Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	1788	36	0	1893
Future Vol, veh/h	0	22	1788	36	0	1893
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	-	-	-	-
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	24	1943	39	0	2058

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	991	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*565	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		0	-	-		-
Mov Cap-1 Maneuver	-	*565	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.65	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	565	-
HCM Lane V/C Ratio	-	-	0.042	-
HCM Ctrl Dly (s/v)	-	-	11.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	36	148	133	0	0	21
Future Volume (vph)	36	148	133	0	0	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	200	145	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 30.1%		ICU Level of Service A
Analysis Period (min) 15		

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	148	133	0	0	21
Future Vol, veh/h	36	148	133	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	161	145	0	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	145	0	-	0	384	145
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1438	-	-	-	644	903
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %		-	-	-	0	
Mov Cap-1 Maneuver	1438	-	-	-	625	903
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	822	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.48	0	9.09
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	352	-	-	-	903
HCM Lane V/C Ratio	0.027	-	-	-	0.025
HCM Ctrl Dly (s/v)	7.6	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	40	144	37	1	133	0	0	65	3	0	0	29
Future Volume (vph)	40	144	37	1	133	0	0	65	3	0	0	29
Confl. Peds. (#/hr)	2					2	1		1	1		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	50%	2%	3%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	142	0	0	72	0	0	31	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 33.4%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	144	37	1	133	0	0	65	3	0	0	29
Future Vol, veh/h	40	144	37	1	133	0	0	65	3	0	0	29
Conflicting Peds, #/hr	2	0	0	0	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	50	2	3	2	3	2	2	2	2	2	2	2
Mvmt Flow	43	153	39	1	141	0	0	69	3	0	0	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	193	0	0	403	404	174	419	423	144
Stage 1	-	-	-	-	-	-	258	258	-	146	146	-
Stage 2	-	-	-	-	-	-	145	146	-	274	278	-
Critical Hdwy	4.6	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.65	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1192	-	-	1381	-	-	558	536	870	544	522	903
Stage 1	-	-	-	-	-	-	747	694	-	857	776	-
Stage 2	-	-	-	-	-	-	858	776	-	732	681	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1189	-	-	1381	-	-	516	513	869	451	500	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	516	513	-	451	500	-
Stage 1	-	-	-	-	-	-	717	666	-	855	774	-
Stage 2	-	-	-	-	-	-	827	774	-	627	653	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.47	0.06	13	9.14
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	522	313	-	-	13	-	-	900
HCM Lane V/C Ratio	0.139	0.036	-	-	0.001	-	-	0.034
HCM Ctrl Dly (s/v)	13	8.1	0	-	7.6	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.1

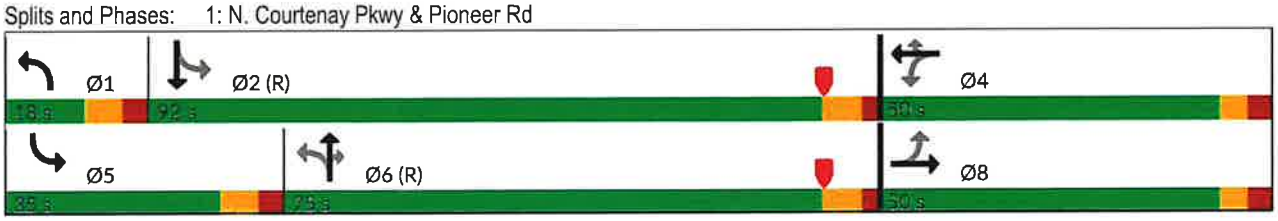
BUILD AM
ALTERNATIVE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	28	30	200	42	171	32	1102	90	221	1582	34
Future Volume (vph)	96	28	30	200	42	171	32	1102	90	221	1582	34
Confl. Peds. (#/hr)									1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	4%	2%	2%	6%	2%	25%	3%	2%	2%	3%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	0	0	266	188	35	1211	99	243	1775	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	8	8		4	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	41.7	41.7		40.7	40.7	40.7	12.8	30.8	30.8	12.8	32.8	
Total Split (s)	50.0	50.0		50.0	50.0	50.0	18.0	75.0	75.0	35.0	92.0	
Total Split (%)	31.3%	31.3%		31.3%	31.3%	31.3%	11.3%	46.9%	46.9%	21.9%	57.5%	
Maximum Green (s)	43.3	43.3		43.3	43.3	43.3	10.2	68.2	68.2	27.2	85.2	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.7			6.7	6.7	7.8	6.8	6.8	7.8	6.8	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	
Flash Don't Walk (s)	28.0	28.0		27.0	27.0	27.0		17.0	17.0		19.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	
Act Effct Green (s)		39.6			39.6	39.6	85.0	78.9	78.9	105.9	94.6	
Actuated g/C Ratio		0.25			0.25	0.25	0.53	0.49	0.49	0.66	0.59	
v/c Ratio		0.93			0.92	0.39	0.36	0.73	0.12	0.76	0.89	
Control Delay (s/veh)		106.0			92.8	17.5	31.3	37.2	1.8	30.6	44.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		106.0			92.8	17.5	31.3	37.2	1.8	30.6	44.4	
LOS		F			F	B	C	D	A	C	D	
Approach Delay (s/veh)		106.0			61.6			34.5			42.7	
Approach LOS		F			E			C			D	
Queue Length 50th (ft)		163			264	45	13	550	0	156	882	
Queue Length 95th (ft)		#307			#423	118	39	691	16	m189	m#1082	
Internal Link Dist (ft)		649			211			778			658	
Turn Bay Length (ft)						125	150		105	245		
Base Capacity (vph)		198			317	510	125	1669	803	388	1996	
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		0.85			0.84	0.37	0.28	0.73	0.12	0.63	0.89	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 135 (84%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay (s/veh): 44.8 Intersection LOS: D
Intersection Capacity Utilization 84.4% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: N. Courtenay Pkwy & Pioneer Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	28	30	200	42	171	32	1102	90	221	1582	34
Future Volume (veh/h)	96	28	30	200	42	171	32	1102	90	221	1582	34
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	1856	1841	1870	1870	1811	1870	1530	1856	1870	1870	1856	1796
Adj Flow Rate, veh/h	105	31	28	220	46	136	35	1211	45	243	1738	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	4	2	2	6	2	25	3	2	2	3	7
Cap, veh/h	256	75	61	282	50	349	206	2016	906	332	2197	45
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.02	0.57	0.57	0.15	1.00	1.00
Sat Flow, veh/h	994	341	275	1095	229	1585	1457	3526	1584	1781	3532	73
Grp Volume(v), veh/h	164	0	0	266	0	136	35	1211	45	243	865	909
Grp Sat Flow(s),veh/h/ln	1610	0	0	1325	0	1585	1457	1763	1584	1781	1763	1842
Q Serve(g_s), s	0.0	0.0	0.0	17.6	0.0	11.7	1.6	35.8	2.0	9.4	0.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0	31.5	0.0	11.7	1.6	35.8	2.0	9.4	0.0	0.0
Prop In Lane	0.64		0.17	0.83		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	391	0	0	333	0	349	206	2016	906	332	1096	1146
V/C Ratio(X)	0.42	0.00	0.00	0.80	0.00	0.39	0.17	0.60	0.05	0.73	0.79	0.79
Avail Cap(c_a), veh/h	464	0	0	402	0	429	263	2016	906	502	1096	1146
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	0.0	0.0	61.2	0.0	53.2	13.4	22.3	15.1	18.3	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	9.7	0.0	0.9	0.4	1.3	0.1	3.1	5.8	5.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	0.0	0.0	17.1	0.0	8.4	1.0	20.9	1.3	6.2	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.9	0.0	0.0	71.0	0.0	54.1	13.7	23.7	15.2	21.4	5.8	5.7
LnGrp LOS	D			E		D	B	C	B	C	A	A
Approach Vol, veh/h		164			402			1291			2017	
Approach Delay, s/veh		54.9			65.2			23.1			7.6	
Approach LOS		D			E			C			A	

Timer - Assigned Phs	1	2	4	5	6	8
Phs Duration (G+Y+Rc), s	11.7	106.3	41.9	19.8	98.3	41.9
Change Period (Y+Rc), s	7.8	6.8	6.7	7.8	6.8	6.7
Max Green Setting (Gmax), s	10.2	85.2	43.3	27.2	68.2	43.3
Max Q Clear Time (g_c+I1), s	3.6	2.0	33.5	11.4	37.8	15.9
Green Ext Time (p_c), s	0.0	29.6	1.7	0.6	12.0	1.1

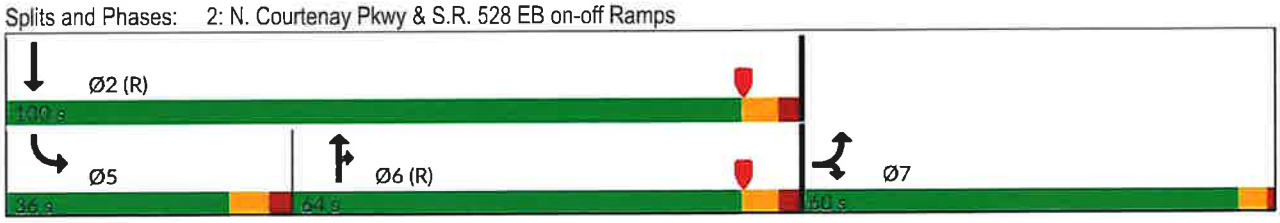
Intersection Summary	
HCM 7th Control Delay, s/veh	20.8
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	857	0	979	0	0	0	0	1167	352	263	1011	0
Future Volume (vph)	857	0	979	0	0	0	0	1167	352	263	1011	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	912	0	1041	0	0	0	0	1241	374	280	1076	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	7		7					6		5	2	
Permitted Phases									6			
Detector Phase	7		7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0		5.0					12.0	12.0	5.0	12.0	
Minimum Split (s)	9.5		9.5					25.4	25.4	25.8	25.4	
Total Split (s)	60.0		60.0					64.0	64.0	36.0	100.0	
Total Split (%)	37.5%		37.5%					40.0%	40.0%	22.5%	62.5%	
Maximum Green (s)	55.5		55.5					56.6	56.6	28.2	92.6	
Yellow Time (s)	3.5		3.5					4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0		1.0					2.6	2.6	3.0	2.6	
Lost Time Adjust (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5					7.4	7.4	7.8	7.4	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					4.0	4.0	4.0	4.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	55.5		55.5					56.6	56.6	28.2	92.6	
Actuated g/C Ratio	0.35		0.35					0.35	0.35	0.18	0.58	
v/c Ratio	0.80		0.97					0.71	0.48	1.01	0.56	
Control Delay (s/veh)	53.4		64.1					61.9	22.6	98.8	15.4	
Queue Delay	3.3		0.0					5.1	0.0	0.0	0.8	
Total Delay (s/veh)	56.7		64.1					67.0	22.6	98.8	16.2	
LOS	E		E					E	C	F	B	
Approach Delay (s/veh)		60.6						56.7			33.2	
Approach LOS		E						E			C	
Queue Length 50th (ft)	444		538					486	176	~305	456	
Queue Length 95th (ft)	529		#706					536	m282	#500	531	
Internal Link Dist (ft)		674			677			1602			365	
Turn Bay Length (ft)	385		385						725			
Base Capacity (vph)	1145		1073					1739	783	277	1911	
Starvation Cap Reductn	0		0					0	0	0	494	
Spillback Cap Reductn	148		0					428	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.91		0.97					0.95	0.48	1.01	0.76	

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160
Offset: 73 (46%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 90

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay (s/veh): 51.8 Intersection LOS: D
Intersection Capacity Utilization 126.0% ICU Level of Service H
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: 2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	857	0	979	0	0	0	0	1167	352	263	1011	0
Future Volume (veh/h)	857	0	979	0	0	0	0	1167	352	263	1011	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	1811	0	1870				0	1870	1870	1796	1870	0
Adj Flow Rate, veh/h	912	0	0				0	1241	0	280	1076	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	0	2				0	2	2	7	2	0
Cap, veh/h	989	0					0	2072		300	2239	0
Arrive On Green	0.30	0.00	0.00				0.00	0.13	0.00	0.06	0.21	0.00
Sat Flow, veh/h	3346	0	2790				0	5274	1585	1711	3647	0
Grp Volume(v), veh/h	912	0	0				0	1241	0	280	1076	0
Grp Sat Flow(s),veh/h/ln	1673	0	1395				0	1702	1585	1711	1777	0
Q Serve(g_s), s	42.2	0.0	0.0				0.0	36.6	0.0	26.1	42.6	0.0
Cycle Q Clear(g_c), s	42.2	0.0	0.0				0.0	36.6	0.0	26.1	42.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	989	0					0	2072		300	2239	0
V/C Ratio(X)	0.92	0.00					0.00	0.60		0.93	0.48	0.00
Avail Cap(c_a), veh/h	1161	0					0	2072		302	2239	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	54.6	0.0	0.0				0.0	57.0	0.0	74.4	40.3	0.0
Incr Delay (d2), s/veh	11.0	0.0	0.0				0.0	1.3	0.0	30.9	0.6	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(95%),veh/ln	26.7	0.0	0.0				0.0	23.8	0.0	20.4	27.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.5	0.0	0.0				0.0	58.3	0.0	105.4	40.9	0.0
LnGrp LOS	E							E		F	D	
Approach Vol, veh/h		912						1241			1356	
Approach Delay, s/veh		65.5						58.3			54.2	
Approach LOS		E						E			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	108.2	51.8	35.9	72.3
Change Period (Y+Rc), s	7.4	4.5	7.8	7.4
Max Green Setting (Gmax), s	92.6	55.5	28.2	56.6
Max Q Clear Time (g_c+I1), s	44.6	44.2	28.1	38.6
Green Ext Time (p_c), s	13.6	3.0	0.0	10.1

Intersection Summary	
HCM 7th Control Delay, s/veh	58.6
HCM 7th LOS	E

Notes

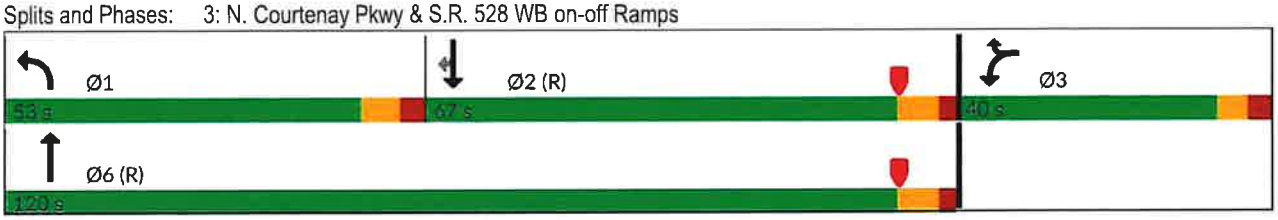
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	239	0	427	556	1593	0	0	1133	514
Future Volume (vph)	0	0	0	239	0	427	556	1593	0	0	1133	514
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	3%	4%	2%	2%	4%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	257	0	459	598	1713	0	0	1218	553
Turn Type				Prot		Perm	Prot	NA			NA	Perm
Protected Phases				3			1	6			2	
Permitted Phases						3						2
Detector Phase				3		3	1	6			2	2
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	22.5	22.5			22.5	22.5
Total Split (s)				40.0		40.0	53.0	120.0			67.0	67.0
Total Split (%)				25.0%		25.0%	33.1%	75.0%			41.9%	41.9%
Maximum Green (s)				33.0		33.0	45.1	112.5			59.5	59.5
Yellow Time (s)				4.0		4.0	4.8	5.3			5.3	5.3
All-Red Time (s)				3.0		3.0	3.1	2.2			2.2	2.2
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				7.0		7.0	7.9	7.5			7.5	7.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			4.0	4.0
Recall Mode				None		None	Min	C-Max			C-Max	C-Max
Act Effct Green (s)				33.0		33.0	33.6	112.5			71.0	71.0
Actuated g/C Ratio				0.21		0.21	0.21	0.70			0.44	0.44
v/c Ratio				0.36		1.20	0.84	0.70			0.55	0.73
Control Delay (s/veh)				56.2		154.3	62.5	36.9			34.5	29.7
Queue Delay				0.0		0.0	0.5	48.5			0.3	0.0
Total Delay (s/veh)				56.2		154.3	63.0	85.4			34.9	29.7
LOS				E		F	E	F			C	C
Approach Delay (s/veh)					119.1			79.6			33.3	
Approach LOS					F			E			C	
Queue Length 50th (ft)				120		~506	293	959			340	312
Queue Length 95th (ft)				165		#735	351	1031			419	510
Internal Link Dist (ft)		690			789			365			641	
Turn Bay Length (ft)				150		275						90
Base Capacity (vph)				708		383	958	2440			2214	757
Starvation Cap Reductn				0		0	97	1088			0	0
Spillback Cap Reductn				0		0	0	0			422	0
Storage Cap Reductn				0		0	0	0			0	0
Reduced v/c Ratio				0.36		1.20	0.69	1.27			0.68	0.73

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160

Offset: 25 (16%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay (s/veh): 68.4 Intersection LOS: E
Intersection Capacity Utilization 126.0% ICU Level of Service H
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: 3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps



3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	239	0	427	556	1593	0	0	1133	514
Future Volume (veh/h)	0	0	0	239	0	427	556	1593	0	0	1133	514
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		0.98
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	0	1841	1856	1841	0	0	1841	1752
Adj Flow Rate, veh/h				257	0	389	598	1713	0	0	1218	423
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	0	4	3	4	0	0	4	10
Cap, veh/h				713	0	322	653	2459	0	0	2327	673
Arrive On Green				0.21	0.00	0.21	0.38	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	1560	3428	3589	0	0	5191	1454
Grp Volume(v), veh/h				257	0	389	598	1713	0	0	1218	423
Grp Sat Flow(s),veh/h/ln				1728	0	1560	1714	1749	0	0	1675	1454
Q Serve(g_s), s				10.2	0.0	33.0	26.5	0.0	0.0	0.0	27.5	35.3
Cycle Q Clear(g_c), s				10.2	0.0	33.0	26.5	0.0	0.0	0.0	27.5	35.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				713	0	322	653	2459	0	0	2327	673
V/C Ratio(X)				0.36	0.00	1.21	0.92	0.70	0.00	0.00	0.52	0.63
Avail Cap(c_a), veh/h				713	0	322	966	2459	0	0	2327	673
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.58	0.58	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.5	0.0	63.5	48.3	0.0	0.0	0.0	30.4	32.5
Incr Delay (d2), s/veh				0.3	0.0	119.5	6.0	1.0	0.0	0.0	0.8	4.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				7.8	0.0	34.5	13.8	0.6	0.0	0.0	16.5	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.8	0.0	183.0	54.3	1.0	0.0	0.0	31.3	36.9
LnGrp LOS				D		F	D	A			C	D
Approach Vol, veh/h					646			2311			1641	
Approach Delay, s/veh					132.0			14.8			32.7	
Approach LOS					F			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	38.4	81.6				120.0		40.0				
Change Period (Y+Rc), s	7.9	7.5				7.5		7.0				
Max Green Setting (Gmax), s	45.1	59.5				112.5		33.0				
Max Q Clear Time (g_c+I1), s	28.5	37.3				2.0		35.0				
Green Ext Time (p_c), s	2.0	13.8				22.9		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	37.6	
HCM 7th LOS	D	

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	35	1343	11	0	1822
Future Volume (vph)	0	35	1343	11	0	1822
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	38	1472	0	0	1980
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↱	↑↑↳			↑↑
Traffic Vol, veh/h	0	35	1343	11	0	1822
Future Vol, veh/h	0	35	1343	11	0	1822
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	-	-	-	-
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	38	1460	12	0	1980

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	736	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*716	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		0	-	-		-
Mov Cap-1 Maneuver	-	*716	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.31	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	716	-
HCM Lane V/C Ratio	-	-	0.053	-
HCM Ctrl Dly (s/v)	-	-	10.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	11	321	379	0	0	34
Future Volume (vph)	11	321	379	0	0	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	361	412	0	37	0
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 35.8%	ICU Level of Service A	
Analysis Period (min) 15		

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↱		⋎	
Traffic Vol, veh/h	11	321	379	0	0	34
Future Vol, veh/h	11	321	379	0	0	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	349	412	0	0	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	412	0	-	0	785	412
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	373	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1147	-	-	-	365	640
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	732	-
Platoon blocked, %		-	-	-	0	
Mov Cap-1 Maneuver	1147	-	-	-	361	640
Mov Cap-2 Maneuver	-	-	-	-	361	-
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	732	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.27	0	10.97
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	60	-	-	-	640
HCM Lane V/C Ratio	0.01	-	-	-	0.058
HCM Ctrl Dly (s/v)	8.2	0	-	-	11
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	15	306	67	13	377	2	41	1	12	2	0	35
Future Volume (vph)	15	306	67	13	377	2	41	1	12	2	0	35
Confl. Peds. (#/hr)	6		3	3		6						
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
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	422	0	0	426	0	0	59	0	0	40	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 43.0%	ICU Level of Service A	
Analysis Period (min) 15		

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	306	67	13	377	2	41	1	12	2	0	35
Future Vol, veh/h	15	306	67	13	377	2	41	1	12	2	0	35
Conflicting Peds, #/hr	6	0	3	3	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	4	2	2	2	2	2	2	2
Mvmt Flow	16	333	73	14	410	2	45	1	13	2	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	418	0	0	408	0	0	843	851	372	811	886	417
Stage 1	-	-	-	-	-	-	405	405	-	445	445	-
Stage 2	-	-	-	-	-	-	438	446	-	366	441	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1141	-	-	1150	-	-	284	297	674	298	283	636
Stage 1	-	-	-	-	-	-	623	599	-	592	575	-
Stage 2	-	-	-	-	-	-	597	574	-	654	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1135	-	-	1147	-	-	257	285	672	280	271	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	285	-	280	271	-
Stage 1	-	-	-	-	-	-	609	586	-	579	562	-
Stage 2	-	-	-	-	-	-	552	561	-	628	564	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.32	0.27	20.01	11.53
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	67	-	-	60	-	-	592
HCM Lane V/C Ratio	0.197	0.014	-	-	0.012	-	-	0.068
HCM Ctrl Dly (s/v)	20	8.2	0	-	8.2	0	-	11.5
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.2

BUILD DS
ALTERNATIVE 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	21	41	149	23	126	52	1561	94	140	1644	36
Future Volume (vph)	133	21	41	149	23	126	52	1561	94	140	1644	36
Confl. Peds. (#/hr)			4	4			2		1	1		2
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	3%	2%	5%	4%	5%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	210	0	0	185	135	56	1678	101	151	1807	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	8	8		4	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	41.7	41.7		40.7	40.7	40.7	12.8	30.8	30.8	12.8	32.8	
Total Split (s)	42.0	42.0		42.0	42.0	42.0	18.0	108.0	108.0	20.0	110.0	
Total Split (%)	24.7%	24.7%		24.7%	24.7%	24.7%	10.6%	63.5%	63.5%	11.8%	64.7%	
Maximum Green (s)	35.3	35.3		35.3	35.3	35.3	10.2	101.2	101.2	12.2	103.2	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.7			6.7	6.7	7.8	6.8	6.8	7.8	6.8	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	
Flash Don't Walk (s)	28.0	28.0		27.0	27.0	27.0		17.0	17.0		19.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	
Act Effct Green (s)		35.3			35.3	35.3	108.5	101.9	101.9	117.2	108.5	
Actuated g/C Ratio		0.21			0.21	0.21	0.64	0.60	0.60	0.69	0.64	
v/c Ratio		1.14			0.76	0.33	0.43	0.82	0.11	0.84	0.83	
Control Delay (s/veh)		164.6			83.5	14.8	23.2	31.2	5.1	68.6	29.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		164.6			83.5	14.8	23.2	31.2	5.1	68.6	29.0	
LOS		F			F	B	C	C	A	E	C	
Approach Delay (s/veh)		164.6			54.5			29.5			32.1	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		~265			196	16	18	756	12	91	811	
Queue Length 95th (ft)		#447			#315	81	46	861	39	#221	972	
Internal Link Dist (ft)		649			211			778			658	
Turn Bay Length (ft)						125	150		105	245		
Base Capacity (vph)		184			244	404	155	2050	925	187	2176	
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		1.14			0.76	0.33	0.36	0.82	0.11	0.81	0.83	

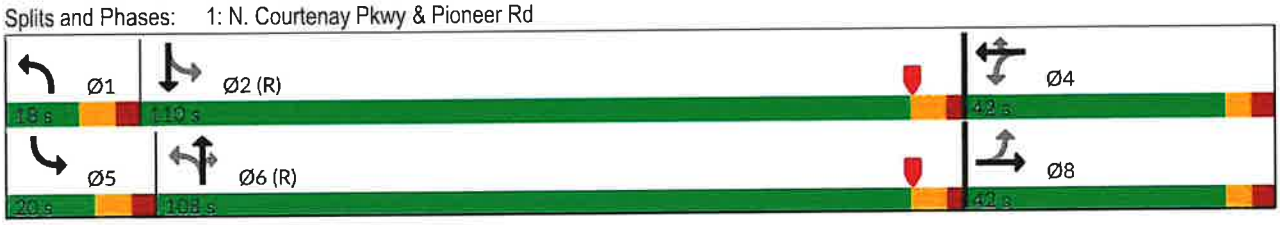
Intersection Summary

Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 105 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay (s/veh): 39.1	Intersection LOS: D
Intersection Capacity Utilization 87.8%	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: 1: N. Courtenay Pkwy & Pioneer Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	21	41	149	23	126	52	1561	94	140	1644	36
Future Volume (veh/h)	133	21	41	149	23	126	52	1561	94	140	1644	36
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		0.99	1.00		0.99	1.00		1.00	1.00		0.98
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	1811	1856	1870	1826	1841	1826	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	23	39	160	25	87	56	1678	71	151	1768	38
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	6	3	2	5	4	5	2	2	2	2	2
Cap, veh/h	216	29	49	226	29	251	261	2388	1063	219	2436	52
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.67	0.67	0.08	1.00	1.00
Sat Flow, veh/h	1111	179	303	1152	180	1548	1739	3554	1583	1781	3555	76
Grp Volume(v), veh/h	205	0	0	185	0	87	56	1678	71	151	881	925
Grp Sat Flow(s),veh/h/ln	1593	0	0	1332	0	1548	1739	1777	1583	1781	1777	1855
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	8.5	1.7	49.9	2.6	4.8	0.0	0.0
Cycle Q Clear(g_c), s	20.5	0.0	0.0	23.1	0.0	8.5	1.7	49.9	2.6	4.8	0.0	0.0
Prop In Lane	0.70		0.19	0.86		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	294	0	0	255	0	251	261	2388	1063	219	1218	1271
V/C Ratio(X)	0.70	0.00	0.00	0.72	0.00	0.35	0.21	0.70	0.07	0.69	0.72	0.73
Avail Cap(c_a), veh/h	358	0	0	317	0	322	317	2388	1063	274	1218	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	0.0	0.0	69.4	0.0	63.2	7.9	17.3	9.6	22.2	0.0	0.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	6.7	0.0	1.0	0.4	1.8	0.1	5.2	3.8	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.9	0.0	0.0	13.1	0.0	6.2	1.2	26.8	1.7	6.2	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	73.3	0.0	0.0	76.1	0.0	64.2	8.4	19.1	9.7	27.4	3.8	3.7
LnGrp LOS	E			E		E	A	B	A	C	A	A
Approach Vol, veh/h		205			272			1805			1957	
Approach Delay, s/veh		73.3			72.3			18.4			5.5	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	123.3		34.3	14.7	121.0		34.3				
Change Period (Y+Rc), s	7.8	6.8		6.7	7.8	6.8		6.7				
Max Green Setting (Gmax), s	10.2	103.2		35.3	12.2	101.2		35.3				
Max Q Clear Time (g_c+I1), s	3.7	2.0		25.1	6.8	51.9		22.5				
Green Ext Time (p_c), s	0.0	32.3		1.1	0.2	23.9		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	18.6	
HCM 7th LOS	B	

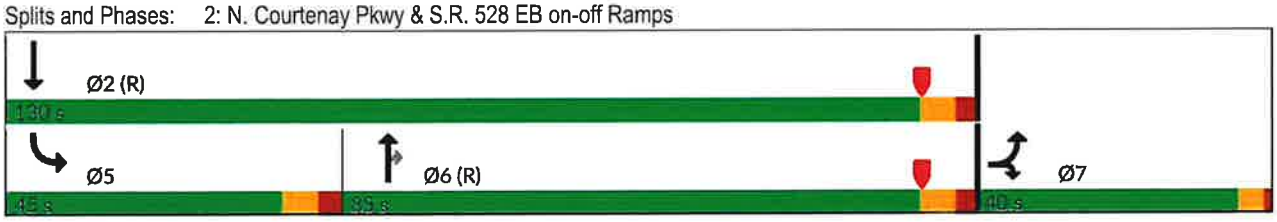
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Prot		Prot						Perm	Prot		
Protected Phases	7		7					6		5	2	
Permitted Phases									6			
Detector Phase	7		7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0		5.0					12.0	12.0	5.0	12.0	
Minimum Split (s)	9.5		9.5					25.4	25.4	25.8	25.4	
Total Split (s)	40.0		40.0					85.0	85.0	45.0	130.0	
Total Split (%)	23.5%		23.5%					50.0%	50.0%	26.5%	76.5%	
Maximum Green (s)	35.5		35.5					77.6	77.6	37.2	122.6	
Yellow Time (s)	3.5		3.5					4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0		1.0					2.6	2.6	3.0	2.6	
Lost Time Adjust (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5					7.4	7.4	7.8	7.4	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					4.0	4.0	4.0	4.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay (s/veh)												
Queue Delay												
Total Delay (s/veh)												
LOS												
Approach Delay (s/veh)												
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		674			677			1602			365	
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

Intersection Summary
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 99 (58%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 65

2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps

Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.00	
Intersection Signal Delay (s/veh): 0.0	Intersection LOS: A
Intersection Capacity Utilization 38.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps



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	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	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	1811	0	1870				0	1870	1870	1796	1870	0
Adj Flow Rate, veh/h	0	0	0				0	0	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	0	2				0	2	2	7	2	0
Cap, veh/h	2	0					0	4884		1	3399	0
Arrive On Green	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3346	0	2790				0	5274	1585	1711	3647	0
Grp Volume(v), veh/h	0	0	0				0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1673	0	1395				0	1702	1585	1711	1777	0
Q Serve(g_s), s	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	0					0	4884		1	3399	0
V/C Ratio(X)	0.00	0.00					0.00	0.00		0.00	0.00	0.00
Avail Cap(c_a), veh/h	699	0					0	4884		374	3399	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h		0						0			0	
Approach Delay, s/veh		0.0						0.0			0.0	
Approach LOS												

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	170.0	0.0	0.0	170.0
Change Period (Y+Rc), s	7.4	4.5	7.8	7.4
Max Green Setting (Gmax), s	122.6	35.5	37.2	77.6
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	0.0
HCM 7th LOS	A

Notes

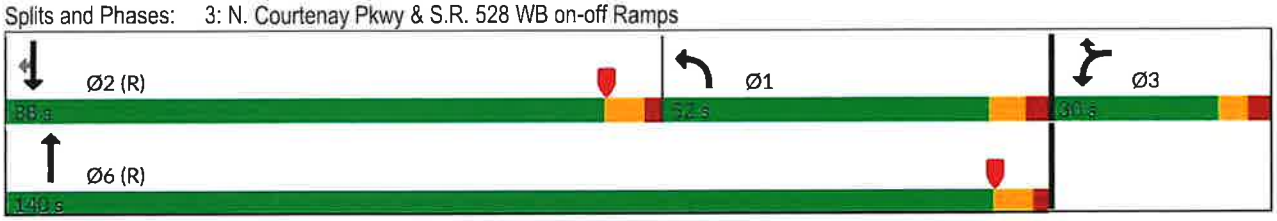
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	3%	4%	2%	2%	4%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type				Prot		Perm	Prot					Perm
Protected Phases				3			1	6			2	
Permitted Phases						3						2
Detector Phase				3		3	1	6			2	2
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	22.5	22.5			22.5	22.5
Total Split (s)				30.0		30.0	52.0	140.0			88.0	88.0
Total Split (%)				17.6%		17.6%	30.6%	82.4%			51.8%	51.8%
Maximum Green (s)				23.0		23.0	44.1	132.5			80.5	80.5
Yellow Time (s)				4.0		4.0	4.8	5.3			5.3	5.3
All-Red Time (s)				3.0		3.0	3.1	2.2			2.2	2.2
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				7.0		7.0	7.9	7.5			7.5	7.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			4.0	4.0
Recall Mode				None		None	Min	C-Max			C-Max	C-Max
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay (s/veh)												
Queue Delay												
Total Delay (s/veh)												
LOS												
Approach Delay (s/veh)												
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		690			789			365			641	
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

Intersection Summary
Cycle Length: 170
Actuated Cycle Length: 170

Offset: 62 (36%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.00
Intersection Signal Delay (s/veh): 0.0 Intersection LOS: A
Intersection Capacity Utilization 38.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps



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	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	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	0	1841	1856	1841	0	0	1841	1752
Adj Flow Rate, veh/h				0	0	0	0	0	0	0	0	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	0	4	3	4	0	0	4	10
Cap, veh/h				2	0	1	1494	3335	0	0	2380	703
Arrive On Green				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				3456	0	1560	3428	3589	0	0	5191	1485
Grp Volume(v), veh/h				0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1728	0	1560	1714	1749	0	0	1675	1485
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				2	0	1	1494	3335	0	0	2380	703
V/C Ratio(X)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				468	0	211	1494	3335	0	0	2380	703
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h					0			0			0	
Approach Delay, s/veh					0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	82.0	88.0			170.0		0.0					
Change Period (Y+Rc), s	7.9	7.5			* 7.9		7.0					
Max Green Setting (Gmax), s	44.1	80.5			* 1.3E+02		23.0					
Max Q Clear Time (g_c+I1), s	0.0	0.0			0.0		0.0					
Green Ext Time (p_c), s	0.0	0.0			0.0		0.0					

Intersection Summary	
HCM 7th Control Delay, s/veh	0.0
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 0.0%		ICU Level of Service A	
Analysis Period (min) 15			

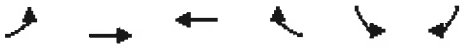
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
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	-	-	-	-
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	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	0	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	-	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	24	148	157	0	0	18
Future Volume (vph)	24	148	157	0	0	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	187	171	0	20	0
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 30.7%	ICU Level of Service A	
Analysis Period (min) 15		

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	148	157	0	0	18
Future Vol, veh/h	24	148	157	0	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	161	171	0	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	171	0	-	0	384	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1407	-	-	-	644	873
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %		-	-	-	0	
Mov Cap-1 Maneuver	1407	-	-	-	631	873
Mov Cap-2 Maneuver	-	-	-	-	631	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.06	0	9.22
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	251	-	-	-	873
HCM Lane V/C Ratio	0.019	-	-	-	0.022
HCM Ctrl Dly (s/v)	7.6	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	138	37	3	155	1	64	0	8	2	0	27
Future Volume (vph)	27	138	37	3	155	1	64	0	8	2	0	27
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	4%	100%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	224	0	0	176	0	0	80	0	0	32	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 40.1%	ICU Level of Service A
Analysis Period (min) 15	

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	138	37	3	155	1	64	0	8	2	0	27
Future Vol, veh/h	27	138	37	3	155	1	64	0	8	2	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	4	100	2	2	2	2	2	2
Mvmt Flow	30	153	41	3	172	1	71	0	9	2	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	173	0	0	194	0	0	413	414	174	393	434	173
Stage 1	-	-	-	-	-	-	234	234	-	179	179	-
Stage 2	-	-	-	-	-	-	179	180	-	213	254	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1403	-	-	1379	-	-	550	529	870	567	515	871
Stage 1	-	-	-	-	-	-	769	711	-	822	751	-
Stage 2	-	-	-	-	-	-	823	750	-	789	697	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1403	-	-	1379	-	-	517	515	870	546	501	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	517	515	-	546	501	-
Stage 1	-	-	-	-	-	-	751	694	-	820	749	-
Stage 2	-	-	-	-	-	-	792	748	-	762	680	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.02	0.14	12.81	9.48
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	231	-	-	34	-	-	836
HCM Lane V/C Ratio	0.148	0.021	-	-	0.002	-	-	0.039
HCM Ctrl Dly (s/v)	12.8	7.6	0	-	7.6	0	-	9.5
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.1

BUILD PM
ALTERNATIVE 1

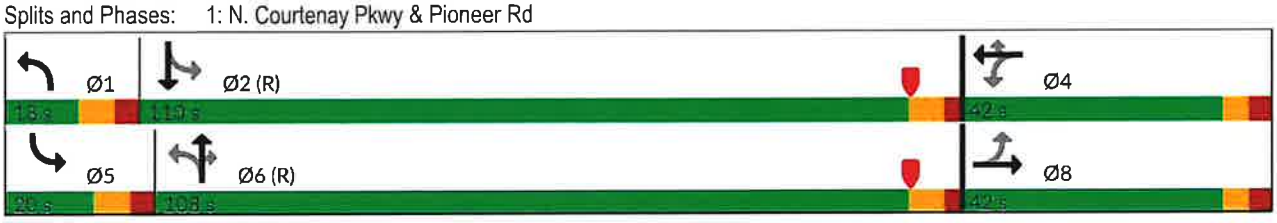
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	22	33	136	21	116	43	1580	124	161	1688	36
Future Volume (vph)	122	22	33	136	21	116	43	1580	124	161	1688	36
Confl. Peds. (#/hr)	2					2	2		3	3		2
Confl. Bikes (#/hr)												2
Peak Hour 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
Heavy Vehicles (%)	6%	2%	4%	2%	2%	6%	11%	2%	2%	2%	2%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	160	118	44	1612	127	164	1759	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	8	8		4	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	41.7	41.7		40.7	40.7	40.7	12.8	30.8	30.8	12.8	32.8	
Total Split (s)	42.0	42.0		42.0	42.0	42.0	18.0	108.0	108.0	20.0	110.0	
Total Split (%)	24.7%	24.7%		24.7%	24.7%	24.7%	10.6%	63.5%	63.5%	11.8%	64.7%	
Maximum Green (s)	35.3	35.3		35.3	35.3	35.3	10.2	101.2	101.2	12.2	103.2	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.7			6.7	6.7	7.8	6.8	6.8	7.8	6.8	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	
Flash Don't Walk (s)	28.0	28.0		27.0	27.0	27.0		17.0	17.0		19.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	
Act Effct Green (s)		33.9			33.9	33.9	109.3	103.3	103.3	119.2	110.5	
Actuated g/C Ratio		0.20			0.20	0.20	0.64	0.61	0.61	0.70	0.65	
v/c Ratio		0.96			0.67	0.31	0.34	0.78	0.14	0.83	0.79	
Control Delay (s/veh)		118.2			77.3	10.6	15.6	28.6	6.8	57.9	14.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		118.2			77.3	10.6	15.6	28.6	6.8	57.9	14.3	
LOS		F			E	B	B	C	A	E	B	
Approach Delay (s/veh)		118.2			49.0			26.7			18.0	
Approach LOS		F			D			C			B	
Queue Length 50th (ft)		193			165	0	14	700	24	79	877	
Queue Length 95th (ft)		#356			254	58	27	797	56	m125	m653	
Internal Link Dist (ft)		649			211			778			658	
Turn Bay Length (ft)						125	150		105	245		
Base Capacity (vph)		196			249	394	159	2078	930	204	2214	
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		0.92			0.64	0.30	0.28	0.78	0.14	0.80	0.79	

Intersection Summary

Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 105 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 28.1	Intersection LOS: C
Intersection Capacity Utilization 86.9%	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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: N. Courtenay Pkwy & Pioneer Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	22	33	136	21	116	43	1580	124	161	1688	36
Future Volume (veh/h)	122	22	33	136	21	116	43	1580	124	161	1688	36
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		0.98
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	1811	1870	1841	1870	1870	1811	1737	1870	1870	1870	1870	1856
Adj Flow Rate, veh/h	124	22	29	139	21	72	44	1612	98	164	1722	36
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, %	6	2	4	2	2	6	11	2	2	2	2	3
Cap, veh/h	197	28	38	205	25	210	261	2473	1101	242	2531	53
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.03	0.70	0.70	0.08	1.00	1.00
Sat Flow, veh/h	1167	207	273	1203	182	1528	1654	3554	1582	1781	3558	74
Grp Volume(v), veh/h	175	0	0	160	0	72	44	1612	98	164	858	900
Grp Sat Flow(s),veh/h/ln	1647	0	0	1385	0	1528	1654	1777	1582	1781	1777	1855
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	7.2	1.3	42.9	3.4	4.8	0.0	0.0
Cycle Q Clear(g_c), s	17.0	0.0	0.0	19.2	0.0	7.2	1.3	42.9	3.4	4.8	0.0	0.0
Prop In Lane	0.71		0.17	0.87		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	263	0	0	230	0	210	261	2473	1101	242	1264	1320
V/C Ratio(X)	0.67	0.00	0.00	0.70	0.00	0.34	0.17	0.65	0.09	0.68	0.68	0.68
Avail Cap(c_a), veh/h	365	0	0	328	0	317	318	2473	1101	297	1264	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	0.0	0.0	71.5	0.0	66.3	6.8	14.4	8.4	17.7	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0	4.5	0.0	1.2	0.3	1.4	0.2	4.5	2.9	2.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.2	0.0	0.0	11.5	0.0	5.3	0.8	23.0	2.1	5.8	1.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	74.0	0.0	0.0	76.0	0.0	67.5	7.1	15.7	8.5	22.2	2.9	2.9
LnGrp LOS	E			E		E	A	B	A	C	A	A
Approach Vol, veh/h		175			232			1754			1922	
Approach Delay, s/veh		74.0			73.4			15.1			4.6	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	127.7		30.1	14.8	125.1		30.1				
Change Period (Y+Rc), s	7.8	6.8		6.7	7.8	6.8		6.7				
Max Green Setting (Gmax), s	10.2	103.2		35.3	12.2	101.2		35.3				
Max Q Clear Time (g_c+I1), s	3.3	2.0		21.2	6.8	44.9		19.0				
Green Ext Time (p_c), s	0.0	30.0		1.1	0.2	23.9		1.0				

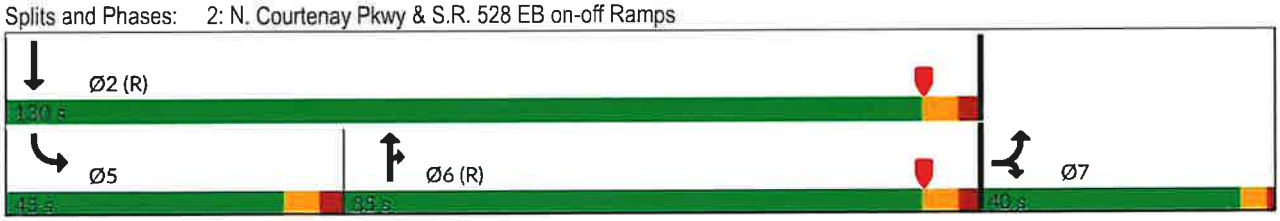
Intersection Summary												
HCM 7th Control Delay, s/veh			16.0									
HCM 7th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	472	0	812	0	0	0	0	1428	315	396	1318	0
Future Volume (vph)	472	0	812	0	0	0	0	1428	315	396	1318	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	487	0	837	0	0	0	0	1472	325	408	1359	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	7		7					6		5	2	
Permitted Phases									6			
Detector Phase	7		7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0		5.0					12.0	12.0	5.0	12.0	
Minimum Split (s)	9.5		9.5					25.4	25.4	25.8	25.4	
Total Split (s)	40.0		40.0					85.0	85.0	45.0	130.0	
Total Split (%)	23.5%		23.5%					50.0%	50.0%	26.5%	76.5%	
Maximum Green (s)	35.5		35.5					77.6	77.6	37.2	122.6	
Yellow Time (s)	3.5		3.5					4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0		1.0					2.6	2.6	3.0	2.6	
Lost Time Adjust (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5					7.4	7.4	7.8	7.4	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					4.0	4.0	4.0	4.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	35.5		35.5					77.6	77.6	37.2	122.6	
Actuated g/C Ratio	0.21		0.21					0.46	0.46	0.22	0.72	
v/c Ratio	0.69		1.19					0.66	0.37	1.13	0.57	
Control Delay (s/veh)	67.8		142.4					27.5	3.6	130.7	6.7	
Queue Delay	0.0		0.0					0.9	0.0	0.6	0.6	
Total Delay (s/veh)	67.8		142.4					28.4	3.6	131.4	7.3	
LOS	E		F					C	A	F	A	
Approach Delay (s/veh)		114.9						23.9			36.0	
Approach LOS		F						C			D	
Queue Length 50th (ft)	261		~552					230	0	~508	172	
Queue Length 95th (ft)	327		#702					307	m59	m#723	186	
Internal Link Dist (ft)		674			677			1602			365	
Turn Bay Length (ft)	385		385						725			
Base Capacity (vph)	710		706					2244	875	361	2382	
Starvation Cap Reductn	0		0					0	0	21	589	
Spillback Cap Reductn	0		0					451	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.69		1.19					0.82	0.37	1.20	0.76	

Intersection Summary
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 99 (58%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 110

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.19
Intersection Signal Delay (s/veh): 52.9 Intersection LOS: D
Intersection Capacity Utilization 121.4% ICU Level of Service H
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: 2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	0	812	0	0	0	0	1428	315	396	1318	0
Future Volume (veh/h)	472	0	812	0	0	0	0	1428	315	396	1318	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	1856	0	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	487	0	0				0	1472	0	408	1359	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	0	2				0	2	2	2	2	0
Cap, veh/h	545	0					0	2585		390	2740	0
Arrive On Green	0.16	0.00	0.00				0.00	1.00	0.00	0.44	1.00	0.00
Sat Flow, veh/h	3428	0	2790				0	5274	1585	1781	3647	0
Grp Volume(v), veh/h	487	0	0				0	1472	0	408	1359	0
Grp Sat Flow(s),veh/h/ln	1714	0	1395				0	1702	1585	1781	1777	0
Q Serve(g_s), s	23.7	0.0	0.0				0.0	0.0	0.0	37.2	0.0	0.0
Cycle Q Clear(g_c), s	23.7	0.0	0.0				0.0	0.0	0.0	37.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	545	0					0	2585		390	2740	0
V/C Ratio(X)	0.89	0.00					0.00	0.57		1.05	0.50	0.00
Avail Cap(c_a), veh/h	716	0					0	2585		390	2740	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.67	0.67	0.00
Uniform Delay (d), s/veh	70.1	0.0	0.0				0.0	0.0	0.0	47.8	0.0	0.0
Incr Delay (d2), s/veh	11.2	0.0	0.0				0.0	0.9	0.0	50.1	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.9	0.0	0.0				0.0	0.4	0.0	25.4	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.3	0.0	0.0				0.0	0.9	0.0	97.9	0.4	0.0
LnGrp LOS	F							A		F	A	
Approach Vol, veh/h		487						1472			1767	
Approach Delay, s/veh		81.3						0.9			22.9	
Approach LOS		F						A			C	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	138.5	31.5	45.0	93.5
Change Period (Y+Rc), s	7.4	4.5	7.8	7.4
Max Green Setting (Gmax), s	122.6	35.5	37.2	77.6
Max Q Clear Time (g_c+I1), s	2.0	25.7	39.2	2.0
Green Ext Time (p_c), s	23.3	1.4	0.0	23.8

Intersection Summary	
HCM 7th Control Delay, s/veh	21.9
HCM 7th LOS	C

Notes

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

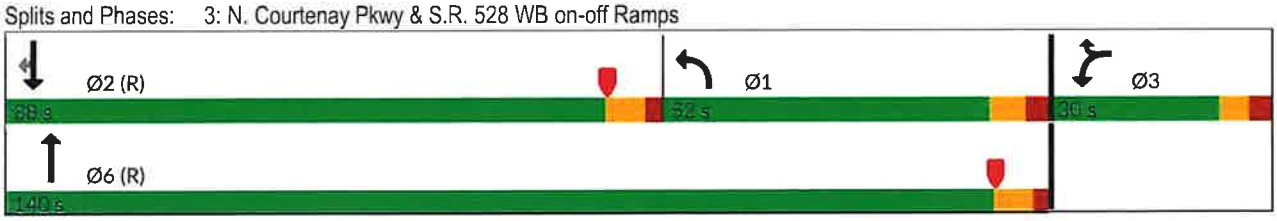
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	374	0	324	767	1189	0	0	1464	1134
Future Volume (vph)	0	0	0	374	0	324	767	1189	0	0	1464	1134
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	3%	3%	2%	2%	2%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	394	0	341	807	1252	0	0	1541	1194
Turn Type				Prot		Perm	Prot	NA			NA	Perm
Protected Phases				3			1	6			2	
Permitted Phases						3						2
Detector Phase				3		3	1	6			2	2
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	22.5	22.5			22.5	22.5
Total Split (s)				30.0		30.0	52.0	140.0			88.0	88.0
Total Split (%)				17.6%		17.6%	30.6%	82.4%			51.8%	51.8%
Maximum Green (s)				23.0		23.0	44.1	132.5			80.5	80.5
Yellow Time (s)				4.0		4.0	4.8	5.3			5.3	5.3
All-Red Time (s)				3.0		3.0	3.1	2.2			2.2	2.2
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				7.0		7.0	7.9	7.5			7.5	7.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			4.0	4.0
Recall Mode				None		None	Min	C-Max			C-Max	C-Max
Act Effct Green (s)				23.0		23.0	44.1	132.5			80.5	80.5
Actuated g/C Ratio				0.14		0.14	0.26	0.78			0.47	0.47
v/c Ratio				0.85		1.06	0.91	0.46			0.64	1.26
Control Delay (s/veh)				89.0		106.4	67.3	8.1			35.3	154.2
Queue Delay				2.8		0.0	46.8	0.3			0.1	0.0
Total Delay (s/veh)				91.8		106.4	114.1	8.4			35.4	154.2
LOS				F		F	F	A			D	F
Approach Delay (s/veh)					98.6			49.8			87.3	
Approach LOS					F			D			F	
Queue Length 50th (ft)				224		~280	475	187			469	~1433
Queue Length 95th (ft)				#306		#495	#581	206			520	#1703
Internal Link Dist (ft)		690			789			365			641	
Turn Bay Length (ft)				150		275						90
Base Capacity (vph)				464		323	882	2731			2407	944
Starvation Cap Reductn				0		0	206	719			0	0
Spillback Cap Reductn				24		0	0	0			134	0
Storage Cap Reductn				0		0	0	0			0	0
Reduced v/c Ratio				0.90		1.06	1.19	0.62			0.68	1.26

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 62 (36%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 150

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay (s/veh): 74.8 Intersection LOS: E
Intersection Capacity Utilization 121.4% ICU Level of Service H
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: 3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	374	0	324	767	1189	0	0	1464	1134
Future Volume (veh/h)	0	0	0	374	0	324	767	1189	0	0	1464	1134
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	0	1841	1856	1856	0	0	1870	1856
Adj Flow Rate, veh/h				394	0	225	807	1252	0	0	1541	994
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	0	4	3	3	0	0	2	3
Cap, veh/h				468	0	211	1164	3022	0	0	2418	745
Arrive On Green				0.14	0.00	0.14	0.68	1.00	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3456	0	1560	3428	3618	0	0	5274	1572
Grp Volume(v), veh/h				394	0	225	807	1252	0	0	1541	994
Grp Sat Flow(s),veh/h/ln				1728	0	1560	1714	1763	0	0	1702	1572
Q Serve(g_s), s				18.9	0.0	23.0	24.3	0.0	0.0	0.0	38.7	59.0
Cycle Q Clear(g_c), s				18.9	0.0	23.0	24.3	0.0	0.0	0.0	38.7	59.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				468	0	211	1164	3022	0	0	2418	745
V/C Ratio(X)				0.84	0.00	1.07	0.69	0.41	0.00	0.00	0.64	1.33
Avail Cap(c_a), veh/h				468	0	211	1164	3022	0	0	2418	745
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.70	0.70	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				71.7	0.0	73.5	21.9	0.0	0.0	0.0	33.7	24.0
Incr Delay (d2), s/veh				13.1	0.0	80.5	1.3	0.3	0.0	0.0	1.3	159.8
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(95%),veh/ln				14.0	0.0	20.4	9.8	0.2	0.0	0.0	22.5	78.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				84.8	0.0	154.0	23.2	0.3	0.0	0.0	35.0	183.8
LnGrp LOS				F		F	C	A			D	F
Approach Vol, veh/h					619			2059			2535	
Approach Delay, s/veh					110.0			9.3			93.4	
Approach LOS					F			A			F	

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	66.0	88.0			154.0		30.0					
Change Period (Y+Rc), s	7.9	7.5			* 7.9		7.0					
Max Green Setting (Gmax), s	44.1	80.5			* 1.3E+02		23.0					
Max Q Clear Time (g_c+I1), s	26.3	61.0			2.0		25.0					
Green Ext Time (p_c), s	2.9	17.1			11.9		0.0					

Intersection Summary	
HCM 7th Control Delay, s/veh	62.1
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	22	1788	36	0	1893
Future Volume (vph)	0	22	1788	36	0	1893
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	24	1982	0	0	2058
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 60.6%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

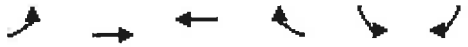
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	22	1788	36	0	1893
Future Vol, veh/h	0	22	1788	36	0	1893
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	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	24	1943	39	0	2058

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	991	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	*565	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		0	-	-		-
Mov Cap-1 Maneuver	-	*565	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.65	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	565	-
HCM Lane V/C Ratio	-	-	0.042	-
HCM Ctrl Dly (s/v)	-	-	11.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

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



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	36	148	133	0	0	21
Future Volume (vph)	36	148	133	0	0	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	200	145	0	23	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 30.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	36	148	133	0	0	21
Future Vol, veh/h	36	148	133	0	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	161	145	0	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	145	0	-	0	384	145
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1438	-	-	-	644	903
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %		-	-	-	0	
Mov Cap-1 Maneuver	1438	-	-	-	625	903
Mov Cap-2 Maneuver	-	-	-	-	625	-
Stage 1	-	-	-	-	856	-
Stage 2	-	-	-	-	822	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1.48	0	9.09
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	352	-	-	-	903
HCM Lane V/C Ratio	0.027	-	-	-	0.025
HCM Ctrl Dly (s/v)	7.6	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	40	144	37	1	133	0	0	65	3	0	0	29
Future Volume (vph)	40	144	37	1	133	0	0	65	3	0	0	29
Confl. Peds. (#/hr)	2					2	1		1	1		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	50%	2%	3%	2%	3%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	235	0	0	142	0	0	72	0	0	31	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 33.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	144	37	1	133	0	0	65	3	0	0	29
Future Vol, veh/h	40	144	37	1	133	0	0	65	3	0	0	29
Conflicting Peds, #/hr	2	0	0	0	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	50	2	3	2	3	2	2	2	2	2	2	2
Mvmt Flow	43	153	39	1	141	0	0	69	3	0	0	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	193	0	0	403	404	174	419	423	144
Stage 1	-	-	-	-	-	-	258	258	-	146	146	-
Stage 2	-	-	-	-	-	-	145	146	-	274	278	-
Critical Hdwy	4.6	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.65	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1192	-	-	1381	-	-	558	536	870	544	522	903
Stage 1	-	-	-	-	-	-	747	694	-	857	776	-
Stage 2	-	-	-	-	-	-	858	776	-	732	681	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1189	-	-	1381	-	-	516	513	869	451	500	900
Mov Cap-2 Maneuver	-	-	-	-	-	-	516	513	-	451	500	-
Stage 1	-	-	-	-	-	-	717	666	-	855	774	-
Stage 2	-	-	-	-	-	-	827	774	-	627	653	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.47	0.06	13	9.14
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	522	313	-	-	13	-	-	900
HCM Lane V/C Ratio	0.139	0.036	-	-	0.001	-	-	0.034
HCM Ctrl Dly (s/v)	13	8.1	0	-	7.6	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0	-	-	0.1

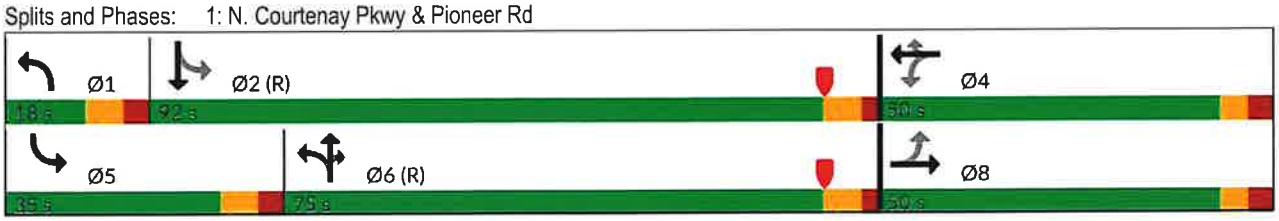
BUILD AM
ALTERNATIVE 2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	28	30	200	42	171	32	1102	90	209	1582	34
Future Volume (vph)	96	28	30	200	42	171	32	1102	90	209	1582	34
Confl. Peds. (#/hr)									1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	4%	2%	2%	6%	2%	25%	3%	2%	2%	3%	7%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	169	0	0	266	188	35	1211	99	230	1775	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	8	8		4	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	41.7	41.7		40.7	40.7	40.7	12.8	30.8	30.8	12.8	32.8	
Total Split (s)	50.0	50.0		50.0	50.0	50.0	18.0	75.0	75.0	35.0	92.0	
Total Split (%)	31.3%	31.3%		31.3%	31.3%	31.3%	11.3%	46.9%	46.9%	21.9%	57.5%	
Maximum Green (s)	43.3	43.3		43.3	43.3	43.3	10.2	68.2	68.2	27.2	85.2	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.7			6.7	6.7	7.8	6.8	6.8	7.8	6.8	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	
Flash Don't Walk (s)	28.0	28.0		27.0	27.0	27.0		17.0	17.0		19.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	
Act Effct Green (s)		39.6			39.6	39.6	85.9	79.8	79.8	105.9	94.6	
Actuated g/C Ratio		0.25			0.25	0.25	0.54	0.50	0.50	0.66	0.59	
v/c Ratio		0.93			0.92	0.39	0.36	0.72	0.12	0.73	0.89	
Control Delay (s/veh)		106.0			92.8	17.5	31.6	36.3	1.8	28.6	44.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		106.0			92.8	17.5	31.6	36.3	1.8	28.6	44.4	
LOS		F			F	B	C	D	A	C	D	
Approach Delay (s/veh)		106.0			61.6			33.7			42.6	
Approach LOS		F			E			C			D	
Queue Length 50th (ft)		163			264	45	13	541	0	142	882	
Queue Length 95th (ft)		#307			#423	118	42	691	16	m174	m#1080	
Internal Link Dist (ft)		649			211			778			658	
Turn Bay Length (ft)						125	150		105	245		
Base Capacity (vph)		198			317	510	124	1690	811	390	1996	
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		0.85			0.84	0.37	0.28	0.72	0.12	0.59	0.89	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 135 (84%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay (s/veh): 44.5 Intersection LOS: D
Intersection Capacity Utilization 84.4% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: N. Courtenay Pkwy & Pioneer Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	28	30	200	42	171	32	1102	90	209	1582	34
Future Volume (veh/h)	96	28	30	200	42	171	32	1102	90	209	1582	34
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	1856	1841	1870	1870	1811	1870	1530	1856	1870	1870	1856	1796
Adj Flow Rate, veh/h	105	31	28	220	46	136	35	1211	45	230	1738	36
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	4	2	2	6	2	25	3	2	2	3	7
Cap, veh/h	256	75	61	282	50	349	207	2029	912	328	2197	45
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.02	0.58	0.58	0.14	1.00	1.00
Sat Flow, veh/h	994	341	275	1095	229	1585	1457	3526	1584	1781	3532	73
Grp Volume(v), veh/h	164	0	0	266	0	136	35	1211	45	230	865	909
Grp Sat Flow(s),veh/h/ln	1610	0	0	1325	0	1585	1457	1763	1584	1781	1763	1842
Q Serve(g_s), s	0.0	0.0	0.0	17.6	0.0	11.7	1.6	35.5	2.0	8.8	0.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0	31.5	0.0	11.7	1.6	35.5	2.0	8.8	0.0	0.0
Prop In Lane	0.64		0.17	0.83		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	391	0	0	333	0	349	207	2029	912	328	1096	1146
V/C Ratio(X)	0.42	0.00	0.00	0.80	0.00	0.39	0.17	0.60	0.05	0.70	0.79	0.79
Avail Cap(c_a), veh/h	464	0	0	402	0	429	264	2029	912	504	1096	1146
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.0	0.0	0.0	61.2	0.0	53.2	13.1	22.0	14.8	17.8	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	9.7	0.0	0.9	0.4	1.3	0.1	2.7	5.8	5.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.9	0.0	0.0	17.1	0.0	8.4	1.0	20.7	1.3	5.5	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	54.9	0.0	0.0	71.0	0.0	54.1	13.5	23.3	14.9	20.5	5.8	5.7
LnGrp LOS	D			E		D	B	C	B	C	A	A
Approach Vol, veh/h		164			402			1291			2004	
Approach Delay, s/veh		54.9			65.2			22.7			7.4	
Approach LOS		D			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.7	106.3		41.9	19.2	98.9		41.9				
Change Period (Y+Rc), s	7.8	6.8		6.7	7.8	6.8		6.7				
Max Green Setting (Gmax), s	10.2	85.2		43.3	27.2	68.2		43.3				
Max Q Clear Time (g_c+I1), s	3.6	2.0		33.5	10.8	37.5		15.9				
Green Ext Time (p_c), s	0.0	29.6		1.7	0.5	12.0		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh		20.6
HCM 7th LOS		C

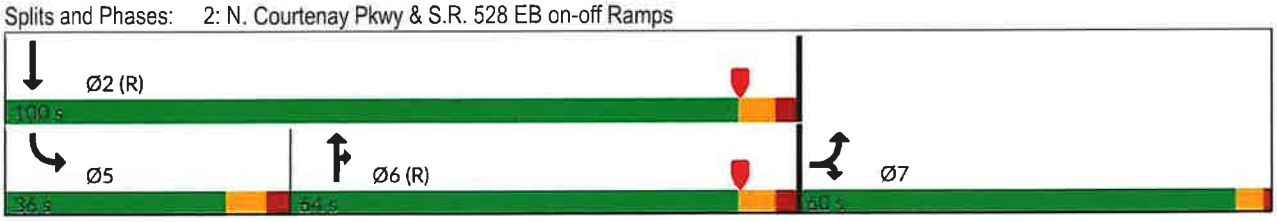
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	857	0	979	0	0	0	0	1167	352	263	1011	0
Future Volume (vph)	857	0	979	0	0	0	0	1167	352	263	1011	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	912	0	1041	0	0	0	0	1241	374	280	1076	0
Turn Type	Prot		Prot					NA	Perm	Prot	NA	
Protected Phases	7		7					6		5	2	
Permitted Phases									6			
Detector Phase	7		7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0		5.0					12.0	12.0	5.0	12.0	
Minimum Split (s)	9.5		9.5					25.4	25.4	25.8	25.4	
Total Split (s)	60.0		60.0					64.0	64.0	36.0	100.0	
Total Split (%)	37.5%		37.5%					40.0%	40.0%	22.5%	62.5%	
Maximum Green (s)	55.5		55.5					56.6	56.6	28.2	92.6	
Yellow Time (s)	3.5		3.5					4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0		1.0					2.6	2.6	3.0	2.6	
Lost Time Adjust (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5					7.4	7.4	7.8	7.4	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					4.0	4.0	4.0	4.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)	55.5		55.5					56.6	56.6	28.2	92.6	
Actuated g/C Ratio	0.35		0.35					0.35	0.35	0.18	0.58	
v/c Ratio	0.80		0.97					0.71	0.48	1.01	0.56	
Control Delay (s/veh)	53.4		64.1					62.4	22.7	98.8	15.4	
Queue Delay	3.3		0.0					5.1	0.0	0.0	0.8	
Total Delay (s/veh)	56.7		64.1					67.5	22.7	98.8	16.2	
LOS	E		E					E	C	F	B	
Approach Delay (s/veh)		60.6						57.1			33.2	
Approach LOS		E						E			C	
Queue Length 50th (ft)	444		538					486	173	~305	456	
Queue Length 95th (ft)	529		#706					536	m282	#500	531	
Internal Link Dist (ft)		674			677			1602			365	
Turn Bay Length (ft)	385		385						725			
Base Capacity (vph)	1145		1073					1739	783	277	1911	
Starvation Cap Reductn	0		0					0	0	0	494	
Spillback Cap Reductn	148		0					428	0	0	0	
Storage Cap Reductn	0		0					0	0	0	0	
Reduced v/c Ratio	0.91		0.97					0.95	0.48	1.01	0.76	

Intersection Summary

Cycle Length: 160
Actuated Cycle Length: 160
Offset: 73 (46%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 90

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay (s/veh): 51.9 Intersection LOS: D
Intersection Capacity Utilization 126.0% ICU Level of Service H
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: 2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	857	0	979	0	0	0	0	1167	352	263	1011	0
Future Volume (veh/h)	857	0	979	0	0	0	0	1167	352	263	1011	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	1811	0	1870				0	1870	1870	1796	1870	0
Adj Flow Rate, veh/h	912	0	0				0	1241	0	280	1076	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	0	2				0	2	2	7	2	0
Cap, veh/h	989	0					0	2072		300	2239	0
Arrive On Green	0.30	0.00	0.00				0.00	0.13	0.00	0.06	0.21	0.00
Sat Flow, veh/h	3346	0	2790				0	5274	1585	1711	3647	0
Grp Volume(v), veh/h	912	0	0				0	1241	0	280	1076	0
Grp Sat Flow(s),veh/h/ln	1673	0	1395				0	1702	1585	1711	1777	0
Q Serve(g_s), s	42.2	0.0	0.0				0.0	36.6	0.0	26.1	42.6	0.0
Cycle Q Clear(g_c), s	42.2	0.0	0.0				0.0	36.6	0.0	26.1	42.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	989	0					0	2072		300	2239	0
V/C Ratio(X)	0.92	0.00					0.00	0.60		0.93	0.48	0.00
Avail Cap(c_a), veh/h	1161	0					0	2072		302	2239	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	54.6	0.0	0.0				0.0	57.0	0.0	74.4	40.3	0.0
Incr Delay (d2), s/veh	11.0	0.0	0.0				0.0	1.3	0.0	30.9	0.6	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(95%),veh/ln	26.7	0.0	0.0				0.0	23.8	0.0	20.4	27.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.5	0.0	0.0				0.0	58.3	0.0	105.4	40.9	0.0
LnGrp LOS	E							E		F	D	
Approach Vol, veh/h		912						1241			1356	
Approach Delay, s/veh		65.5						58.3			54.2	
Approach LOS		E						E			D	

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	108.2	51.8	35.9	72.3
Change Period (Y+Rc), s	7.4	4.5	7.8	7.4
Max Green Setting (Gmax), s	92.6	55.5	28.2	56.6
Max Q Clear Time (g_c+I1), s	44.6	44.2	28.1	38.6
Green Ext Time (p_c), s	13.6	3.0	0.0	10.1

Intersection Summary	
HCM 7th Control Delay, s/veh	58.6
HCM 7th LOS	E

Notes

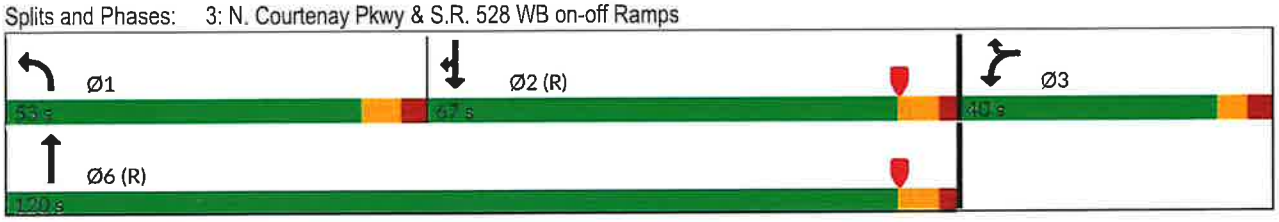
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	239	0	427	556	1593	0	0	1133	514
Future Volume (vph)	0	0	0	239	0	427	556	1593	0	0	1133	514
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	3%	4%	2%	2%	4%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	257	0	459	598	1713	0	0	1218	553
Turn Type				Prot		Perm	Prot	NA			NA	Perm
Protected Phases				3			1	6			2	
Permitted Phases						3						2
Detector Phase				3		3	1	6			2	2
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	22.5	22.5			22.5	22.5
Total Split (s)				40.0		40.0	53.0	120.0			67.0	67.0
Total Split (%)				25.0%		25.0%	33.1%	75.0%			41.9%	41.9%
Maximum Green (s)				33.0		33.0	45.1	112.5			59.5	59.5
Yellow Time (s)				4.0		4.0	4.8	5.3			5.3	5.3
All-Red Time (s)				3.0		3.0	3.1	2.2			2.2	2.2
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				7.0		7.0	7.9	7.5			7.5	7.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			4.0	4.0
Recall Mode				None		None	Min	C-Max			C-Max	C-Max
Act Effct Green (s)				33.0		33.0	33.6	112.5			71.0	71.0
Actuated g/C Ratio				0.21		0.21	0.21	0.70			0.44	0.44
v/c Ratio				0.36		1.20	0.84	0.70			0.55	0.73
Control Delay (s/veh)				56.2		154.3	62.5	36.9			34.5	29.7
Queue Delay				0.0		0.0	0.5	48.5			0.3	0.0
Total Delay (s/veh)				56.2		154.3	63.0	85.4			34.9	29.7
LOS				E		F	E	F			C	C
Approach Delay (s/veh)					119.1			79.6			33.3	
Approach LOS					F			E			C	
Queue Length 50th (ft)				120		~506	293	959			340	312
Queue Length 95th (ft)				165		#735	351	1031			419	510
Internal Link Dist (ft)		690			789			365			641	
Turn Bay Length (ft)				150		275						90
Base Capacity (vph)				708		383	958	2440			2214	757
Starvation Cap Reductn				0		0	97	1088			0	0
Spillback Cap Reductn				0		0	0	0			422	0
Storage Cap Reductn				0		0	0	0			0	0
Reduced v/c Ratio				0.36		1.20	0.69	1.27			0.68	0.73

Intersection Summary
Cycle Length: 160
Actuated Cycle Length: 160

Offset: 25 (16%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay (s/veh): 68.4 Intersection LOS: E
Intersection Capacity Utilization 126.0% ICU Level of Service H
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: 3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	239	0	427	556	1593	0	0	1133	514
Future Volume (veh/h)	0	0	0	239	0	427	556	1593	0	0	1133	514
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		0.98
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	0	1841	1856	1841	0	0	1841	1752
Adj Flow Rate, veh/h				257	0	389	598	1713	0	0	1218	423
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	0	4	3	4	0	0	4	10
Cap, veh/h				713	0	322	653	2459	0	0	2327	673
Arrive On Green				0.21	0.00	0.21	0.38	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	1560	3428	3589	0	0	5191	1454
Grp Volume(v), veh/h				257	0	389	598	1713	0	0	1218	423
Grp Sat Flow(s),veh/h/ln				1728	0	1560	1714	1749	0	0	1675	1454
Q Serve(g_s), s				10.2	0.0	33.0	26.5	0.0	0.0	0.0	27.5	35.3
Cycle Q Clear(g_c), s				10.2	0.0	33.0	26.5	0.0	0.0	0.0	27.5	35.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				713	0	322	653	2459	0	0	2327	673
V/C Ratio(X)				0.36	0.00	1.21	0.92	0.70	0.00	0.00	0.52	0.63
Avail Cap(c_a), veh/h				713	0	322	966	2459	0	0	2327	673
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.58	0.58	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				54.5	0.0	63.5	48.3	0.0	0.0	0.0	30.4	32.5
Incr Delay (d2), s/veh				0.3	0.0	119.5	6.0	1.0	0.0	0.0	0.8	4.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				7.8	0.0	34.5	13.8	0.6	0.0	0.0	16.5	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.8	0.0	183.0	54.3	1.0	0.0	0.0	31.3	36.9
LnGrp LOS				D		F	D	A			C	D
Approach Vol, veh/h					646			2311			1641	
Approach Delay, s/veh					132.0			14.8			32.7	
Approach LOS					F			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	38.4	81.6				120.0		40.0				
Change Period (Y+Rc), s	7.9	7.5				7.5		7.0				
Max Green Setting (Gmax), s	45.1	59.5				112.5		33.0				
Max Q Clear Time (g_c+I1), s	28.5	37.3				2.0		35.0				
Green Ext Time (p_c), s	2.0	13.8				22.9		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		37.6
HCM 7th LOS		D

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	35	1343	4	12	1810
Future Volume (vph)	0	35	1343	4	12	1810
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	38	1464	0	13	1967
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	35	1343	4	12	1810
Future Vol, veh/h	0	35	1343	4	12	1810
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	-	-	240	-
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	38	1460	4	13	1967

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	732	0	0	1464	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	*716	-	-	603	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %		0	-	-	0	-
Mov Cap-1 Maneuver	-	*716	-	-	603	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.31	0	0.07
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	716	603	-
HCM Lane V/C Ratio	-	-	0.053	0.022	-
HCM Ctrl Dly (s/v)	-	-	10.3	11.1	-
HCM Lane LOS	-	-	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 0.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	10	306	67	13	377	2	41	1	12	2	0	35
Future Volume (vph)	10	306	67	13	377	2	41	1	12	2	0	35
Confl. Peds. (#/hr)	6		3	3		6						
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
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	417	0	0	426	0	0	59	0	0	40	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 42.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	306	67	13	377	2	41	1	12	2	0	35
Future Vol, veh/h	10	306	67	13	377	2	41	1	12	2	0	35
Conflicting Peds, #/hr	6	0	3	3	0	6	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
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	4	2	2	2	2	2	2	2
Mvmt Flow	11	333	73	14	410	2	45	1	13	2	0	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	418	0	0	408	0	0	832	840	372	800	875	417
Stage 1	-	-	-	-	-	-	394	394	-	445	445	-
Stage 2	-	-	-	-	-	-	438	446	-	355	430	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1141	-	-	1150	-	-	289	302	674	303	288	636
Stage 1	-	-	-	-	-	-	631	605	-	592	575	-
Stage 2	-	-	-	-	-	-	597	574	-	662	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1135	-	-	1147	-	-	263	291	672	286	277	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	263	291	-	286	277	-
Stage 1	-	-	-	-	-	-	622	596	-	579	562	-
Stage 2	-	-	-	-	-	-	552	561	-	640	574	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.21	0.27	19.63	11.51
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	304	45	-	-	60	-	-	593
HCM Lane V/C Ratio	0.193	0.01	-	-	0.012	-	-	0.068
HCM Ctrl Dly (s/v)	19.6	8.2	0	-	8.2	0	-	11.5
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0.2

BUILD DS
ALTERNATIVE 2

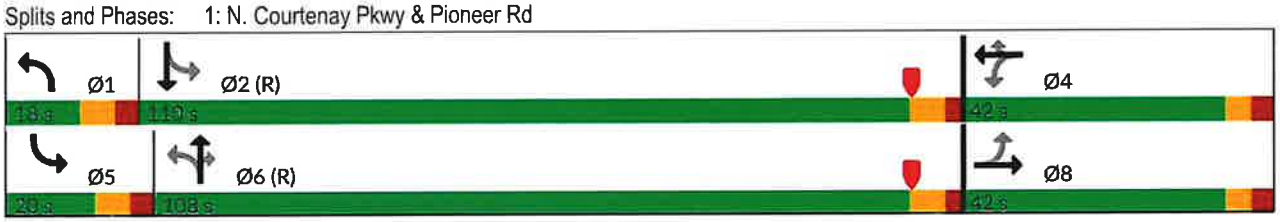
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	133	21	41	149	23	125	52	1561	94	115	1644	36
Future Volume (vph)	133	21	41	149	23	125	52	1561	94	115	1644	36
Confl. Peds. (#/hr)			4	4			2		1	1		2
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	6%	3%	2%	5%	4%	5%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	210	0	0	185	134	56	1678	101	124	1807	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4		4	6		6	2		
Detector Phase	8	8		4	4	4	1	6	6	5	2	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	5.0	15.0	15.0	5.0	15.0	
Minimum Split (s)	41.7	41.7		40.7	40.7	40.7	12.8	30.8	30.8	12.8	32.8	
Total Split (s)	42.0	42.0		42.0	42.0	42.0	18.0	108.0	108.0	20.0	110.0	
Total Split (%)	24.7%	24.7%		24.7%	24.7%	24.7%	10.6%	63.5%	63.5%	11.8%	64.7%	
Maximum Green (s)	35.3	35.3		35.3	35.3	35.3	10.2	101.2	101.2	12.2	103.2	
Yellow Time (s)	3.7	3.7		3.7	3.7	3.7	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.7			6.7	6.7	7.8	6.8	6.8	7.8	6.8	
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.5	3.5		3.5	3.5	3.5	3.0	3.5	3.5	3.0	3.5	
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0		7.0	7.0		7.0	
Flash Don't Walk (s)	28.0	28.0		27.0	27.0	27.0		17.0	17.0		19.0	
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	
Act Effct Green (s)		35.3			35.3	35.3	109.7	103.1	103.1	116.4	108.5	
Actuated g/C Ratio		0.21			0.21	0.21	0.65	0.61	0.61	0.68	0.64	
v/c Ratio		1.14			0.76	0.33	0.43	0.81	0.11	0.72	0.83	
Control Delay (s/veh)		164.6			83.5	14.8	23.4	30.2	5.0	48.6	29.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)		164.6			83.5	14.8	23.4	30.2	5.0	48.6	29.0	
LOS		F			F	B	C	C	A	D	C	
Approach Delay (s/veh)		164.6			54.6			28.6			30.3	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		~265			196	16	18	745	12	55	811	
Queue Length 95th (ft)		#447			#315	81	47	861	39	134	972	
Internal Link Dist (ft)		649			211			778			658	
Turn Bay Length (ft)						125	150		105	245		
Base Capacity (vph)		184			244	403	155	2074	935	190	2176	
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		1.14			0.76	0.33	0.36	0.81	0.11	0.65	0.83	

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 105 (62%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay (s/veh): 37.9	Intersection LOS: D
Intersection Capacity Utilization 87.7%	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: 1: N. Courtenay Pkwy & Pioneer Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	21	41	149	23	125	52	1561	94	115	1644	36
Future Volume (veh/h)	133	21	41	149	23	125	52	1561	94	115	1644	36
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		0.99	1.00		0.99	1.00		1.00	1.00		0.98
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	1811	1856	1870	1826	1841	1826	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	143	23	39	160	25	86	56	1678	71	124	1768	38
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	6	3	2	5	4	5	2	2	2	2	2
Cap, veh/h	216	29	49	226	29	251	262	2409	1073	212	2436	52
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.03	0.68	0.68	0.07	1.00	1.00
Sat Flow, veh/h	1111	179	303	1152	180	1548	1739	3554	1583	1781	3555	76
Grp Volume(v), veh/h	205	0	0	185	0	86	56	1678	71	124	881	925
Grp Sat Flow(s),veh/h/ln	1593	0	0	1332	0	1548	1739	1777	1583	1781	1777	1855
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	8.4	1.7	49.0	2.6	3.8	0.0	0.0
Cycle Q Clear(g_c), s	20.5	0.0	0.0	23.1	0.0	8.4	1.7	49.0	2.6	3.8	0.0	0.0
Prop In Lane	0.70		0.19	0.86		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	294	0	0	255	0	251	262	2409	1073	212	1218	1271
V/C Ratio(X)	0.70	0.00	0.00	0.72	0.00	0.34	0.21	0.70	0.07	0.59	0.72	0.73
Avail Cap(c_a), veh/h	358	0	0	317	0	322	319	2409	1073	277	1218	1271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.3	0.0	0.0	69.4	0.0	63.2	7.6	16.7	9.2	19.3	0.0	0.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	6.7	0.0	1.0	0.4	1.7	0.1	2.6	3.8	3.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.9	0.0	0.0	13.1	0.0	6.1	1.1	26.2	1.6	4.1	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	73.3	0.0	0.0	76.1	0.0	64.2	8.0	18.4	9.4	21.9	3.8	3.7
LnGrp LOS	E			E		E	A	B	A	C	A	A
Approach Vol, veh/h		205			271			1805			1930	
Approach Delay, s/veh		73.3			72.3			17.7			4.9	
Approach LOS		E			E			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	123.3		34.3	13.7	122.0		34.3				
Change Period (Y+Rc), s	7.8	6.8		6.7	7.8	6.8		6.7				
Max Green Setting (Gmax), s	10.2	103.2		35.3	12.2	101.2		35.3				
Max Q Clear Time (g_c+I1), s	3.7	2.0		25.1	5.8	51.0		22.5				
Green Ext Time (p_c), s	0.0	32.3		1.1	0.1	24.1		1.1				

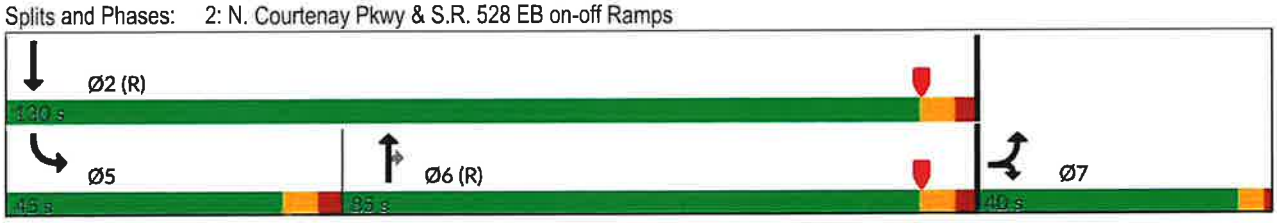
Intersection Summary		
HCM 7th Control Delay, s/veh		18.1
HCM 7th LOS		B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	2%	2%	7%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type	Prot		Prot						Perm	Prot		
Protected Phases	7		7					6		5	2	
Permitted Phases									6			
Detector Phase	7		7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0		5.0					12.0	12.0	5.0	12.0	
Minimum Split (s)	9.5		9.5					25.4	25.4	25.8	25.4	
Total Split (s)	40.0		40.0					85.0	85.0	45.0	130.0	
Total Split (%)	23.5%		23.5%					50.0%	50.0%	26.5%	76.5%	
Maximum Green (s)	35.5		35.5					77.6	77.6	37.2	122.6	
Yellow Time (s)	3.5		3.5					4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0		1.0					2.6	2.6	3.0	2.6	
Lost Time Adjust (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.5		4.5					7.4	7.4	7.8	7.4	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Vehicle Extension (s)	3.0		3.0					4.0	4.0	4.0	4.0	
Recall Mode	None		None					C-Max	C-Max	None	C-Max	
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay (s/veh)												
Queue Delay												
Total Delay (s/veh)												
LOS												
Approach Delay (s/veh)												
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		674			677			1602			365	
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

Intersection Summary
Cycle Length: 170
Actuated Cycle Length: 170
Offset: 99 (58%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 65

Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.00
Intersection Signal Delay (s/veh): 0.0 Intersection LOS: A
Intersection Capacity Utilization 38.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: N. Courtenay Pkwy & S.R. 528 EB on-off Ramps



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	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	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	1811	0	1870				0	1870	1870	1796	1870	0
Adj Flow Rate, veh/h	0	0	0				0	0	0	0	0	0
Peak Hour Factor	0.94	0.94	0.94				0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	0	2				0	2	2	7	2	0
Cap, veh/h	2	0					0	4884		1	3399	0
Arrive On Green	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	3346	0	2790				0	5274	1585	1711	3647	0
Grp Volume(v), veh/h	0	0	0				0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1673	0	1395				0	1702	1585	1711	1777	0
Q Serve(g_s), s	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	2	0					0	4884		1	3399	0
V/C Ratio(X)	0.00	0.00					0.00	0.00		0.00	0.00	0.00
Avail Cap(c_a), veh/h	699	0					0	4884		374	3399	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h		0						0			0	
Approach Delay, s/veh		0.0						0.0			0.0	
Approach LOS												

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	170.0	0.0	0.0	170.0
Change Period (Y+Rc), s	7.4	4.5	7.8	7.4
Max Green Setting (Gmax), s	122.6	35.5	37.2	77.6
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	0.0
HCM 7th LOS	A

Notes

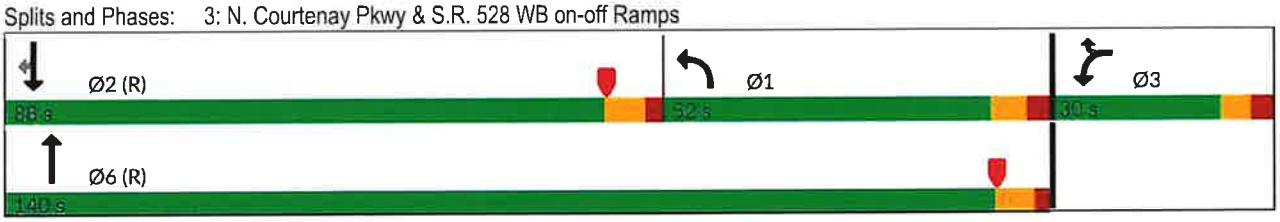
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Confl. Peds. (#/hr)						1						
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	3%	4%	2%	2%	4%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Turn Type				Prot		Perm	Prot					Perm
Protected Phases				3			1	6			2	
Permitted Phases						3						2
Detector Phase				3		3	1	6			2	2
Switch Phase												
Minimum Initial (s)				7.0		7.0	5.0	12.0			12.0	12.0
Minimum Split (s)				14.0		14.0	22.5	22.5			22.5	22.5
Total Split (s)				30.0		30.0	52.0	140.0			88.0	88.0
Total Split (%)				17.6%		17.6%	30.6%	82.4%			51.8%	51.8%
Maximum Green (s)				23.0		23.0	44.1	132.5			80.5	80.5
Yellow Time (s)				4.0		4.0	4.8	5.3			5.3	5.3
All-Red Time (s)				3.0		3.0	3.1	2.2			2.2	2.2
Lost Time Adjust (s)				0.0		0.0	0.0	0.0			0.0	0.0
Total Lost Time (s)				7.0		7.0	7.9	7.5			7.5	7.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0		3.0	3.0	3.0			4.0	4.0
Recall Mode				None		None	Min	C-Max			C-Max	C-Max
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay (s/veh)												
Queue Delay												
Total Delay (s/veh)												
LOS												
Approach Delay (s/veh)												
Approach LOS												
Queue Length 50th (ft)												
Queue Length 95th (ft)												
Internal Link Dist (ft)		690			789			365			641	
Turn Bay Length (ft)												
Base Capacity (vph)												
Starvation Cap Reductn												
Spillback Cap Reductn												
Storage Cap Reductn												
Reduced v/c Ratio												

Intersection Summary
Cycle Length: 170
Actuated Cycle Length: 170

Offset: 62 (36%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.00
Intersection Signal Delay (s/veh): 0.0 Intersection LOS: A
Intersection Capacity Utilization 38.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: N. Courtenay Pkwy & S.R. 528 WB on-off Ramps



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	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	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	0	1841	1856	1841	0	0	1841	1752
Adj Flow Rate, veh/h				0	0	0	0	0	0	0	0	0
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				2	0	4	3	4	0	0	4	10
Cap, veh/h				2	0	1	1494	3335	0	0	2380	703
Arrive On Green				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h				3456	0	1560	3428	3589	0	0	5191	1485
Grp Volume(v), veh/h				0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln				1728	0	1560	1714	1749	0	0	1675	1485
Q Serve(g_s), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				2	0	1	1494	3335	0	0	2380	703
V/C Ratio(X)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h				468	0	211	1494	3335	0	0	2380	703
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS												
Approach Vol, veh/h					0			0			0	
Approach Delay, s/veh					0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	82.0	88.0			170.0		0.0					
Change Period (Y+Rc), s	7.9	7.5			* 7.9		7.0					
Max Green Setting (Gmax), s	44.1	80.5			* 1.3E+02		23.0					
Max Q Clear Time (g_c+I1), s	0.0	0.0			0.0		0.0					
Green Ext Time (p_c), s	0.0	0.0			0.0		0.0					

Intersection Summary	
HCM 7th Control Delay, s/veh	0.0
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop		Free			Free

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 0.0%		ICU Level of Service A	
Analysis Period (min) 15			

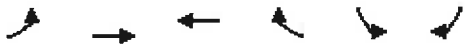
Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
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	-	-	240	-
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	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	0	0	0	0	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control		Free	Free		Stop	

Intersection Summary			
Control Type: Unsignalized			
Intersection Capacity Utilization 0.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	1	1
Stage 1	-	-	-	-	1	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022	1083
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1622	-	-	-	1022	1083
Mov Cap-2 Maneuver	-	-	-	-	1022	-
Stage 1	-	-	-	-	1022	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Ctrl Dly (s/v)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-