301	871	475
Lane Group Flow (vph)	648	770	327	947	784
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	41.0	41.0	10.9	51.9	23.1
Total Split (%)	54.7%	54.7%	14.5%	69.2%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Act Effct Green (s)	36.5	0.0	47.4	47.4	18.6
Actuated g/C Ratio	0.49	0.00	0.63	0.63	0.25
v/c Ratio	0.71	1.00	0.92	0.42	0.85
Control Delay (s/veh)	20.4	37.8	42.8	7.6	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.4	37.8	42.8	7.6	32.8
LOS	C	D	D	A	C
Approach Delay (s/veh)	29.8			16.6	32.8
Approach LOS	C			B	C
Queue Length 50th (m)	67.9	0.0	18.3	31.0	46.0
Queue Length 95th (m)	105.0	#62.1	#50.8	41.5	#74.3
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	916	770	356	2261	927
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	1.00	0.92	0.42	0.85

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 75

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 1.00

Intersection Signal Delay (s/veh): 25.7

Intersection LOS: C

Intersection Capacity Utilization 71.0%

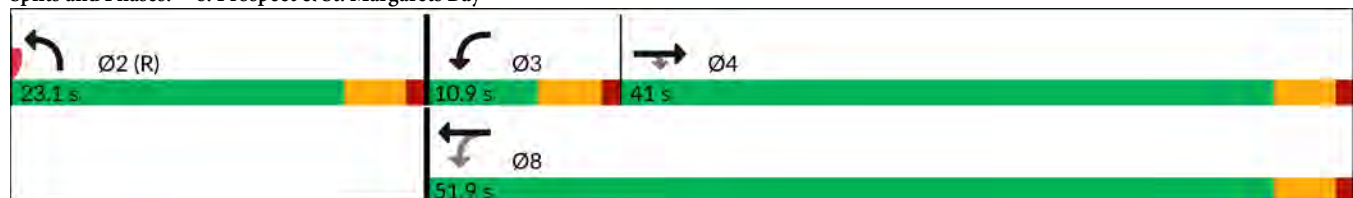
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Prospect & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	513	610	259	750	409	213
Future Volume (veh/h)	596	708	301	871	475	247
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	648	0	327	947	392	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	910		445	2246	442	
Arrive On Green	0.49	0.00	0.09	0.63	0.25	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	648	0	327	947	392	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	20.4	0.0	6.4	10.0	15.9	0.0
Cycle Q Clear(g_c), s	20.4	0.0	6.4	10.0	15.9	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	910		445	2246	442	
V/C Ratio(X)	0.71		0.74	0.42	0.89	
Avail Cap(c_a), veh/h	910		445	2246	442	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.1	0.0	13.4	6.9	27.2	0.0
Incr Delay (d2), s/veh	4.7	0.0	10.4	0.6	22.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	0.0	4.2	4.5	10.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.8	0.0	23.7	7.5	49.5	0.0
LnGrp LOS	B		C	A	D	
Approach Vol, veh/h	648			1274	392	
Approach Delay, s/veh	19.8			11.7	49.5	
Approach LOS	B			B	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		23.1	10.9	41.0		51.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.6	6.4	36.5		47.4
Max Q Clear Time (g_c+I1), s		17.9	8.4	22.4		12.0
Green Ext Time (p_c), s		0.2	0.0	8.3		21.1
Intersection Summary						
HCM 7th Control Delay, s/veh			20.4			
HCM 7th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	576	969	985	349	96	4
Future Volume (vph)	669	1125	1144	405	111	5
Lane Group Flow (vph)	727	1223	1243	440	121	304
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	33.0	66.0	33.0	33.0	24.0	24.0
Total Split (%)	36.7%	73.3%	36.7%	36.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effct Green (s)	61.5	61.5	28.5	28.5	19.5	19.5
Actuated g/C Ratio	0.68	0.68	0.32	0.32	0.22	0.22
v/c Ratio	1.12	0.50	1.10	0.55	0.31	0.71
Control Delay (s/veh)	98.5	5.0	88.2	5.3	32.3	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	98.5	5.0	88.2	5.3	32.3	31.9
LOS	F	A	F	A	C	C
Approach Delay (s/veh)		39.8	66.5			32.0
Approach LOS		D	E			C
Queue Length 50th (m)	~127.7	35.5	~129.3	0.0	17.7	32.4
Queue Length 95th (m)	m#169.5	m40.6	#168.7	19.7	32.7	#63.4
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	650	2445	1133	807	387	427
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.50	1.10	0.55	0.31	0.71

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 110

Control Type: Pretimed

Maximum v/c Ratio: 1.12

Intersection Signal Delay (s/veh): 50.1

Intersection LOS: D

Intersection Capacity Utilization 85.3%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

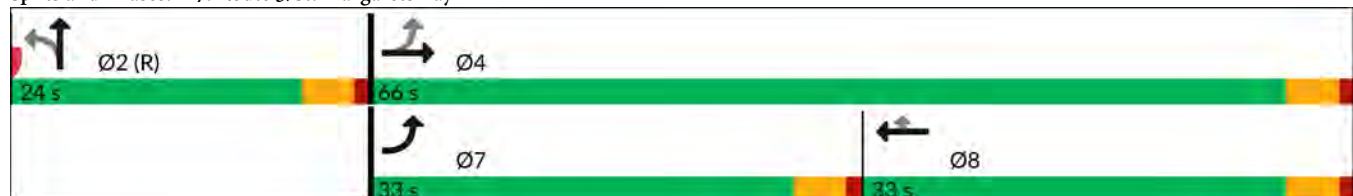
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

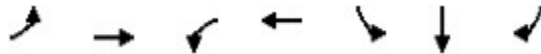
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	576	969	0	0	985	349	96	4	237	0	0	0
Future Volume (veh/h)	669	1125	0	0	1144	405	111	5	275	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	727	1223	0	0	1243	0	121	5	299			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	644	2428	0	0	1125		386	6	339			
Arrive On Green	0.32	0.68	0.00	0.00	0.32	0.00	0.22	0.22	0.22			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	26	1563			
Grp Volume(v), veh/h	727	1223	0	0	1243	0	121	0	304			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1589			
Q Serve(g_s), s	28.5	15.0	0.0	0.0	28.5	0.0	5.1	0.0	16.7			
Cycle Q Clear(g_c), s	28.5	15.0	0.0	0.0	28.5	0.0	5.1	0.0	16.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	644	2428	0	0	1125		386	0	344			
V/C Ratio(X)	1.13	0.50	0.00	0.00	1.10		0.31	0.00	0.88			
Avail Cap(c_a), veh/h	644	2428	0	0	1125		386	0	344			
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	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.1	6.9	0.0	0.0	30.8	0.0	29.6	0.0	34.1			
Incr Delay (d2), s/veh	76.5	0.7	0.0	0.0	60.2	0.0	2.1	0.0	26.3			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	28.7	6.7	0.0	0.0	22.7	0.0	2.6	0.0	9.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	101.6	7.6	0.0	0.0	91.0	0.0	31.7	0.0	60.5			
LnGrp LOS	F	A			F		C		E			
Approach Vol, veh/h		1950			1243			425				
Approach Delay, s/veh		42.7			91.0			52.3				
Approach LOS		D			F			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		24.0		66.0			33.0	33.0				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		19.5		61.5			28.5	28.5				
Max Q Clear Time (g_c+I1), s		18.7		17.0			30.5	30.5				
Green Ext Time (p_c), s		0.4		31.8			0.0	0.0				
Intersection Summary												
HCM 7th Control Delay, s/veh			60.4									
HCM 7th LOS			E									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												



Lane Group	EBL	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	216	357	308	588	767	290	351
Future Volume (vph)	251	414	358	683	890	337	408
Lane Group Flow (vph)	273	478	389	1480	658	675	443
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	7	4	3	8		6	
Permitted Phases	4		8		6		6
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	9.6	34.8	13.8	39.0	41.4	41.4	41.4
Total Split (%)	10.7%	38.7%	15.3%	43.3%	46.0%	46.0%	46.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Act Effect Green (s)	35.4	30.3	43.8	34.5	36.9	36.9	36.9
Actuated g/C Ratio	0.39	0.34	0.49	0.38	0.41	0.41	0.41
v/c Ratio	0.76	0.40	0.46	1.01	0.94	0.94	0.56
Control Delay (s/veh)	30.0	23.7	19.0	52.4	50.1	49.2	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.0	23.7	19.0	52.4	50.1	49.2	12.5
LOS	C	C	B	D	D	D	B
Approach Delay (s/veh)		26.0		45.5		40.4	
Approach LOS		C		D		D	
Queue Length 50th (m)	12.8	32.3	30.8	~127.7	112.4	115.1	25.6
Queue Length 95th (m)	#25.3	45.5	m35.3	m123.4	#185.2	#188.3	53.8
Internal Link Dist (m)		142.2		253.9		186.5	
Turn Bay Length (m)	100.0		100.0				75.0
Base Capacity (vph)	358	1199	846	1468	697	717	790
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.40	0.46	1.01	0.94	0.94	0.56

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.01

Intersection Signal Delay (s/veh): 40.1

Intersection LOS: D

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

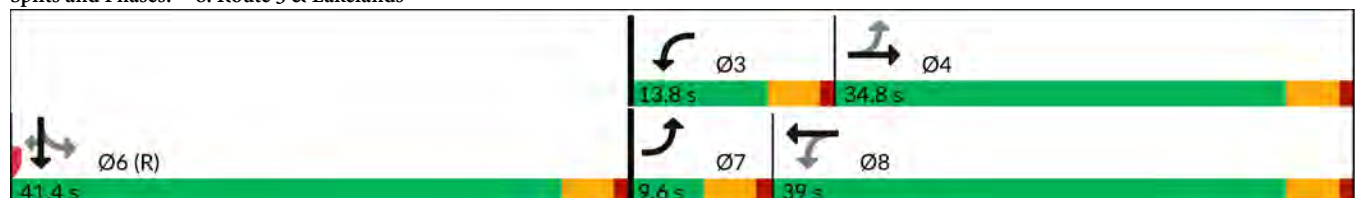
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	357	22	308	588	585	0	0	0	767	290	351
Future Volume (veh/h)	251	414	26	358	683	679	0	0	0	890	337	408
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	273	450	0	389	742	0				667	787	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	719	1196		1019	1362					730	767	
Arrive On Green	0.06	0.34	0.00	0.10	0.38	0.00				0.41	0.41	0.00
Sat Flow, veh/h	3456	3647	0	3456	3647	0				1781	1870	1585
Grp Volume(v), veh/h	273	450	0	389	742	0				667	787	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	0				1781	1870	1585
Q Serve(g_s), s	4.7	8.7	0.0	6.2	14.6	0.0				31.8	36.9	0.0
Cycle Q Clear(g_c), s	4.7	8.7	0.0	6.2	14.6	0.0				31.8	36.9	0.0
Prop In Lane	1.00		0.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	719	1196		1019	1362					730	767	
V/C Ratio(X)	0.38	0.38		0.38	0.54					0.91	1.03	
Avail Cap(c_a), veh/h	719	1196		1019	1362					730	767	
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	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	18.7	22.7	0.0	15.6	21.6	0.0				25.0	26.6	0.0
Incr Delay (d2), s/veh	1.5	0.9	0.0	1.1	1.6	0.0				17.8	39.4	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
%ile BackOfQ(50%),veh/ln	2.2	4.2	0.0	2.9	7.0	0.0				18.3	26.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.2	23.6	0.0	16.7	23.2	0.0				42.9	65.9	0.0
LnGrp LOS	C	C		B	C					D	F	
Approach Vol, veh/h		723			1131						1454	
Approach Delay, s/veh		22.3			21.0						55.3	
Approach LOS		C			C						E	
Timer - Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			13.8	34.8		41.4	9.6	39.0				
Change Period (Y+Rc), s			4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s			9.3	30.3		36.9	5.1	34.5				
Max Q Clear Time (g_c+I1), s			8.2	10.7		38.9	6.7	16.6				
Green Ext Time (p_c), s			0.3	7.0		0.0	0.0	10.5				
Intersection Summary												
HCM 7th Control Delay, s/veh			36.4									
HCM 7th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations	↩	↩	↩	↩
Traffic Volume (vph)	401	162	807	200
Future Volume (vph)	466	188	937	232
Lane Group Flow (vph)	917	204	1018	524
Turn Type	NA	pm+pt	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases		8		
Minimum Split (s)	22.5	9.5	22.5	22.5
Total Split (s)	41.2	11.0	52.2	27.8
Total Split (%)	51.5%	13.8%	65.3%	34.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Act Effct Green (s)	36.7	47.7	47.7	23.3
Actuated g/C Ratio	0.46	0.60	0.60	0.29
v/c Ratio	1.08	0.85	0.91	0.96
Control Delay (s/veh)	77.7	46.7	28.0	55.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.7	46.7	28.0	55.9
LOS	E	D	C	E
Approach Delay (s/veh)	77.7		31.1	55.9
Approach LOS	E		C	E
Queue Length 50th (m)	~152.7	14.9	123.3	69.0
Queue Length 95th (m)	#221.6	#51.0	#215.7	#129.6
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	848	239	1122	547
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.08	0.85	0.91	0.96

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.08

Intersection Signal Delay (s/veh): 52.0 Intersection LOS: D

Intersection Capacity Utilization 85.5% ICU Level of Service E

Analysis Period (min) 15

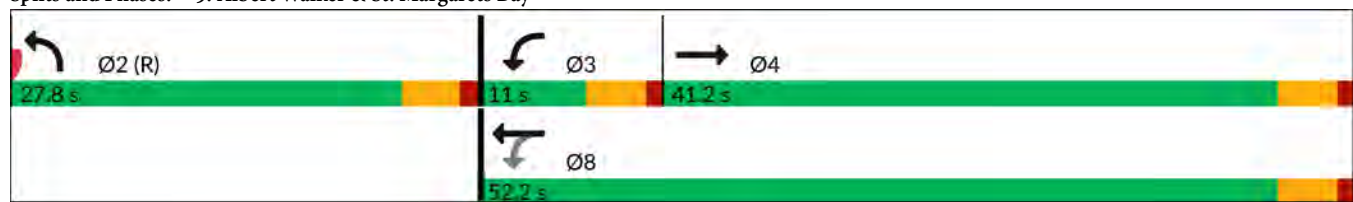
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	401	325	162	807	200	215
Future Volume (veh/h)	466	377	188	937	232	250
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	507	0	204	1018	252	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	858		499	1115	517	
Arrive On Green	0.46	0.00	0.08	0.60	0.29	0.00
Sat Flow, veh/h	1870	0	1781	1870	1775	0
Grp Volume(v), veh/h	507	0	204	1018	253	0
Grp Sat Flow(s),veh/h/ln	1870	0	1781	1870	1782	0
Q Serve(g_s), s	16.1	0.0	4.5	38.6	9.4	0.0
Cycle Q Clear(g_c), s	16.1	0.0	4.5	38.6	9.4	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	858		499	1115	519	
V/C Ratio(X)	0.59		0.41	0.91	0.49	
Avail Cap(c_a), veh/h	858		499	1115	519	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	16.1	0.0	11.1	14.3	23.4	0.0
Incr Delay (d2), s/veh	3.0	0.0	2.5	12.8	3.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	0.0	2.3	21.7	4.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.1	0.0	13.6	27.1	26.7	0.0
LnGrp LOS	B		B	C	C	
Approach Vol, veh/h	507			1222	253	
Approach Delay, s/veh	19.1			24.8	26.7	
Approach LOS	B			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.8	11.0	41.2		52.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		23.3	6.5	36.7		47.7
Max Q Clear Time (g_c+I1), s		11.4	6.5	18.1		40.6
Green Ext Time (p_c), s		1.1	0.0	3.7		4.7
Intersection Summary						
HCM 7th Control Delay, s/veh			23.6			
HCM 7th LOS			C			
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group										
Lane Configurations		↗	↘	↗	↘	↗	↗	↗	↗	↗
Traffic Volume (vph)	130	30	290	7	20	210	935	13	74	1224
Future Volume (vph)	151	35	337	8	23	244	1086	15	86	1421
Lane Group Flow (vph)	0	202	366	9	79	265	1180	16	93	1747
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	22.8	22.8	22.8	22.8	22.8	16.0	56.4	56.4	10.8	51.2
Total Split (%)	25.3%	25.3%	25.3%	25.3%	25.3%	17.8%	62.7%	62.7%	12.0%	56.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Act Effct Green (s)		18.3	18.3	18.3	18.3	62.7	51.9	51.9	53.0	46.7
Actuated g/C Ratio		0.20	0.20	0.20	0.20	0.70	0.58	0.58	0.59	0.52
v/c Ratio		0.74	0.81	0.05	0.20	0.85	0.57	0.02	0.30	0.95
Control Delay (s/veh)		51.7	34.8	29.9	14.6	46.0	13.4	0.0	7.8	33.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)		51.7	34.8	29.9	14.6	46.0	13.4	0.0	7.8	33.6
LOS		D	C	C	B	D	B	A	A	C
Approach Delay (s/veh)		40.8			16.2		19.2			32.3
Approach LOS		D			B		B			C
Queue Length 50th (m)		33.0	34.7	1.3	3.5	29.0	62.8	0.0	4.4	141.6
Queue Length 95th (m)		#64.9	#79.2	5.2	14.8	#70.1	80.4	0.0	8.7	#199.4
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)						150.0		30.0		
Base Capacity (vph)		273	452	181	386	312	2063	954	306	1836
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.74	0.81	0.05	0.20	0.85	0.57	0.02	0.30	0.95

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.95

Intersection Signal Delay (s/veh): 28.3

Intersection LOS: C

Intersection Capacity Utilization 77.3%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	30	290	7	20	43	210	935	13	74	1224	160
Future Volume (veh/h)	151	35	337	8	23	50	244	1086	15	86	1421	186
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	164	38	0	9	25	0	265	1180	0	93	1545	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	317	57		388	380		372	2049		421	1844	
Arrive On Green	0.20	0.20	0.00	0.20	0.20	0.00	0.13	0.58	0.00	0.07	0.52	0.00
Sat Flow, veh/h	1205	279	1585	1495	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	202	0	0	9	25	0	265	1180	0	93	1545	0
Grp Sat Flow(s),veh/h/ln	1484	0	1585	1495	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	10.8	0.0	0.0	0.0	1.0	0.0	5.2	18.9	0.0	2.0	33.3	0.0
Cycle Q Clear(g_c), s	11.7	0.0	0.0	0.4	1.0	0.0	5.2	18.9	0.0	2.0	33.3	0.0
Prop In Lane	0.81		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	374	0		388	380		372	2049		421	1844	
V/C Ratio(X)	0.54	0.00		0.02	0.07		0.71	0.58		0.22	0.84	
Avail Cap(c_a), veh/h	374	0		388	380		372	2049		421	1844	
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	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.7	0.0	0.0	28.7	28.9	0.0	17.3	12.1	0.0	9.3	18.4	0.0
Incr Delay (d2), s/veh	5.5	0.0	0.0	0.1	0.3	0.0	11.0	1.2	0.0	1.2	4.7	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(50%),veh/ln	5.0	0.0	0.0	0.2	0.5	0.0	4.5	8.8	0.0	1.0	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.2	0.0	0.0	28.8	29.3	0.0	28.3	13.3	0.0	10.5	23.2	0.0
LnGrp LOS	D			C	C		C	B		B	C	
Approach Vol, veh/h		202			34			1445			1638	
Approach Delay, s/veh		39.2			29.2			16.0			22.4	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.8	56.4		22.8	16.0	51.2		22.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.3	51.9		18.3	11.5	46.7		18.3				
Max Q Clear Time (g_c+I1), s	4.0	20.9		13.7	7.2	35.3		3.0				
Green Ext Time (p_c), s	0.1	23.4		0.9	0.5	10.8		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			20.7									
HCM 7th LOS			C									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	4.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	425	0	0	869
Future Vol, veh/h	15	188	491	23	291	959
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	50	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	204	454	25	316	886
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1985	466	0	0	479	0
Stage 1	466	-	-	-	-	-
Stage 2	1519	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	67	596	-	-	1084	-
Stage 1	632	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	48	596	-	-	1084	-
Mov Cap-2 Maneuver	48	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Approach	WB		NB		SB	
HCM Ctrl Dly, s/v	21.65		0		2.55	
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	48	596	1084	-
HCM Lane V/C Ratio	-	-	0.342	0.343	0.292	-
HCM Ctrl Dly (s/v)	-	-	115.7	14.1	9.7	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	1.5	1.2	-

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	0	0	0	0	0	0	425	0	0	869	0
Future Volume (vph)	113	225	15	147	155	73	583	23	237	1122	73
Lane Group Flow (vph)	115	345	15	150	158	74	506	23	237	954	73
Turn Type	pm+pt	NA	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		8		5	2		1	6	
Permitted Phases	4		8		8	2		2	6		6
Detector Phase	7	4	8	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	2.0	5.0	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	7.0	22.5	22.0	22.0	22.0	8.0	22.5	22.5	9.5	22.5	22.5
Total Split (s)	7.0	29.0	22.0	22.0	22.0	8.0	47.7	47.7	13.3	53.0	53.0
Total Split (%)	7.8%	32.2%	24.4%	24.4%	24.4%	8.9%	53.0%	53.0%	14.8%	58.9%	58.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	19.2	19.2	14.1	14.1	14.1	39.8	36.0	36.0	49.5	43.6	43.6
Actuated g/C Ratio	0.25	0.25	0.18	0.18	0.18	0.51	0.46	0.46	0.63	0.56	0.56
v/c Ratio	0.48	0.75	0.11	0.44	0.36	0.42	0.58	0.03	0.49	0.91	0.08
Control Delay (s/veh)	34.4	38.0	32.3	36.8	6.3	14.4	18.8	0.0	10.2	31.5	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.4	38.0	32.3	36.8	6.3	14.4	18.8	0.0	10.2	31.5	0.6
LOS	C	D	C	D	A	B	B	A	B	C	A
Approach Delay (s/veh)		37.1		21.6			17.5			25.7	
Approach LOS		D		C			B			C	
Queue Length 50th (m)	15.4	49.1	2.1	22.9	0.0	3.8	53.6	0.0	13.5	128.4	0.0
Queue Length 95th (m)	28.9	78.3	7.5	40.3	11.5	9.3	88.9	0.0	25.9	#232.8	1.5
Internal Link Dist (m)		134.0		99.9			189.2			228.4	
Turn Bay Length (m)			50.0		50.0	80.0		50.0	80.0		50.0
Base Capacity (vph)	239	612	188	447	519	178	1103	1014	492	1229	1089
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.56	0.08	0.34	0.30	0.42	0.46	0.02	0.48	0.78	0.07

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 78.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 25.3

Intersection LOS: C

Intersection Capacity Utilization 42.6%

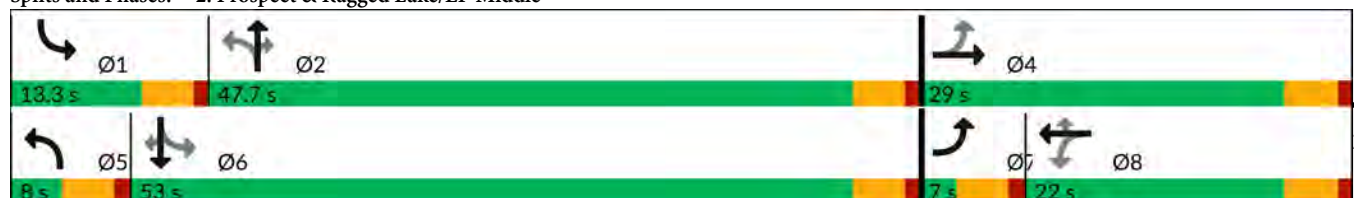
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Prospect & Ragged Lake/EP Middle



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	425	0	0	869	0
Future Volume (veh/h)	113	225	113	15	147	155	73	583	23	237	1122	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	230	115	15	150	158	74	506	23	237	954	73
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	278	139	150	278	236	221	950	805	572	1044	885
Arrive On Green	0.03	0.24	0.24	0.15	0.15	0.15	0.04	0.51	0.51	0.09	0.56	0.56
Sat Flow, veh/h	1781	1176	588	1170	1870	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	115	0	345	15	150	158	74	506	23	237	954	73
Grp Sat Flow(s),veh/h/ln	1781	0	1764	1170	1870	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	2.5	0.0	14.8	1.0	5.9	7.5	1.6	14.6	0.6	4.7	36.7	1.7
Cycle Q Clear(g_c), s	2.5	0.0	14.8	8.8	5.9	7.5	1.6	14.6	0.6	4.7	36.7	1.7
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	236	0	417	150	278	236	221	950	805	572	1044	885
V/C Ratio(X)	0.49	0.00	0.83	0.10	0.54	0.67	0.34	0.53	0.03	0.41	0.91	0.08
Avail Cap(c_a), veh/h	236	0	542	232	410	347	234	1012	858	615	1136	963
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	28.9	36.4	31.4	32.1	16.2	13.2	9.8	9.0	15.9	8.2
Incr Delay (d2), s/veh	1.6	0.0	8.0	0.3	1.6	3.3	0.9	0.5	0.0	0.5	10.7	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(50%),veh/ln	1.2	0.0	7.7	0.3	3.0	3.3	0.8	7.0	0.2	2.1	20.2	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.1	0.0	37.0	36.7	33.1	35.4	17.1	13.7	9.8	9.5	26.6	8.2
LnGrp LOS	C		D	D	C	D	B	B	A	A	C	A
Approach Vol, veh/h		460			323			603			1264	
Approach Delay, s/veh		35.7			34.4			14.0			22.3	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	45.0		23.4	7.4	49.1	7.0	16.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5	4.5	4.5				
Max Green Setting (Gmax), s	8.8	43.2		24.5	3.5	48.5	2.5	17.5				
Max Q Clear Time (g_c+I1), s	6.7	16.6		16.8	3.6	38.7	4.5	10.8				
Green Ext Time (p_c), s	0.2	4.3		1.4	0.0	5.8	0.0	1.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			24.2									
HCM 7th LOS			C									
Notes												
User approved pedestrian interval to be less than phase max green.												

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	65	420	5	64	862
Future Volume (vph)	88	204	722	129	273	1344
Lane Group Flow (vph)	81	188	679	107	252	1242
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Detector Phase	8	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	57.5	57.5	57.5	57.5
Total Split (%)	28.1%	28.1%	71.9%	71.9%	71.9%	71.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effect Green (s)	8.6	8.6	55.6	55.6	55.6	55.6
Actuated g/C Ratio	0.12	0.12	0.76	0.76	0.76	0.76
v/c Ratio	0.38	0.53	0.50	0.09	0.51	0.87
Control Delay (s/veh)	34.0	10.8	5.3	0.9	8.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.0	10.8	5.3	0.9	8.6	16.1
LOS	C	B	A	A	A	B
Approach Delay (s/veh)	17.8		4.7			14.9
Approach LOS	B		A			B
Queue Length 50th (m)	10.0	0.0	28.1	0.0	10.0	89.0
Queue Length 95th (m)	21.7	15.8	56.7	3.3	31.1	#237.1
Internal Link Dist (m)	84.0		228.4			698.0
Turn Bay Length (m)		50.0		50.0	250.0	
Base Capacity (vph)	439	535	1354	1180	490	1429
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.35	0.50	0.09	0.51	0.87

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 73.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 12.0

Intersection LOS: B

Intersection Capacity Utilization 50.2%

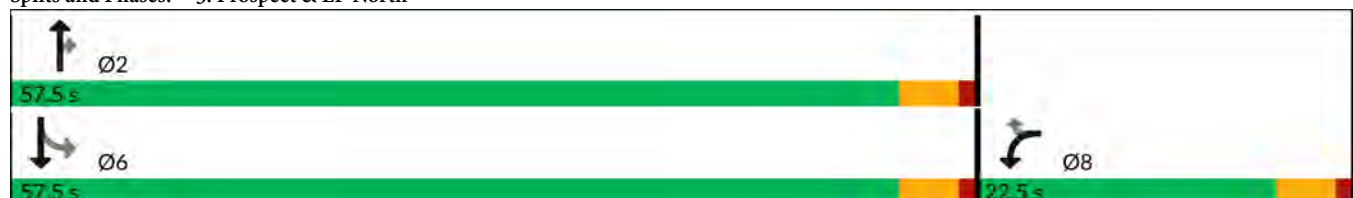
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Prospect & EP North



						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	65	420	5	64	862
Future Volume (veh/h)	88	204	722	129	273	1344
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	188	667	119	252	1242
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	275	244	1345	1139	562	1345
Arrive On Green	0.15	0.15	0.72	0.72	0.72	0.72
Sat Flow, veh/h	1781	1585	1870	1585	818	1870
Grp Volume(v), veh/h	81	188	667	119	252	1242
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	818	1870
Q Serve(g_s), s	2.9	8.1	11.0	1.6	13.8	39.4
Cycle Q Clear(g_c), s	2.9	8.1	11.0	1.6	24.8	39.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	275	244	1345	1139	562	1345
V/C Ratio(X)	0.29	0.77	0.50	0.10	0.45	0.92
Avail Cap(c_a), veh/h	452	402	1398	1185	586	1398
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	26.6	28.8	4.4	3.0	9.8	8.3
Incr Delay (d2), s/veh	0.6	5.1	0.3	0.0	0.6	10.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.7	4.8	0.6	2.9	20.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	27.2	33.8	4.6	3.1	10.3	18.6
LnGrp LOS	C	C	A	A	B	B
Approach Vol, veh/h	269		786			1494
Approach Delay, s/veh	31.8		4.4			17.2
Approach LOS	C		A			B
Timer - Assigned Phs	2		6		8	
Phs Duration (G+Y+Rc), s	55.5		55.5		15.4	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	53.0		53.0		18.0	
Max Q Clear Time (g_c+I1), s	13.0		41.4		10.1	
Green Ext Time (p_c), s	7.8		9.6		0.9	
Intersection Summary						
HCM 7th Control Delay, s/veh			14.8			
HCM 7th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						

2040 Full Development
PM Peak Hour

4: Prospect & Ragged Lake
05/28/2025



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←	→	←	↑	↑	↗
Traffic Volume (vph)	78	7	4	567	852	27
Future Volume (vph)	84	120	78	941	1425	29
Lane Group Flow (vph)	78	111	72	869	1317	27
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.0	20.0	22.5	22.5	22.5	22.5
Total Split (s)	20.0	20.0	60.0	60.0	60.0	60.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Max	Max	Max	Max
Act Effect Green (s)	8.7	8.7	61.4	61.4	61.4	61.4
Actuated g/C Ratio	0.11	0.11	0.81	0.81	0.81	0.81
v/c Ratio	0.38	0.43	0.65	0.57	0.87	0.02
Control Delay (s/veh)	35.8	15.9	41.1	5.8	16.2	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.8	15.9	41.1	5.8	16.2	1.2
LOS	D	B	D	A	B	A
Approach Delay (s/veh)	24.1			8.5	15.9	
Approach LOS	C			A	B	
Queue Length 50th (m)	10.3	3.1	3.7	39.5	107.7	0.0
Queue Length 95th (m)	21.7	16.0	#16.4	79.4	#265.5	1.6
Internal Link Dist (m)	318.4			698.0	426.1	
Turn Bay Length (m)			100.0			80.0
Base Capacity (vph)	364	395	110	1518	1518	1296
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.28	0.65	0.57	0.87	0.02

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 76.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay (s/veh): 13.7

Intersection LOS: B

Intersection Capacity Utilization 49.8%

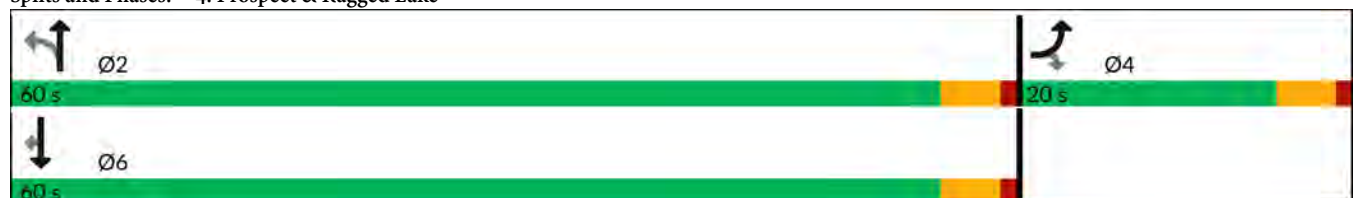
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Prospect & Ragged Lake



						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	78	7	4	567	852	27
Future Volume (veh/h)	84	120	78	941	1425	29
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	111	72	869	1317	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	181	161	220	1446	1446	1225
Arrive On Green	0.10	0.10	0.77	0.77	0.77	0.77
Sat Flow, veh/h	1781	1585	516	1870	1870	1585
Grp Volume(v), veh/h	78	111	72	869	1317	27
Grp Sat Flow(s),veh/h/ln	1781	1585	516	1870	1870	1585
Q Serve(g_s), s	3.0	4.9	8.9	14.1	38.8	0.3
Cycle Q Clear(g_c), s	3.0	4.9	47.7	14.1	38.8	0.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	181	161	220	1446	1446	1225
V/C Ratio(X)	0.43	0.69	0.33	0.60	0.91	0.02
Avail Cap(c_a), veh/h	385	342	220	1446	1446	1225
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	30.3	31.2	24.6	3.5	6.2	1.9
Incr Delay (d2), s/veh	1.6	5.2	3.9	1.9	10.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.2	1.4	6.4	19.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	31.9	36.3	28.5	5.3	16.4	1.9
LnGrp LOS	C	D	C	A	B	A
Approach Vol, veh/h	189			941	1344	
Approach Delay, s/veh	34.5			7.1	16.1	
Approach LOS	C			A	B	
Timer - Assigned Phs	2			4		6
Phs Duration (G+Y+Rc), s	60.0			11.8		60.0
Change Period (Y+Rc), s	4.5			4.5		4.5
Max Green Setting (Gmax), s	55.5			15.5		55.5
Max Q Clear Time (g_c+I1), s	49.7			6.9		40.8
Green Ext Time (p_c), s	4.9			0.6		14.2
Intersection Summary						
HCM 7th Control Delay, s/veh			14.1			
HCM 7th LOS			B			
Notes						
User approved pedestrian interval to be less than phase max green.						

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	10	10	635	860	20
Future Vol, veh/h	22	11	11	1014	1433	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	12	12	937	1324	24
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1828	1336	1348	0	-	0
Stage 1	1336	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	76	187	509	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	74	187	509	-	-	-
Mov Cap-2 Maneuver	74	-	-	-	-	-
Stage 1	239	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	66.57	0.43		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	45	-	93	-	-	
HCM Lane V/C Ratio	0.023	-	0.387	-	-	
HCM Ctrl Dly (s/v)	12.2	0.3	66.6	-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-	

	→	↘	↙	←	↖
Lane Group	EBT	EBR	WBL	WBT	NBL
Lane Configurations	↑	↗	↘	↑↑	↖↖
Traffic Volume (vph)	513	610	259	750	409
Future Volume (vph)	553	882	561	808	606
Lane Group Flow (vph)	564	765	487	824	868
Turn Type	NA	Perm	pm+pt	NA	Prot
Protected Phases	4		3	8	2
Permitted Phases		4	8		
Detector Phase	4	4	3	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	9.5	22.5	22.5
Total Split (s)	35.2	35.2	27.1	62.3	27.7
Total Split (%)	39.1%	39.1%	30.1%	69.2%	30.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Recall Mode	None	None	None	None	Max
Act Effect Green (s)	29.7	29.7	55.7	55.7	23.2
Actuated g/C Ratio	0.34	0.34	0.63	0.63	0.26
v/c Ratio	0.89	0.81	0.93	0.36	0.86
Control Delay (s/veh)	46.0	13.4	49.0	8.2	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.0	13.4	49.0	8.2	35.0
LOS	D	B	D	A	C
Approach Delay (s/veh)	27.3			23.3	35.0
Approach LOS	C			C	C
Queue Length 50th (m)	90.7	18.6	64.3	31.1	60.3
Queue Length 95th (m)	#148.6	73.0	#121.7	41.0	#92.8
Internal Link Dist (m)	253.0			142.2	189.5
Turn Bay Length (m)			100.0		
Base Capacity (vph)	658	959	543	2354	1011
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.80	0.90	0.35	0.86

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay (s/veh): 27.7

Intersection LOS: C

Intersection Capacity Utilization 66.1%

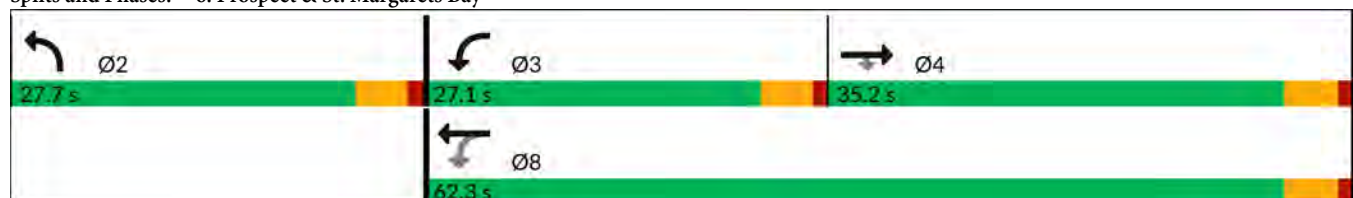
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: Prospect & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	513	610	259	750	409	213
Future Volume (veh/h)	553	882	561	808	606	394
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	564	0	487	824	434	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	640		539	2197	490	
Arrive On Green	0.34	0.00	0.22	0.62	0.28	0.00
Sat Flow, veh/h	1870	1585	1781	3647	1781	1585
Grp Volume(v), veh/h	564	0	487	824	434	0
Grp Sat Flow(s),veh/h/ln	1870	1585	1781	1777	1781	1585
Q Serve(g_s), s	24.0	0.0	15.4	9.7	19.7	0.0
Cycle Q Clear(g_c), s	24.0	0.0	15.4	9.7	19.7	0.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	640		539	2197	490	
V/C Ratio(X)	0.88		0.90	0.38	0.89	
Avail Cap(c_a), veh/h	681		620	2435	490	
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	26.1	0.0	18.8	8.0	29.3	0.0
Incr Delay (d2), s/veh	12.4	0.0	15.3	0.1	20.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.8	0.0	12.6	4.3	11.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	38.5	0.0	34.1	8.1	49.7	0.0
LnGrp LOS	D		C	A	D	
Approach Vol, veh/h	564			1311	434	
Approach Delay, s/veh	38.5			17.8	49.7	
Approach LOS	D			B	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		27.7	23.3	33.4		56.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		23.2	22.6	30.7		57.8
Max Q Clear Time (g_c+I1), s		21.7	17.4	26.0		11.7
Green Ext Time (p_c), s		0.4	1.4	2.9		21.0
Intersection Summary						
HCM 7th Control Delay, s/veh			28.8			
HCM 7th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	576	969	985	349	96	4
Future Volume (vph)	621	1155	1153	449	103	4
Lane Group Flow (vph)	621	982	980	449	103	373
Turn Type	pm+pt	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases	4			8	2	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	34.4	66.8	32.4	32.4	23.2	23.2
Total Split (%)	38.2%	74.2%	36.0%	36.0%	25.8%	25.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Act Effct Green (s)	62.3	62.3	27.9	27.9	18.7	18.7
Actuated g/C Ratio	0.69	0.69	0.31	0.31	0.21	0.21
v/c Ratio	0.92	0.40	0.88	0.56	0.28	0.80
Control Delay (s/veh)	42.0	6.4	40.6	5.4	32.4	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.0	6.4	40.6	5.4	32.4	32.7
LOS	D	A	D	A	C	C
Approach Delay (s/veh)		20.2	29.5			32.6
Approach LOS		C	C			C
Queue Length 50th (m)	84.4	32.6	84.2	0.0	15.1	33.9
Queue Length 95th (m)	#149.7	42.3	#118.6	20.1	29.0	#77.9
Internal Link Dist (m)		292.7	253.0			250.8
Turn Bay Length (m)	150.0			80.0		
Base Capacity (vph)	677	2477	1109	806	371	467
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.40	0.88	0.56	0.28	0.80

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.92

Intersection Signal Delay (s/veh): 25.7

Intersection LOS: C

Intersection Capacity Utilization 81.2%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: Route 3/St. Margarets Bay



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	576	969	0	0	985	349	96	4	237	0	0	0
Future Volume (veh/h)	621	1155	0	0	1153	449	103	4	369	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Ped-Bike Adj(A_pbT)	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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	621	982	0	0	980	0	103	4	369			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	705	2460	0	0	1102		370	4	326			
Arrive On Green	0.33	0.69	0.00	0.00	0.31	0.00	0.21	0.21	0.21			
Sat Flow, veh/h	1781	3647	0	0	3647	1585	1781	17	1571			
Grp Volume(v), veh/h	621	982	0	0	980	0	103	0	373			
Grp Sat Flow(s),veh/h/ln	1781	1777	0	0	1777	1585	1781	0	1588			
Q Serve(g_s), s	23.4	10.6	0.0	0.0	23.6	0.0	4.4	0.0	18.7			
Cycle Q Clear(g_c), s	23.4	10.6	0.0	0.0	23.6	0.0	4.4	0.0	18.7			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	705	2460	0	0	1102		370	0	330			
V/C Ratio(X)	0.88	0.40	0.00	0.00	0.89		0.28	0.00	1.13			
Avail Cap(c_a), veh/h	705	2460	0	0	1102		370	0	330			
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	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.1	5.9	0.0	0.0	29.6	0.0	30.0	0.0	35.7			
Incr Delay (d2), s/veh	14.8	0.5	0.0	0.0	10.8	0.0	1.9	0.0	89.8			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.3	4.7	0.0	0.0	12.6	0.0	2.2	0.0	16.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.0	6.4	0.0	0.0	40.4	0.0	31.8	0.0	125.4			
LnGrp LOS	C	A			D		C		F			
Approach Vol, veh/h		1603			980			476				
Approach Delay, s/veh		17.5			40.4			105.2				
Approach LOS		B			D			F				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		23.2		66.8			34.4	32.4				
Change Period (Y+Rc), s		4.5		4.5			4.5	4.5				
Max Green Setting (Gmax), s		18.7		62.3			29.9	27.9				
Max Q Clear Time (g_c+I1), s		20.7		12.6			25.4	25.6				
Green Ext Time (p_c), s		0.0		26.9			1.7	1.9				
Intersection Summary												
HCM 7th Control Delay, s/veh				38.5								
HCM 7th LOS				D								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

								
Lane Group	EBL	EBT	WBL	WBT	WBR	SBL	SBT	SBR
Lane Configurations								
Traffic Volume (vph)	216	357	308	588	585	767	290	351
Future Volume (vph)	233	412	350	652	685	911	313	378
Lane Group Flow (vph)	245	459	368	686	721	633	655	398
Turn Type	pm+pt	NA	pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases	7	4	3	8			6	
Permitted Phases	4		8		8	6		6
Detector Phase	7	4	3	8	8	6	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	10.0	25.5	15.5	31.0	31.0	49.0	49.0	49.0
Total Split (%)	11.1%	28.3%	17.2%	34.4%	34.4%	54.4%	54.4%	54.4%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			
Recall Mode	None	None	None	None	None	Max	Max	Max
Act Effect Green (s)	25.4	19.9	34.6	24.9	24.9	44.5	44.5	44.5
Actuated g/C Ratio	0.29	0.23	0.39	0.28	0.28	0.50	0.50	0.50
v/c Ratio	0.57	0.57	0.54	0.68	0.74	0.74	0.75	0.43
Control Delay (s/veh)	23.9	33.3	21.2	32.1	7.6	24.3	24.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.9	33.3	21.2	32.1	7.6	24.3	24.4	6.5
LOS	C	C	C	C	A	C	C	A
Approach Delay (s/veh)		30.0		19.9			20.2	
Approach LOS		C		B			C	
Queue Length 50th (m)	13.6	36.3	21.2	54.2	0.0	88.5	92.2	13.0
Queue Length 95th (m)	21.2	51.4	30.9	72.5	29.0	134.6	138.6	31.6
Internal Link Dist (m)		142.2		253.9			186.5	
Turn Bay Length (m)	100.0		100.0		60.0			75.0
Base Capacity (vph)	433	848	703	1073	985	856	879	933
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.54	0.52	0.64	0.73	0.74	0.75	0.43

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.4

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay (s/veh): 21.7

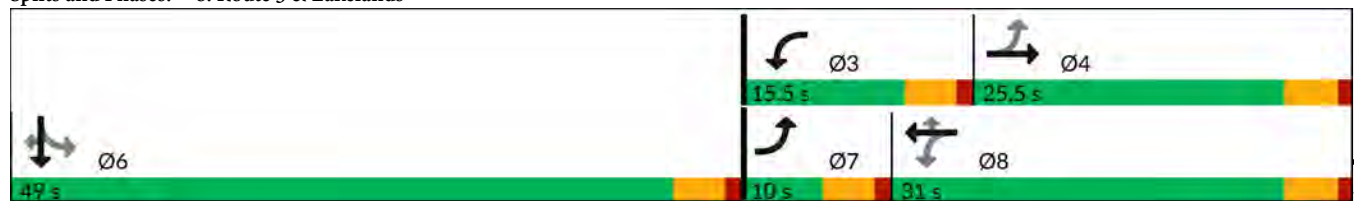
Intersection LOS: C

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Route 3 & Lakelands



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	357	22	308	588	585	0	0	0	767	290	351
Future Volume (veh/h)	233	412	24	350	652	685	0	0	0	911	313	378
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870				1870	1870	1870
Adj Flow Rate, veh/h	245	434	0	368	686	0				644	770	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2				2	2	2
Cap, veh/h	543	794		780	948					915	961	
Arrive On Green	0.06	0.22	0.00	0.11	0.27	0.00				0.51	0.51	0.00
Sat Flow, veh/h	3456	3647	0	3456	3554	1585				1781	1870	1585
Grp Volume(v), veh/h	245	434	0	368	686	0				644	770	0
Grp Sat Flow(s),veh/h/ln	1728	1777	0	1728	1777	1585				1781	1870	1585
Q Serve(g_s), s	4.7	9.4	0.0	6.8	15.2	0.0				23.8	29.5	0.0
Cycle Q Clear(g_c), s	4.7	9.4	0.0	6.8	15.2	0.0				23.8	29.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00				1.00		1.00
Lane Grp Cap(c), veh/h	543	794		780	948					915	961	
V/C Ratio(X)	0.45	0.55		0.47	0.72					0.70	0.80	
Avail Cap(c_a), veh/h	543	862		849	1087					915	961	
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	1.00	1.00	0.00				1.00	1.00	0.00
Uniform Delay (d), s/veh	24.6	29.8	0.0	21.6	28.8	0.0				16.0	17.4	0.0
Incr Delay (d2), s/veh	0.6	0.6	0.0	0.4	2.1	0.0				4.5	7.0	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(50%),veh/ln	2.2	4.4	0.0	3.1	7.3	0.0				11.9	15.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.2	30.4	0.0	22.0	30.9	0.0				20.6	24.4	0.0
LnGrp LOS	C	C		C	C					C	C	
Approach Vol, veh/h		679			1054						1414	
Approach Delay, s/veh		28.5			27.8						22.6	
Approach LOS		C			C						C	
Timer - Assigned Phs			3	4		6	7	8				
Phs Duration (G+Y+Rc), s			13.8	23.8		49.0	10.0	27.6				
Change Period (Y+Rc), s			4.5	4.5		4.5	4.5	4.5				
Max Green Setting (Gmax), s			11.0	21.0		44.5	5.5	26.5				
Max Q Clear Time (g_c+I1), s			8.8	11.4		31.5	6.7	17.2				
Green Ext Time (p_c), s			0.5	4.1		10.8	0.0	5.9				
Intersection Summary												
HCM 7th Control Delay, s/veh			25.6									
HCM 7th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBT	WBL	WBT	NBL
Lane Configurations				
Traffic Volume (vph)	355	162	777	190
Future Volume (vph)	456	175	951	374
Lane Group Flow (vph)	871	175	951	606
Turn Type	NA	pm+pt	NA	Prot
Protected Phases	4	3	8	2
Permitted Phases		8		
Detector Phase	4	3	8	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5
Total Split (s)	46.0	10.8	56.8	35.9
Total Split (%)	49.6%	11.7%	61.3%	38.7%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	None	None	None	C-Max
Act Effect Green (s)	41.5	52.3	52.3	31.4
Actuated g/C Ratio	0.45	0.56	0.56	0.34
v/c Ratio	1.06	0.87	0.90	0.99
Control Delay (s/veh)	72.8	54.7	30.8	65.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	54.7	30.8	65.4
LOS	E	D	C	E
Approach Delay (s/veh)	72.8		34.5	65.4
Approach LOS	E		C	E
Queue Length 50th (m)	~165.4	15.3	139.7	101.7
Queue Length 95th (m)	#236.6	#51.6	#228.2	#171.6
Internal Link Dist (m)	249.1		241.6	278.7
Turn Bay Length (m)		120.0		
Base Capacity (vph)	824	202	1062	610
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.06	0.87	0.90	0.99

Intersection Summary

Cycle Length: 92.7

Actuated Cycle Length: 92.7

Offset: 0 (0%), Referenced to phase 2:NBL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay (s/veh): 54.5

Intersection LOS: D

Intersection Capacity Utilization 81.0%

ICU Level of Service D

Analysis Period (min) 15

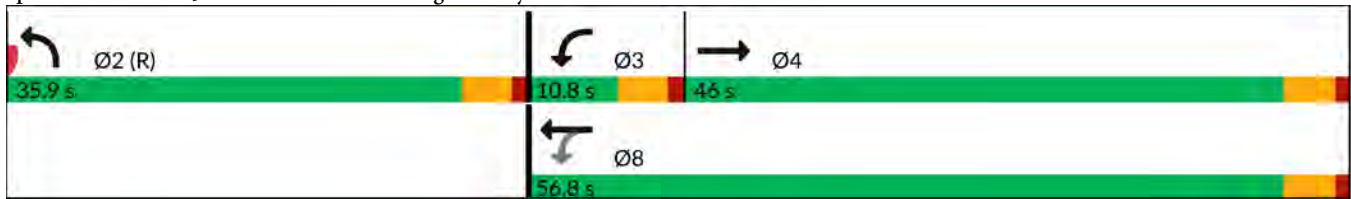
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 9: Albert Walker & St. Margarets Bay



						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	355	300	162	777	190	215
Future Volume (veh/h)	456	415	175	951	374	232
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	456	0	175	951	374	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	791		451	1008	647	
Arrive On Green	0.42	0.00	0.07	0.54	0.36	0.00
Sat Flow, veh/h	1870	0	1781	1870	1777	0
Grp Volume(v), veh/h	456	0	175	951	375	0
Grp Sat Flow(s),veh/h/ln	1870	0	1781	1870	1782	0
Q Serve(g_s), s	17.3	0.0	4.9	44.4	15.8	0.0
Cycle Q Clear(g_c), s	17.3	0.0	4.9	44.4	15.8	0.0
Prop In Lane		0.00	1.00		1.00	0.00
Lane Grp Cap(c), veh/h	791		451	1008	649	
V/C Ratio(X)	0.58		0.39	0.94	0.58	
Avail Cap(c_a), veh/h	835		451	1052	649	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.61	0.00
Uniform Delay (d), s/veh	20.5	0.0	14.7	20.1	23.8	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.5	15.7	2.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	2.3	25.5	7.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.4	0.0	15.2	35.8	26.1	0.0
LnGrp LOS	C		B	D	C	
Approach Vol, veh/h	456			1126	375	
Approach Delay, s/veh	21.4			32.6	26.1	
Approach LOS	C			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		38.4	10.8	43.8		54.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		31.4	6.3	41.5		52.3
Max Q Clear Time (g_c+I1), s		17.8	6.9	19.3		46.4
Green Ext Time (p_c), s		1.9	0.0	3.5		3.8
Intersection Summary						
HCM 7th Control Delay, s/veh			28.7			
HCM 7th LOS			C			
Notes						
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.						

										
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	130	30	290	7	20	210	935	13	74	1224
Future Volume (vph)	213	32	331	8	22	282	1008	14	80	1319
Lane Group Flow (vph)	217	33	338	8	69	288	1029	14	82	1638
Turn Type	Perm	NA	Perm	Perm	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4			8	5	2		1	6
Permitted Phases	4		4	8		2		2	6	
Detector Phase	4	4	4	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	23.0	23.0	23.0	23.0	23.0	17.2	56.7	56.7	10.3	49.8
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	19.1%	63.0%	63.0%	11.4%	55.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Max	Max	None	None
Act Effect Green (s)	16.9	16.9	16.9	16.9	16.9	60.8	52.9	52.9	50.0	44.2
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.70	0.61	0.61	0.58	0.51
v/c Ratio	0.83	0.09	0.73	0.03	0.19	0.86	0.47	0.01	0.22	0.91
Control Delay (s/veh)	61.1	29.8	24.3	29.0	15.0	46.7	11.0	0.0	6.8	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	61.1	29.8	24.3	29.0	15.0	46.7	11.0	0.0	6.8	28.9
LOS	E	C	C	C	B	D	B	A	A	C
Approach Delay (s/veh)		38.2			16.5		18.6			27.9
Approach LOS		D			B		B			C
Queue Length 50th (m)	35.8	4.7	22.5	1.1	3.1	32.8	51.0	0.0	3.9	129.2
Queue Length 95th (m)	#70.9	12.2	52.5	4.7	13.6	#76.0	66.0	0.0	7.9	#183.1
Internal Link Dist (m)		278.7			147.1		277.8			194.9
Turn Bay Length (m)	30.0					150.0		30.0		
Base Capacity (vph)	287	403	493	296	399	347	2179	1003	369	1846
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.08	0.69	0.03	0.17	0.83	0.47	0.01	0.22	0.89

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay (s/veh): 26.0

Intersection LOS: C

Intersection Capacity Utilization 75.7%

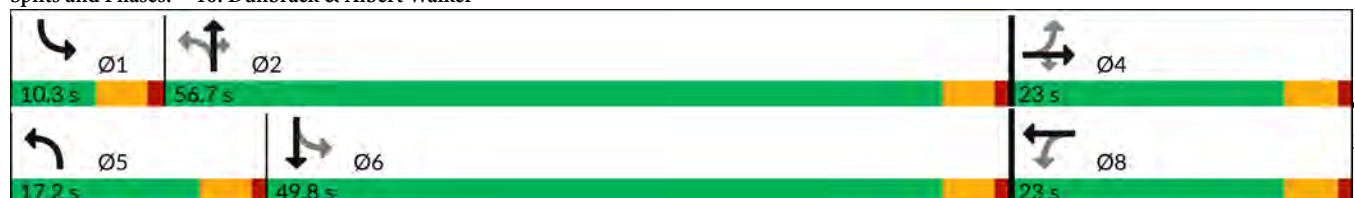
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Dunbrack & Albert Walker



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	30	290	7	20	43	210	935	13	74	1224	160
Future Volume (veh/h)	213	32	331	8	22	46	282	1008	14	80	1319	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	217	33	0	8	22	0	288	1029	0	82	1346	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	340	333		330	333		410	2178		479	2022	
Arrive On Green	0.18	0.18	0.00	0.18	0.18	0.00	0.09	0.61	0.00	0.05	0.57	0.00
Sat Flow, veh/h	1514	1870	1585	1501	1870	0	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	217	33	0	8	22	0	288	1029	0	82	1346	0
Grp Sat Flow(s),veh/h/ln	1514	1870	1585	1501	1870	0	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	11.8	1.3	0.0	0.4	0.8	0.0	5.3	13.4	0.0	1.6	22.4	0.0
Cycle Q Clear(g_c), s	12.7	1.3	0.0	1.6	0.8	0.0	5.3	13.4	0.0	1.6	22.4	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	340	333		330	333		410	2178		479	2022	
V/C Ratio(X)	0.64	0.10		0.02	0.07		0.70	0.47		0.17	0.67	
Avail Cap(c_a), veh/h	399	406		388	406		508	2178		511	2022	
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	34.4	29.3	0.0	30.0	29.1	0.0	12.6	9.0	0.0	7.1	12.7	0.0
Incr Delay (d2), s/veh	2.6	0.1	0.0	0.0	0.1	0.0	3.3	0.7	0.0	0.2	0.8	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(50%),veh/ln	5.0	0.6	0.0	0.2	0.4	0.0	4.0	6.1	0.0	0.7	10.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.0	29.4	0.0	30.0	29.2	0.0	15.9	9.7	0.0	7.3	13.6	0.0
LnGrp LOS	D	C		C	C		B	A		A	B	
Approach Vol, veh/h		250			30			1317			1428	
Approach Delay, s/veh		36.0			29.4			11.1			13.2	
Approach LOS		D			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	56.7		19.7	12.5	53.0		19.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.8	52.2		18.5	12.7	45.3		18.5				
Max Q Clear Time (g_c+I1), s	3.6	15.4		14.7	7.3	24.4		3.6				
Green Ext Time (p_c), s	0.1	23.5		0.5	0.7	18.2		0.1				
Intersection Summary												
HCM 7th Control Delay, s/veh			14.3									
HCM 7th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												