Existing Conditions

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	50	32	189	110	0	0	0	0	177	1	7
Future Vol, veh/h	0	50	32	189	110	0	0	0	0	177	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	53	34	199	116	0	0	0	0	186	1	7

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	514	514	116
Stage 1	-	-	-	514	514	-
Stage 2	-	-	-	0	0	-
Critical Hdwy	4.13	-	-	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	-	-	0	469	463	934
Stage 1	-	-	0	541	534	-
Stage 2	-	-	0	-	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-	-	469	463	934
Mov Cap-2 Maneuver	-	-	-	469	463	-
Stage 1	-	-	-	541	534	-
Stage 2	-	-	-	-	-	-

Approach	WB	SB
HCM Control Delay, s		17.6
HCM LOS		C

Minor Lane/Major Mvmt	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	478
HCM Lane V/C Ratio	-	-	0.407
HCM Control Delay (s)	-	-	17.6
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	9	218	0	0	274	488	25	1	206	0	0	0
Future Vol, veh/h	9	218	0	0	274	488	25	1	206	0	0	0
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	-	-	Free	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	251	0	0	315	561	29	1	237	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	315	0	-	-	-	0	586	586	251
Stage 1	-	-	-	-	-	-	271	271	-
Stage 2	-	-	-	-	-	-	315	315	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1245	-	0	0	-	0	473	422	788
Stage 1	-	-	0	0	-	0	775	685	-
Stage 2	-	-	0	0	-	0	740	656	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1245	-	-	-	-	-	469	0	788
Mov Cap-2 Maneuver	-	-	-	-	-	-	469	0	-
Stage 1	-	-	-	-	-	-	768	0	-
Stage 2	-	-	-	-	-	-	740	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT
Capacity (veh/h)	887	1245	-	-
HCM Lane V/C Ratio	0.301	0.008	-	-
HCM Control Delay (s)	10.8	7.9	0	-
HCM Lane LOS	B	A	A	-
HCM 95th %tile Q(veh)	1.3	0	-	-

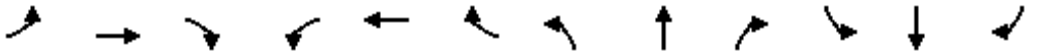
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	407	17	13	733	0	29	0	11	0	0	0
Future Vol, veh/h	0	407	17	13	733	0	29	0	11	0	0	0
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	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	473	20	15	852	0	34	0	13	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	852	0	0	493	0	0	1366	1366	483	1373	1376	852
Stage 1	-	-	-	-	-	-	483	483	-	883	883	-
Stage 2	-	-	-	-	-	-	883	883	-	490	493	-
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	787	-	-	1071	-	-	124	147	584	123	145	359
Stage 1	-	-	-	-	-	-	565	553	-	340	364	-
Stage 2	-	-	-	-	-	-	340	364	-	560	547	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	787	-	-	1071	-	-	121	143	584	118	141	359
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	143	-	118	141	-
Stage 1	-	-	-	-	-	-	565	553	-	340	354	-
Stage 2	-	-	-	-	-	-	331	354	-	548	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	37.9	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	155	787	-	-	1071	-	-	-
HCM Lane V/C Ratio	0.3	-	-	-	0.014	-	-	-
HCM Control Delay (s)	37.9	0	-	-	8.4	0	-	0
HCM Lane LOS	E	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	48	154	23	172	87	315	278	9	21	171	259
Future Volume (veh/h)	216	48	154	23	172	87	315	278	9	21	171	259
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	257	57	183	27	205	104	375	331	11	25	204	0
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	69	337	35	268	259	420	1160	38	49	434	0
Arrive On Green	0.21	0.21	0.21	0.16	0.16	0.16	0.24	0.33	0.33	0.03	0.12	0.00
Sat Flow, veh/h	1465	325	1583	216	1636	1583	1774	3496	116	1774	3632	0
Grp Volume(v), veh/h	314	0	183	232	0	104	375	167	175	25	204	0
Grp Sat Flow(s),veh/h/ln	1790	0	1583	1852	0	1583	1774	1770	1842	1774	1770	0
Q Serve(g_s), s	11.4	0.0	7.0	8.2	0.0	4.0	13.9	4.8	4.8	0.9	3.7	0.0
Cycle Q Clear(g_c), s	11.4	0.0	7.0	8.2	0.0	4.0	13.9	4.8	4.8	0.9	3.7	0.0
Prop In Lane	0.82		1.00	0.12		1.00	1.00		0.06	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	337	303	0	259	420	587	611	49	434	0
V/C Ratio(X)	0.82	0.00	0.54	0.77	0.00	0.40	0.89	0.28	0.29	0.51	0.47	0.00
Avail Cap(c_a), veh/h	472	0	418	489	0	418	455	794	827	140	960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.6	0.0	23.9	27.3	0.0	25.5	25.2	16.8	16.8	32.7	27.8	0.0
Incr Delay (d2), s/veh	9.4	0.0	1.4	4.0	0.0	1.0	18.6	0.3	0.3	7.9	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	3.2	4.5	0.0	1.8	8.9	2.4	2.5	0.6	1.8	0.0
LnGrp Delay(d),s/veh	35.0	0.0	25.2	31.3	0.0	26.5	43.8	17.1	17.1	40.6	28.6	0.0
LnGrp LOS	D		C	C		C	D	B	B	D	C	
Approach Vol, veh/h		497			336			717			229	
Approach Delay, s/veh		31.4			29.8			31.0			29.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.4	27.1		19.0	20.7	12.9		15.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.4	30.6		18.0	17.5	18.5		18.0
Max Q Clear Time (g_c+I1), s	2.9	6.8		13.4	15.9	5.7		10.2
Green Ext Time (p_c), s	0.0	3.4		1.1	0.2	2.7		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	2	0	0	105	95	4
Future Vol, veh/h	2	0	0	105	95	4
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	75	75	75	75	75	75
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	3	0	0	140	127	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	269	129	132	0	-	0
Stage 1	129	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.49	6.29	4.19	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	2.281	-	-	-
Pot Cap-1 Maneuver	706	902	1411	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	706	902	1411	-	-	-
Mov Cap-2 Maneuver	706	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1411	-	706	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	25	1	18	89	98	18
Future Vol, veh/h	25	1	18	89	98	18
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	84	84	84	84	84	84
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	30	1	21	106	117	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	276	127	138	0	-	0
Stage 1	127	-	-	-	-	-
Stage 2	149	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	705	913	1421	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	869	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	694	913	1421	-	-	-
Mov Cap-2 Maneuver	694	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	855	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1421	-	700	-	-
HCM Lane V/C Ratio	0.015	-	0.044	-	-
HCM Control Delay (s)	7.6	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	113	63	0	0	0	0	0	105	0	9
Future Vol, veh/h	0	0	113	63	0	0	0	0	0	105	0	9
Peak Hour Factor	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	6	6	6	2	6	6	6	2	6	6	6
Mvmt Flow	0	0	135	75	0	0	0	0	0	125	0	11
Number of Lanes	0	0	1	0	0	0	0	0	0	1	0	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	1
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	1	1
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	9.5	9.1
HCM LOS	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	92%	0%	0%
Vol Thru, %	0%	64%	24%
Vol Right, %	8%	36%	76%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	114	176	224
LT Vol	105	0	0
Through Vol	0	113	53
RT Vol	9	63	171
Lane Flow Rate	136	210	267
Geometry Grp	1	1	1
Degree of Util (X)	0.186	0.272	0.313
Departure Headway (Hd)	4.935	4.68	4.222
Convergence, Y/N	Yes	Yes	Yes
Cap	726	765	851
Service Time	2.974	2.721	2.254
HCM Lane V/C Ratio	0.187	0.275	0.314
HCM Control Delay	9.1	9.5	9.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	1.1	1.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	53	171
Future Vol, veh/h	0	0	53	171
Peak Hour Factor	0.92	0.84	0.84	0.84
Heavy Vehicles, %	2	6	6	6
Mvmt Flow	0	0	63	204
Number of Lanes	0	0	1	0

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

Lane

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	7	0	0	48	228	0	1	169	156
Future Vol, veh/h	0	0	0	7	0	0	48	228	0	1	169	156
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	9	0	0	62	292	0	1	217	200

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	734	834	292	417	0	0	292	0	0
Stage 1	415	415	-	-	-	-	-	-	-
Stage 2	319	419	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	334	303	745	1137	-	-	1264	-	-
Stage 1	613	591	-	-	-	-	-	-	-
Stage 2	690	588	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	317	283	745	1137	-	-	1264	-	-
Mov Cap-2 Maneuver	317	283	-	-	-	-	-	-	-
Stage 1	573	553	-	-	-	-	-	-	-
Stage 2	689	587	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	1.5	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1137	-	-	317	1264	-	-
HCM Lane V/C Ratio	0.054	-	-	0.028	0.001	-	-
HCM Control Delay (s)	8.3	0	-	16.7	7.9	-	-
HCM Lane LOS	A	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1	0	0	1	2	6	310	0	0	0	0
Future Vol, veh/h	0	1	0	0	1	2	6	310	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1	0	0	1	3	8	397	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	415	413	-	-	413	397	0	0	0
Stage 1	0	0	-	-	413	-	-	-	-
Stage 2	415	413	-	-	0	-	-	-	-
Critical Hdwy	7.13	6.53	-	-	6.53	6.23	4.13	-	-
Critical Hdwy Stg 1	-	-	-	-	5.53	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	-	-	4.027	3.327	2.227	-	-
Pot Cap-1 Maneuver	546	528	0	0	528	650	-	-	-
Stage 1	-	-	0	0	592	-	-	-	-
Stage 2	613	592	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	543	528	-	-	528	650	-	-	-
Mov Cap-2 Maneuver	543	528	-	-	528	-	-	-	-
Stage 1	-	-	-	-	592	-	-	-	-
Stage 2	609	592	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	11.8	11	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	528	604
HCM Lane V/C Ratio	-	-	-	0.002	0.006
HCM Control Delay (s)	-	-	-	11.8	11
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0	0

Intersection	
Int Delay, s/veh	31.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	155	172	366	174	107	171
Future Vol, veh/h	155	172	366	174	107	171
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	25	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	72	72	72	72	72	72
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	215	239	508	242	149	238

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1164	629	0	0	750	0
Stage 1	629	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	216	484	-	-	864	-
Stage 1	533	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 173	484	-	-	864	-
Mov Cap-2 Maneuver	~ 173	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	472	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	106	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	173	484	864	-
HCM Lane V/C Ratio	-	-	1.244	0.494	0.172	-
HCM Control Delay (s)	-	-	201.9	19.5	10	0
HCM Lane LOS	-	-	F	C	B	A
HCM 95th %tile Q(veh)	-	-	12	2.7	0.6	-

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

Intersection	
Int Delay, s/veh	86.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	126	22	332	107	0	0	0	0	352	0	19
Future Vol, veh/h	0	126	22	332	107	0	0	0	0	352	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	134	23	353	114	0	0	0	0	374	0	20

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	820	820	114
Stage 1	-	-	-	820	820	-
Stage 2	-	-	-	0	0	-
Critical Hdwy	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	0	~ 294	310	939
Stage 1	-	-	0	~ 369	389	-
Stage 2	-	-	0	-	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-	-	~ 294	310	939
Mov Cap-2 Maneuver	-	-	-	~ 294	310	-
Stage 1	-	-	-	~ 369	389	-
Stage 2	-	-	-	-	-	-

Approach	WB	SB
HCM Control Delay, s		189
HCM LOS		F

Minor Lane/Major Mvmt	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	305
HCM Lane V/C Ratio	-	-	1.294
HCM Control Delay (s)	-	-	189
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	19

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

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	13	465	0	0	413	228	26	0	220	0	0	0
Future Vol, veh/h	13	465	0	0	413	228	26	0	220	0	0	0
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	-	-	Free	-	-	Yield	-	-	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	495	0	0	439	243	28	0	234	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	439	0	-	-	-	0	961	961	495
Stage 1	-	-	-	-	-	-	522	522	-
Stage 2	-	-	-	-	-	-	439	439	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1121	-	0	0	-	0	284	256	575
Stage 1	-	-	0	0	-	0	595	531	-
Stage 2	-	-	0	0	-	0	650	578	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1121	-	-	-	-	-	279	0	575
Mov Cap-2 Maneuver	-	-	-	-	-	-	279	0	-
Stage 1	-	-	-	-	-	-	585	0	-
Stage 2	-	-	-	-	-	-	650	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT
Capacity (veh/h)	643	1121	-	-
HCM Lane V/C Ratio	0.407	0.012	-	-
HCM Control Delay (s)	14.4	8.3	0	-
HCM Lane LOS	B	A	A	-
HCM 95th %tile Q(veh)	2	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	642	43	9	611	0	30	0	13	0	0	0
Future Vol, veh/h	0	642	43	9	611	0	30	0	13	0	0	0
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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	0	683	46	10	650	0	32	0	14	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	650	0	0	729	0	0	1375	1375	706	1382	1398	650
Stage 1	-	-	-	-	-	-	706	706	-	669	669	-
Stage 2	-	-	-	-	-	-	669	669	-	713	729	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.11	6.51	6.21	7.11	6.51	6.21
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.11	5.51	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.509	4.009	3.309	3.509	4.009	3.309
Pot Cap-1 Maneuver	941	-	-	879	-	-	123	146	438	122	141	471
Stage 1	-	-	-	-	-	-	428	440	-	449	457	-
Stage 2	-	-	-	-	-	-	449	457	-	424	430	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	941	-	-	879	-	-	121	143	438	117	138	471
Mov Cap-2 Maneuver	-	-	-	-	-	-	121	143	-	117	138	-
Stage 1	-	-	-	-	-	-	428	440	-	449	449	-
Stage 2	-	-	-	-	-	-	441	449	-	411	430	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	37.7	0
HCM LOS			E	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	155	941	-	-	879	-	-	-
HCM Lane V/C Ratio	0.295	-	-	-	0.011	-	-	-
HCM Control Delay (s)	37.7	0	-	-	9.1	0	-	0
HCM Lane LOS	E	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	271	119	265	5	75	55	123	175	11	60	223	422
Future Volume (veh/h)	271	119	265	5	75	55	123	175	11	60	223	422
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1881	1881	1900	1881	1881	1881	1881	1900	1881	1881	1900
Adj Flow Rate, veh/h	274	120	268	5	76	56	124	177	11	61	225	0
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	359	157	454	10	157	143	165	612	38	105	520	0
Arrive On Green	0.28	0.28	0.28	0.09	0.09	0.09	0.09	0.18	0.18	0.06	0.15	0.00
Sat Flow, veh/h	1264	554	1599	116	1760	1599	1792	3420	211	1792	3668	0
Grp Volume(v), veh/h	394	0	268	81	0	56	124	92	96	61	225	0
Grp Sat Flow(s),veh/h/ln	1818	0	1599	1875	0	1599	1792	1787	1844	1792	1787	0
Q Serve(g_s), s	9.2	0.0	6.7	1.9	0.0	1.5	3.1	2.1	2.1	1.5	2.7	0.0
Cycle Q Clear(g_c), s	9.2	0.0	6.7	1.9	0.0	1.5	3.1	2.1	2.1	1.5	2.7	0.0
Prop In Lane	0.70		1.00	0.06		1.00	1.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	517	0	454	168	0	143	165	320	330	105	520	0
V/C Ratio(X)	0.76	0.00	0.59	0.48	0.00	0.39	0.75	0.29	0.29	0.58	0.43	0.00
Avail Cap(c_a), veh/h	707	0	622	729	0	622	677	1181	1219	209	1428	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.1	0.0	14.2	20.1	0.0	19.9	20.5	16.5	16.5	21.2	18.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	1.2	2.1	0.0	1.7	6.7	0.5	0.5	5.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	3.1	1.1	0.0	0.7	1.9	1.1	1.1	0.9	1.4	0.0
LnGrp Delay(d),s/veh	18.5	0.0	15.5	22.2	0.0	21.6	27.2	16.9	16.9	26.2	18.6	0.0
LnGrp LOS	B		B	C		C	C	B	B	C	B	
Approach Vol, veh/h		662			137			312			286	
Approach Delay, s/veh		17.3			22.0			21.0			20.2	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	12.8		17.7	8.8	11.2		8.6
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.4	30.6		18.0	17.5	18.5		18.0
Max Q Clear Time (g_c+I1), s	3.5	4.1		11.2	5.1	4.7		3.9
Green Ext Time (p_c), s	0.0	2.6		2.0	0.2	2.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	2	0	163	137	1
Future Vol, veh/h	0	2	0	163	137	1
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	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	201	169	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	371	170	170	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	201	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	630	874	1407	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	630	874	1407	-	-	-
Mov Cap-2 Maneuver	630	-	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1407	-	874	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	28	15	6	157	123	18
Future Vol, veh/h	28	15	6	157	123	18
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	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	32	17	7	178	140	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	342	150	160	0	-	0
Stage 1	150	-	-	-	-	-
Stage 2	192	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	656	899	1425	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	653	899	1425	-	-	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1425	-	722	-	-
HCM Lane V/C Ratio	0.005	-	0.068	-	-
HCM Control Delay (s)	7.5	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	124	89	0	0	0	0	0	176	0	9
Future Vol, veh/h	0	0	124	89	0	0	0	0	0	176	0	9
Peak Hour Factor	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	1	1	1	2	1	1	1	2	1	1	1
Mvmt Flow	0	0	141	101	0	0	0	0	0	200	0	10
Number of Lanes	0	0	1	0	0	0	0	0	0	1	0	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	1
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	1	1
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	10.3	10.2
HCM LOS	B	B

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	95%	0%	0%
Vol Thru, %	0%	58%	18%
Vol Right, %	5%	42%	82%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	185	213	295
LT Vol	176	0	0
Through Vol	0	124	52
RT Vol	9	89	243
Lane Flow Rate	210	242	335
Geometry Grp	1	1	1
Degree of Util (X)	0.295	0.327	0.4
Departure Headway (Hd)	5.048	4.868	4.295
Convergence, Y/N	Yes	Yes	Yes
Cap	706	733	831
Service Time	3.114	2.94	2.35
HCM Lane V/C Ratio	0.297	0.33	0.403
HCM Control Delay	10.2	10.3	10.2
HCM Lane LOS	B	B	B
HCM 95th-tile Q	1.2	1.4	1.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	52	243
Future Vol, veh/h	0	0	52	243
Peak Hour Factor	0.92	0.88	0.88	0.88
Heavy Vehicles, %	2	1	1	1
Mvmt Flow	0	0	59	276
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.2
HCM LOS	B

Lane

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	7	0	0	55	363	1	2	206	133
Future Vol, veh/h	0	0	0	7	0	0	55	363	1	2	206	133
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	7	0	0	59	386	1	2	219	141

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	798	869	387	361	0	0	387	0	0
Stage 1	504	504	-	-	-	-	-	-	-
Stage 2	294	365	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	355	290	661	1198	-	-	1171	-	-
Stage 1	607	541	-	-	-	-	-	-	-
Stage 2	756	623	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	332	0	661	1198	-	-	1171	-	-
Mov Cap-2 Maneuver	332	0	-	-	-	-	-	-	-
Stage 1	569	0	-	-	-	-	-	-	-
Stage 2	754	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1198	-	-	332	1171	-	-
HCM Lane V/C Ratio	0.049	-	-	0.022	0.002	-	-
HCM Control Delay (s)	8.2	0	-	16.1	8.1	-	-
HCM Lane LOS	A	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	3	0	0	1	3	6	121	0	0	0	0
Future Vol, veh/h	0	3	0	0	1	3	6	121	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	0	0	1	3	6	129	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	144	141	-	-	141	129	0	0	0
Stage 1	0	0	-	-	141	-	-	-	-
Stage 2	144	141	-	-	0	-	-	-	-
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	825	750	0	0	750	921	-	-	-
Stage 1	-	-	0	0	780	-	-	-	-
Stage 2	859	780	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	821	750	-	-	750	921	-	-	-
Mov Cap-2 Maneuver	821	750	-	-	750	-	-	-	-
Stage 1	-	-	-	-	780	-	-	-	-
Stage 2	855	780	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.8	9.2	
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	750	871
HCM Lane V/C Ratio	-	-	-	0.004	0.005
HCM Control Delay (s)	-	-	-	9.8	9.2
HCM Lane LOS	-	-	-	A	A
HCM 95th %tile Q(veh)	-	-	-	0	0

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	143	112	206	281	149	198
Future Vol, veh/h	143	112	206	281	149	198
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	25	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	154	120	222	302	160	213

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	906	373	0	0	524	0
Stage 1	373	-	-	-	-	-
Stage 2	533	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	308	675	-	-	1048	-
Stage 1	699	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	255	675	-	-	1048	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.6	0	3.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	255	675	1048	-
HCM Lane V/C Ratio	-	-	0.603	0.178	0.153	-
HCM Control Delay (s)	-	-	38.5	11.5	9.1	0
HCM Lane LOS	-	-	E	B	A	A
HCM 95th %tile Q(veh)	-	-	3.6	0.6	0.5	-

Cumulative No Build Alternative

Intersection	
Int Delay, s/veh	40

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	150	40	240	230	0	0	0	0	305	5	35
Future Vol, veh/h	0	150	40	240	230	0	0	0	0	305	5	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	158	42	253	242	0	0	0	0	321	5	37

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	747	747	242
Stage 1	-	-	-	747	747	-
Stage 2	-	-	-	0	0	-
Critical Hdwy	4.13	-	-	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.227	-	-	3.527	4.027	3.327
Pot Cap-1 Maneuver	-	-	0	328	340	794
Stage 1	-	-	0	403	419	-
Stage 2	-	-	0	-	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-	-	328	340	794
Mov Cap-2 Maneuver	-	-	-	328	340	-
Stage 1	-	-	-	403	419	-
Stage 2	-	-	-	-	-	-

Approach	WB	SB
HCM Control Delay, s		94.5
HCM LOS		F

Minor Lane/Major Mvmt	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	349
HCM Lane V/C Ratio	-	-	1.041
HCM Control Delay (s)	-	-	94.5
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	12.6

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	30	425	0	0	430	660	40	5	245	0	0	0
Future Vol, veh/h	30	425	0	0	430	660	40	5	245	0	0	0
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	-	-	Free	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	483	0	0	489	750	45	6	278	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	489	0	-	-	-	0	1040	1040	483
Stage 1	-	-	-	-	-	-	551	551	-
Stage 2	-	-	-	-	-	-	489	489	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1074	-	0	0	-	0	255	230	584
Stage 1	-	-	0	0	-	0	577	515	-
Stage 2	-	-	0	0	-	0	616	549	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	1074	-	-	-	-	-	244	0	584
Mov Cap-2 Maneuver	-	-	-	-	-	-	244	0	-
Stage 1	-	-	-	-	-	-	552	0	-
Stage 2	-	-	-	-	-	-	616	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT
Capacity (veh/h)	691	1074	-	-
HCM Lane V/C Ratio	0.477	0.032	-	-
HCM Control Delay (s)	14.9	8.5	0	-
HCM Lane LOS	B	A	A	-
HCM 95th %tile Q(veh)	2.6	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	650	20	15	1060	0	30	0	15	0	0	0
Future Vol, veh/h	0	650	20	15	1060	0	30	0	15	0	0	0
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	739	23	17	1205	0	34	0	17	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1205	0	0	761	0	0	1989	1989	750	1998	2000	1205
Stage 1	-	-	-	-	-	-	750	750	-	1239	1239	-
Stage 2	-	-	-	-	-	-	1239	1239	-	759	761	-
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	579	-	-	851	-	-	45	61	411	45	60	224
Stage 1	-	-	-	-	-	-	403	419	-	215	247	-
Stage 2	-	-	-	-	-	-	215	247	-	399	414	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	579	-	-	851	-	-	43	57	411	41	56	224
Mov Cap-2 Maneuver	-	-	-	-	-	-	43	57	-	41	56	-
Stage 1	-	-	-	-	-	-	403	419	-	215	232	-
Stage 2	-	-	-	-	-	-	202	232	-	382	414	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	181.2	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	61	579	-	-	851	-	-	-
HCM Lane V/C Ratio	0.838	-	-	-	0.02	-	-	-
HCM Control Delay (s)	181.2	0	-	-	9.3	0	-	0
HCM Lane LOS	F	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	3.8	0	-	-	0.1	-	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	75	305	25	230	242	485	415	10	55	245	360
Future Volume (veh/h)	280	75	305	25	230	242	485	415	10	55	245	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	318	85	347	28	261	275	551	472	11	62	278	0
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	89	373	30	284	268	565	1418	33	80	453	0
Arrive On Green	0.24	0.24	0.24	0.17	0.17	0.17	0.32	0.40	0.40	0.05	0.13	0.00
Sat Flow, veh/h	1414	378	1583	180	1674	1583	1774	3536	82	1774	3632	0
Grp Volume(v), veh/h	403	0	347	289	0	275	551	236	247	62	278	0
Grp Sat Flow(s),veh/h/ln	1792	0	1583	1854	0	1583	1774	1770	1848	1774	1770	0
Q Serve(g_s), s	26.8	0.0	26.0	18.6	0.0	20.5	37.2	11.1	11.2	4.2	9.0	0.0
Cycle Q Clear(g_c), s	26.8	0.0	26.0	18.6	0.0	20.5	37.2	11.1	11.2	4.2	9.0	0.0
Prop In Lane	0.79		1.00	0.10		1.00	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	422	0	373	314	0	268	565	710	741	80	453	0
V/C Ratio(X)	0.95	0.00	0.93	0.92	0.00	1.02	0.98	0.33	0.33	0.78	0.61	0.00
Avail Cap(c_a), veh/h	422	0	373	314	0	268	565	826	863	154	834	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.6	0.0	45.3	49.4	0.0	50.2	40.8	25.0	25.0	57.2	49.9	0.0
Incr Delay (d2), s/veh	32.3	0.0	29.5	31.0	0.0	61.5	31.7	0.3	0.3	14.8	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.1	0.0	14.4	12.2	0.0	13.6	23.2	5.5	5.7	2.4	4.5	0.0
LnGrp Delay(d),s/veh	77.9	0.0	74.8	80.4	0.0	111.8	72.5	25.3	25.3	71.9	51.3	0.0
LnGrp LOS	E		E	F		F	E	C	C	E	D	
Approach Vol, veh/h		750			564			1034			340	
Approach Delay, s/veh		76.4			95.7			50.4			55.0	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	53.0		33.0	43.0	20.0		25.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	10.5	56.5		28.5	38.5	28.5		20.5
Max Q Clear Time (g_c+I1), s	6.2	13.2		28.8	39.2	11.0		22.5
Green Ext Time (p_c), s	0.0	5.5		0.0	0.0	4.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	5	0	0	245	295	8
Future Vol, veh/h	5	0	0	245	295	8
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	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	6	0	0	278	335	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	618	340	344	0	-	0
Stage 1	340	-	-	-	-	-
Stage 2	278	-	-	-	-	-
Critical Hdwy	6.49	6.29	4.19	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.381	2.281	-	-	-
Pot Cap-1 Maneuver	442	687	1177	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	442	687	1177	-	-	-
Mov Cap-2 Maneuver	442	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1177	-	442	-	-
HCM Lane V/C Ratio	-	-	0.013	-	-
HCM Control Delay (s)	0	-	13.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	25	1	18	232	302	25
Future Vol, veh/h	25	1	18	232	302	25
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	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	28	1	20	264	343	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	662	357	372	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Critical Hdwy	6.46	6.26	4.16	-	-	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	421	678	1165	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	413	678	1165	-	-	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	724	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1165	-	419	-	-
HCM Lane V/C Ratio	0.018	-	0.071	-	-
HCM Control Delay (s)	8.1	0	14.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	164	174	0	0	0	0	0	238	0	19
Future Vol, veh/h	0	0	164	174	0	0	0	0	0	238	0	19
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	6	6	6	2	6	6	6	2	6	6	6
Mvmt Flow	0	0	186	198	0	0	0	0	0	270	0	22
Number of Lanes	0	0	1	0	0	0	0	0	0	1	0	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	1
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	1	1
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	17.8	15.1
HCM LOS	C	C

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	93%	0%	0%
Vol Thru, %	0%	49%	34%
Vol Right, %	7%	51%	66%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	257	338	444
LT Vol	238	0	0
Through Vol	0	164	153
RT Vol	19	174	291
Lane Flow Rate	292	384	505
Geometry Grp	1	1	1
Degree of Util (X)	0.495	0.617	0.742
Departure Headway (Hd)	6.099	5.784	5.294
Convergence, Y/N	Yes	Yes	Yes
Cap	587	622	681
Service Time	4.178	3.854	3.363
HCM Lane V/C Ratio	0.497	0.617	0.742
HCM Control Delay	15.1	17.8	22.1
HCM Lane LOS	C	C	C
HCM 95th-tile Q	2.7	4.2	6.6

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	153	291
Future Vol, veh/h	0	0	153	291
Peak Hour Factor	0.88	0.88	0.88	0.88
Heavy Vehicles, %	2	6	6	6
Mvmt Flow	0	0	174	331
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	22.1
HCM LOS	C

Lane

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	15	0	0	109	420	0	1	323	410
Future Vol, veh/h	0	0	0	15	0	0	109	420	0	1	323	410
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	17	0	0	124	477	0	1	367	466

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1327	1560	477	833	0	0	477	0	0
Stage 1	725	725	-	-	-	-	-	-	-
Stage 2	602	835	-	-	-	-	-	-	-
Critical Hdwy	6.43	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	5.43	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.43	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	170	112	586	796	-	-	1080	-	-
Stage 1	478	428	-	-	-	-	-	-	-
Stage 2	545	381	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	134	0	586	796	-	-	1080	-	-
Mov Cap-2 Maneuver	134	0	-	-	-	-	-	-	-
Stage 1	377	0	-	-	-	-	-	-	-
Stage 2	544	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.7	2.1	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	796	-	-	134	1080	-	-
HCM Lane V/C Ratio	0.156	-	-	0.127	0.001	-	-
HCM Control Delay (s)	10.4	0	-	35.7	8.3	-	-
HCM Lane LOS	B	A	-	E	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1	0	0	1	2	15	351	0	0	0	0
Future Vol, veh/h	0	1	0	0	1	2	15	351	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	1	0	0	1	2	17	399	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	435	433	-	-	433	399	0	0	0
Stage 1	0	0	-	-	433	-	-	-	-
Stage 2	435	433	-	-	0	-	-	-	-
Critical Hdwy	7.13	6.53	-	-	6.53	6.23	4.13	-	-
Critical Hdwy Stg 1	-	-	-	-	5.53	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	-	-	4.027	3.327	2.227	-	-
Pot Cap-1 Maneuver	530	514	0	0	514	649	-	-	-
Stage 1	-	-	0	0	580	-	-	-	-
Stage 2	598	580	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	527	514	-	-	514	649	-	-	-
Mov Cap-2 Maneuver	527	514	-	-	514	-	-	-	-
Stage 1	-	-	-	-	580	-	-	-	-
Stage 2	595	580	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	12	11.1	
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	514	597
HCM Lane V/C Ratio	-	-	-	0.002	0.006
HCM Control Delay (s)	-	-	-	12	11.1
HCM Lane LOS	-	-	-	B	B
HCM 95th %tile Q(veh)	-	-	-	0	0

Intersection	
Int Delay, s/veh	605.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	487	471	422	349	230	246
Future Vol, veh/h	487	471	422	349	230	246
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	25	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	553	535	480	397	261	280

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1480	678	0	0	876	0
Stage 1	678	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Critical Hdwy	6.41	6.21	-	-	4.11	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	-	-	2.209	-
Pot Cap-1 Maneuver	~ 139	~ 454	-	-	775	-
Stage 1	~ 506	-	-	-	-	-
Stage 2	~ 443	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 84	~ 454	-	-	775	-
Mov Cap-2 Maneuver	~ 84	-	-	-	-	-
Stage 1	~ 506	-	-	-	-	-
Stage 2	~ 266	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1391.5	0	5.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	84	454	775	-
HCM Lane V/C Ratio	-	-	6.588	1.179	0.337	-
HCM Control Delay (s)	-	-	$ 2612.1	129.5	12	0
HCM Lane LOS	-	-	F	F	B	A
HCM 95th %tile Q(veh)	-	-	62	20.1	1.5	-

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

Intersection: 1: US 101 SB On/US 101 NB Off & Kenmar Road

Movement	EB	WB	SB
Directions Served	TR	LT	LTR
Maximum Queue (ft)	130	4	251
Average Queue (ft)	59	0	134
95th Queue (ft)	102	2	238
Link Distance (ft)	191	222	214
Upstream Blk Time (%)			8
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: US 101 NB Off/US 101 NB One & Kenmar Road/Kenmar Drive

Movement	EB	WB	NB
Directions Served	LT	TR	LTR
Maximum Queue (ft)	178	271	307
Average Queue (ft)	49	69	83
95th Queue (ft)	162	225	231
Link Distance (ft)	222	248	302
Upstream Blk Time (%)	1	1	2
Queuing Penalty (veh)	4	12	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Atterberry lane/Eel River Drive & Kenmar Drive

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	318	594	313
Average Queue (ft)	86	106	141
95th Queue (ft)	317	411	322
Link Distance (ft)	248	513	346
Upstream Blk Time (%)	8	3	5
Queuing Penalty (veh)	55	30	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Riverwalk Drive & US 101 SB On & US 101 SB Off

Movement	EB	NB	SB
Directions Served	TR	LTR	LTR
Maximum Queue (ft)	101	72	209
Average Queue (ft)	40	44	71
95th Queue (ft)	75	62	146
Link Distance (ft)	343	40	310
Upstream Blk Time (%)		7	
Queuing Penalty (veh)		19	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Riverwalk Drive/12th Street & US 101 NB On

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	36	152	29
Average Queue (ft)	12	34	2
95th Queue (ft)	37	98	13
Link Distance (ft)	52	591	169
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: US 101 NB Off/12th Street & Pond Street

Movement	EB	WB	NB
Directions Served	LT	TR	LTR
Maximum Queue (ft)	6	23	56
Average Queue (ft)	0	2	2
95th Queue (ft)	3	12	25
Link Distance (ft)	52	163	255
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: 12th Street & Newburg Road

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	LT
Maximum Queue (ft)	875	12	151	578
Average Queue (ft)	857	1	36	519
95th Queue (ft)	870	11	101	657
Link Distance (ft)	855		182	529
Upstream Blk Time (%)	100		0	79
Queuing Penalty (veh)	0		1	0
Storage Bay Dist (ft)		25		
Storage Blk Time (%)	100	0		
Queuing Penalty (veh)	470	1		

Zone Summary

Zone wide Queuing Penalty: 590

Intersection	
Int Delay, s/veh	694.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	450	55	410	350	0	0	0	0	595	0	75
Future Vol, veh/h	0	450	55	410	350	0	0	0	0	595	0	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	474	58	432	368	0	0	0	0	626	0	79

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	1232	1232	368
Stage 1	-	-	-	1232	1232	-
Stage 2	-	-	-	0	0	-
Critical Hdwy	4.12	-	-	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	-	0	~ 154	177	677
Stage 1	-	-	0	~ 217	249	-
Stage 2	-	-	0	-	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	-	-	-	~ 154	177	677
Mov Cap-2 Maneuver	-	-	-	~ 154	177	-
Stage 1	-	-	-	~ 217	249	-
Stage 2	-	-	-	-	-	-

Approach	WB	SB
HCM Control Delay, s		$ 1481.7
HCM LOS		F

Minor Lane/Major Mvmt	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	169
HCM Lane V/C Ratio	-	-	4.173
HCM Control Delay (s)	-	-	$ 1481.7
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	70.8

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

Intersection	
Int Delay, s/veh	23.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	85	960	0	0	705	455	50	0	310	0	0	0
Future Vol, veh/h	85	960	0	0	705	455	50	0	310	0	0	0
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	-	-	Free	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	1011	0	0	742	479	53	0	326	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	742	0	-	-	-	0	1931	1931	1011
Stage 1	-	-	-	-	-	-	1189	1189	-
Stage 2	-	-	-	-	-	-	742	742	-
Critical Hdwy	4.12	-	-	-	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	-	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	865	-	0	0	-	0	73	66	~ 291
Stage 1	-	-	0	0	-	0	289	261	-
Stage 2	-	-	0	0	-	0	471	422	-
Platoon blocked, %		-			-				
Mov Cap-1 Maneuver	865	-	-	-	-	-	56	0	~ 291
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	0	-
Stage 1	-	-	-	-	-	-	221	0	-
Stage 2	-	-	-	-	-	-	471	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.8	0	136.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT
Capacity (veh/h)	326	865	-	-
HCM Lane V/C Ratio	1.162	0.103	-	-
HCM Control Delay (s)	136.9	9.6	0	-
HCM Lane LOS	F	A	A	-
HCM 95th %tile Q(veh)	15.7	0.3	-	-

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

Intersection	
Int Delay, s/veh	13.1

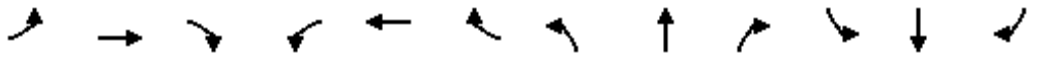
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	1225	45	10	1130	0	30	0	15	0	0	0
Future Vol, veh/h	0	1225	45	10	1130	0	30	0	15	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1289	47	11	1189	0	32	0	16	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1189	0	0	1337	0	0	2524	2524	1313	2532	2548	1189
Stage 1	-	-	-	-	-	-	1313	1313	-	1211	1211	-
Stage 2	-	-	-	-	-	-	1211	1211	-	1321	1337	-
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	587	-	-	516	-	-	~ 19	28	194	18	27	229
Stage 1	-	-	-	-	-	-	195	228	-	223	255	-
Stage 2	-	-	-	-	-	-	223	255	-	193	222	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	587	-	-	516	-	-	~ 18	26	194	16	25	229
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 18	26	-	16	25	-
Stage 1	-	-	-	-	-	-	195	228	-	223	239	-
Stage 2	-	-	-	-	-	-	209	239	-	177	222	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	$ 712.7	0
HCM LOS			F	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	26	587	-	-	516	-	-	-
HCM Lane V/C Ratio	1.822	-	-	-	0.02	-	-	-
HCM Control Delay (s)	$ 712.7	0	-	-	12.1	0	-	0
HCM Lane LOS	F	A	-	-	B	A	-	A
HCM 95th %tile Q(veh)	5.8	0	-	-	0.1	-	-	-

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	215	535	5	140	145	385	335	15	170	425	615
Future Volume (veh/h)	495	215	535	5	140	145	385	335	15	170	425	615
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	500	217	540	5	141	146	389	338	15	172	429	0
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	128	371	8	226	199	404	1159	51	125	631	0
Arrive On Green	0.23	0.23	0.23	0.13	0.13	0.13	0.23	0.34	0.34	0.07	0.18	0.00
Sat Flow, veh/h	1255	545	1583	64	1796	1583	1774	3453	153	1774	3632	0
Grp Volume(v), veh/h	717	0	540	146	0	146	389	173	180	172	429	0
Grp Sat Flow(s),veh/h/ln	1800	0	1583	1860	0	1583	1774	1770	1836	1774	1770	0
Q Serve(g_s), s	18.0	0.0	18.0	5.7	0.0	6.8	16.7	5.5	5.6	5.4	8.7	0.0
Cycle Q Clear(g_c), s	18.0	0.0	18.0	5.7	0.0	6.8	16.7	5.5	5.6	5.4	8.7	0.0
Prop In Lane	0.70		1.00	0.03		1.00	1.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	422	0	371	234	0	199	404	594	616	125	631	0
V/C Ratio(X)	1.70	0.00	1.46	0.62	0.00	0.73	0.96	0.29	0.29	1.38	0.68	0.00
Avail Cap(c_a), veh/h	422	0	371	436	0	371	404	705	731	125	852	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	0.0	29.4	31.9	0.0	32.4	29.4	18.8	18.8	35.7	29.5	0.0
Incr Delay (d2), s/veh	325.4	0.0	219.7	2.7	0.0	5.2	35.1	0.3	0.3	213.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	46.9	0.0	30.4	3.1	0.0	3.3	12.0	2.7	2.8	10.0	4.3	0.0
LnGrp Delay(d),s/veh	354.8	0.0	249.2	34.6	0.0	37.5	64.5	19.1	19.1	248.7	30.9	0.0
LnGrp LOS	F		F	C		D	E	B	B	F	C	
Approach Vol, veh/h		1257			292			742			601	
Approach Delay, s/veh		309.4			36.1			42.9			93.2	
Approach LOS		F			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.9	30.3		22.5	22.0	18.2		14.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.4	30.6		18.0	17.5	18.5		18.0
Max Q Clear Time (g_c+I1), s	7.4	7.6		20.0	18.7	10.7		8.8
Green Ext Time (p_c), s	0.0	5.2		0.0	0.0	3.0		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		168.5
HCM 2010 LOS		F

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	6	0	459	353	6
Future Vol, veh/h	0	6	0	459	353	6
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	6	0	483	372	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	858	375	378	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	671	1180	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	327	671	1180	-	-	-
Mov Cap-2 Maneuver	327	-	-	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	620	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1180	-	671	-	-
HCM Lane V/C Ratio	-	-	0.009	-	-
HCM Control Delay (s)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	79	43	17	442	316	47
Future Vol, veh/h	79	43	17	442	316	47
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	45	18	465	333	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	858	357	382	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	327	687	1176	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	320	687	1176	-	-	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1176	-	394	-	-
HCM Lane V/C Ratio	0.015	-	0.326	-	-
HCM Control Delay (s)	8.1	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	1.4	-	-

Intersection	
Intersection Delay, s/veh	65.1
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	301	216	0	0	0	0	0	496	0	25
Future Vol, veh/h	0	0	301	216	0	0	0	0	0	496	0	25
Peak Hour Factor	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	317	227	0	0	0	0	0	522	0	26
Number of Lanes	0	0	1	0	0	0	0	0	0	1	0	0

Approach	EB	NB
Opposing Approach		SB
Opposing Lanes	0	1
Conflicting Approach Left	SB	EB
Conflicting Lanes Left	1	1
Conflicting Approach Right	NB	
Conflicting Lanes Right	1	0
HCM Control Delay	65	67.1
HCM LOS	F	F

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	95%	0%	0%
Vol Thru, %	0%	58%	18%
Vol Right, %	5%	42%	82%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	521	517	831
LT Vol	496	0	0
Through Vol	0	301	147
RT Vol	25	216	684
Lane Flow Rate	548	544	875
Geometry Grp	1	1	1
Degree of Util (X)	1	1	1
Departure Headway (Hd)	7.193	6.781	6.537
Convergence, Y/N	Yes	Yes	Yes
Cap	510	539	560
Service Time	5.193	4.781	4.537
HCM Lane V/C Ratio	1.075	1.009	1.563
HCM Control Delay	67.1	65	63.8
HCM Lane LOS	F	F	F
HCM 95th-tile Q	13.7	14.1	14.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	147	684
Future Vol, veh/h	0	0	147	684
Peak Hour Factor	0.92	0.95	0.95	0.95
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	155	720
Number of Lanes	0	0	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	
Conflicting Lanes Left	0
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	63.8
HCM LOS	F

Lane

Intersection	
Int Delay, s/veh	11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	0	25	0	0	180	1006	1	2	492	484
Future Vol, veh/h	0	0	0	25	0	0	180	1006	1	2	492	484
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	26	0	0	189	1059	1	2	518	509

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	2215	2470	1059	1027	0	0	1060	0	0
Stage 1	1438	1438	-	-	-	-	-	-	-
Stage 2	777	1032	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	48	30	273	676	-	-	657	-	-
Stage 1	219	198	-	-	-	-	-	-	-
Stage 2	453	310	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	~ 15	0	273	676	-	-	657	-	-
Mov Cap-2 Maneuver	~ 15	0	-	-	-	-	-	-	-
Stage 1	70	0	-	-	-	-	-	-	-
Stage 2	449	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 881.9	1.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	676	-	-	15	657	-	-
HCM Lane V/C Ratio	0.28	-	-	1.754	0.003	-	-
HCM Control Delay (s)	12.4	0	-	$ 881.9	10.5	-	-
HCM Lane LOS	B	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1.1	-	-	3.9	0	-	-

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	3	0	0	1	3	25	207	0	0	0	0
Future Vol, veh/h	0	3	0	0	1	3	25	207	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	0	0	1	3	26	218	0	0	0	0

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	273	271	-	-	271	218	0	0	0
Stage 1	0	0	-	-	271	-	-	-	-
Stage 2	273	271	-	-	0	-	-	-	-
Critical Hdwy	7.12	6.52	-	-	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	679	636	0	0	636	822	-	-	-
Stage 1	-	-	0	0	685	-	-	-	-
Stage 2	733	685	0	0	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	676	636	-	-	636	822	-	-	-
Mov Cap-2 Maneuver	676	636	-	-	636	-	-	-	-
Stage 1	-	-	-	-	685	-	-	-	-
Stage 2	729	685	-	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	10.7	9.7	
HCM LOS	B	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1
Capacity (veh/h)	-	-	-	636	766
HCM Lane V/C Ratio	-	-	-	0.005	0.005
HCM Control Delay (s)	-	-	-	10.7	9.7
HCM Lane LOS	-	-	-	B	A
HCM 95th %tile Q(veh)	-	-	-	0	0

Intersection	
Int Delay, s/veh	11.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	656	380	328	885	524	320
Future Vol, veh/h	656	380	328	885	524	320
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	25	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	691	400	345	932	552	337

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2251	811	0	0	1277	0
Stage 1	811	-	-	-	-	-
Stage 2	1440	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 46	~ 379	-	-	~ 544	-
Stage 1	~ 437	-	-	-	-	-
Stage 2	~ 218	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	~ 379	-	-	~ 544	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	~ 437	-	-	-	-	-
Stage 2	0	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s		0	43.3
HCM LOS	-		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	379	~ 544	-
HCM Lane V/C Ratio	-	-	-	1.055	1.014	-
HCM Control Delay (s)	-	-	-	95.3	69.8	0
HCM Lane LOS	-	-	-	F	F	A
HCM 95th %tile Q(veh)	-	-	-	13.6	14.9	-

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

Intersection: 1: US 101 SB On/US 101 NB Off & Kenmar Road

Movement	EB	WB	SB
Directions Served	TR	LT	LTR
Maximum Queue (ft)	236	76	258
Average Queue (ft)	211	3	232
95th Queue (ft)	227	45	247
Link Distance (ft)	191	222	214
Upstream Blk Time (%)	100		100
Queuing Penalty (veh)	0		0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: US 101 NB Off/US 101 NB One & Kenmar Road/Kenmar Drive

Movement	EB	WB	NB
Directions Served	LT	TR	LTR
Maximum Queue (ft)	245	225	358
Average Queue (ft)	149	42	315
95th Queue (ft)	296	148	381
Link Distance (ft)	222	248	302
Upstream Blk Time (%)	14	0	93
Queuing Penalty (veh)	144	1	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Atterberry lane/Eel River Drive & Kenmar Drive

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	401	404	336
Average Queue (ft)	298	61	177
95th Queue (ft)	510	316	380
Link Distance (ft)	248	512	346
Upstream Blk Time (%)	40	2	20
Queuing Penalty (veh)	512	21	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Riverwalk Drive & US 101 SB On & US 101 SB Off

Movement	EB	NB	SB
Directions Served	TR	LTR	LTR
Maximum Queue (ft)	57	114	364
Average Queue (ft)	16	64	331
95th Queue (ft)	39	96	350
Link Distance (ft)	343	40	310
Upstream Blk Time (%)		20	97
Queuing Penalty (veh)		105	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 8: Riverwalk Drive/12th Street & US 101 NB On

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	46	92	9
Average Queue (ft)	17	10	0
95th Queue (ft)	46	51	4
Link Distance (ft)	51	591	169
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: US 101 NB Off/12th Street & Pond Street

Movement	EB	WB	NB
Directions Served	LT	TR	LTR
Maximum Queue (ft)	15	31	174
Average Queue (ft)	1	4	21
95th Queue (ft)	7	20	110
Link Distance (ft)	51	95	255
Upstream Blk Time (%)			2
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

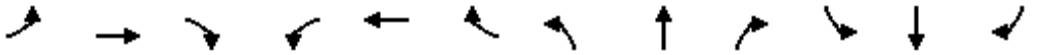
Intersection: 10: 12th Street & Newburg Road

Movement	WB	NB	SB
Directions Served	L	TR	LT
Maximum Queue (ft)	862	152	555
Average Queue (ft)	855	21	539
95th Queue (ft)	864	83	552
Link Distance (ft)	855	182	529
Upstream Blk Time (%)	100	0	100
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)	100		
Queuing Penalty (veh)	380		

Zone Summary

Zone wide Queuing Penalty: 1164

Cumulative Signal Alternative



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	150	40	240	230	0	0	0	0	305	5	35
Future Volume (veh/h)	0	150	40	240	230	0	0	0	0	305	5	35
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	1845	1845	0				1845	1845	1900
Adj Flow Rate, veh/h	0	158	42	253	242	0				359	0	0
Adj No. of Lanes	0	1	0	2	1	0				2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	220	58	1843	1390	0				468	246	0
Arrive On Green	0.00	0.16	0.16	0.90	1.00	0.00				0.13	0.00	0.00
Sat Flow, veh/h	0	1405	374	3408	1845	0				3514	1845	0
Grp Volume(v), veh/h	0	0	200	253	242	0				359	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1779	1704	1845	0				1757	1845	0
Q Serve(g_s), s	0.0	0.0	9.6	0.7	0.0	0.0				8.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	9.6	0.7	0.0	0.0				8.9	0.0	0.0
Prop In Lane	0.00		0.21	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	0	278	1843	1390	0				468	246	0
V/C Ratio(X)	0.00	0.00	0.72	0.14	0.17	0.00				0.77	0.00	0.00
Avail Cap(c_a), veh/h	0	0	579	1843	1390	0				996	523	0
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.99	0.99	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	36.1	2.0	0.0	0.0				37.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	3.5	0.0	0.3	0.0				2.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.0	0.4	0.1	0.0				4.5	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	39.6	2.1	0.3	0.0				40.3	0.0	0.0
LnGrp LOS			D	A	A					D		
Approach Vol, veh/h		200			495						359	
Approach Delay, s/veh		39.6			1.2						40.3	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			53.8	19.2		17.1		72.9
Change Period (Y+Rc), s			5.1	5.1		5.1		5.1
Max Green Setting (Gmax), s			19.9	29.3		25.5		47.7
Max Q Clear Time (g_c+I1), s			2.7	11.6		10.9		2.0
Green Ext Time (p_c), s			0.8	2.4		1.1		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	425	0	0	430	660	40	5	245	0	0	0
Future Volume (veh/h)	30	425	0	0	430	660	40	5	245	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1863	1863	0	0	1863	1863	1900	1863	1863			
Adj Flow Rate, veh/h	34	483	0	0	489	0	45	6	278			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	56	2428	0	0	2138	956	316	42	318			
Arrive On Green	0.03	0.69	0.00	0.00	1.00	0.00	0.20	0.20	0.20			
Sat Flow, veh/h	1774	3632	0	0	3632	1583	1574	210	1583			
Grp Volume(v), veh/h	34	483	0	0	489	0	51	0	278			
Grp Sat Flow(s),veh/h/ln	1774	1770	0	0	1770	1583	1784	0	1583			
Q Serve(g_s), s	1.7	4.5	0.0	0.0	0.0	0.0	2.1	0.0	15.3			
Cycle Q Clear(g_c), s	1.7	4.5	0.0	0.0	0.0	0.0	2.1	0.0	15.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.88		1.00			
Lane Grp Cap(c), veh/h	56	2428	0	0	2138	956	358	0	318			
V/C Ratio(X)	0.60	0.20	0.00	0.00	0.23	0.00	0.14	0.00	0.87			
Avail Cap(c_a), veh/h	187	2428	0	0	2138	956	494	0	438			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00			
Upstream Filter(I)	0.72	0.72	0.00	0.00	0.93	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	43.0	5.1	0.0	0.0	0.0	0.0	29.6	0.0	34.9			
Incr Delay (d2), s/veh	7.2	0.1	0.0	0.0	0.2	0.0	0.2	0.0	13.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.9	2.2	0.0	0.0	0.1	0.0	1.1	0.0	7.9			
LnGrp Delay(d),s/veh	50.3	5.3	0.0	0.0	0.2	0.0	29.8	0.0	48.5			
LnGrp LOS	D	A			A		C		D			
Approach Vol, veh/h		517			489			329				
Approach Delay, s/veh		8.2			0.2			45.6				
Approach LOS		A			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		23.2		66.8			7.4	59.5
Change Period (Y+Rc), s		5.1		5.1			4.5	5.1
Max Green Setting (Gmax), s		24.9		54.9			9.5	40.9
Max Q Clear Time (g_c+I1), s		17.3		6.5			3.7	2.0
Green Ext Time (p_c), s		0.8		8.2			0.0	8.0

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	650	20	15	1060	0	30	0	15	0	0	0
Future Volume (veh/h)	0	650	20	15	1060	0	30	0	15	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	0	739	23	17	1205	0	34	0	17	0	0	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	2	2744	85	34	3020	0	46	0	23	0	2	0
Arrive On Green	0.00	1.00	1.00	0.02	0.85	0.00	0.04	0.00	0.04	0.00	0.00	0.00
Sat Flow, veh/h	1774	3504	109	1774	3632	0	1137	0	569	0	1863	0
Grp Volume(v), veh/h	0	373	389	17	1205	0	51	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1844	1774	1770	0	1706	0	0	0	1863	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	6.8	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.9	6.8	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.00	0.67		0.33	0.00		0.00
Lane Grp Cap(c), veh/h	2	1386	1443	34	3020	0	68	0	0	0	2	0
V/C Ratio(X)	0.00	0.27	0.27	0.50	0.40	0.00	0.75	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	99	1386	1443	106	3020	0	104	0	0	0	103	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.95	0.95	0.43	0.43	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	43.7	1.5	0.0	42.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.4	4.8	0.2	0.0	14.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	0.2	0.5	3.3	0.0	1.5	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.5	0.4	48.5	1.6	0.0	57.6	0.0	0.0	0.0	0.0	0.0
LnGrp LOS		A	A	D	A		E					
Approach Vol, veh/h		762			1222			51			0	
Approach Delay, s/veh		0.4			2.3			57.6			0.0	
Approach LOS		A			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	75.6		0.0	0.0	81.9		8.1
Change Period (Y+Rc), s	4.6	5.1		4.5	4.5	* 5.1		4.5
Max Green Setting (Gmax), s	5.4	55.4		5.0	5.0	* 57		5.5
Max Q Clear Time (g_c+I1), s	2.9	2.0		0.0	0.0	8.8		4.7
Green Ext Time (p_c), s	0.0	23.7		0.0	0.0	22.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	3.0
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	75	305	25	230	242	485	415	10	55	245	360
Future Volume (veh/h)	280	75	305	25	230	242	485	415	10	55	245	360
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	318	85	347	28	261	275	551	472	11	62	278	409
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	413	436	672	119	337	286	654	1450	34	86	950	425
Arrive On Green	0.12	0.23	0.23	0.07	0.18	0.18	0.19	0.41	0.41	0.05	0.27	0.27
Sat Flow, veh/h	3442	1863	1583	1774	1863	1583	3442	3536	82	1774	3539	1583
Grp Volume(v), veh/h	318	85	347	28	261	275	551	236	247	62	278	409
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1774	1863	1583	1721	1770	1848	1774	1770	1583
Q Serve(g_s), s	6.7	2.7	12.1	1.1	10.0	10.2	11.6	6.8	6.8	2.6	4.7	12.8
Cycle Q Clear(g_c), s	6.7	2.7	12.1	1.1	10.0	10.2	11.6	6.8	6.8	2.6	4.7	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	413	436	672	119	337	286	654	726	758	86	950	425
V/C Ratio(X)	0.77	0.19	0.52	0.24	0.77	0.96	0.84	0.33	0.33	0.72	0.29	0.96
Avail Cap(c_a), veh/h	437	543	762	135	448	381	759	844	882	209	1324	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	23.0	15.9	33.1	29.2	19.2	29.2	15.0	15.0	35.1	21.7	12.2
Incr Delay (d2), s/veh	7.7	0.2	0.6	1.0	6.0	31.2	7.6	0.3	0.2	10.8	0.2	23.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.4	5.3	0.6	5.7	7.1	6.2	3.3	3.5	1.5	2.3	8.8
LnGrp Delay(d),s/veh	39.7	23.2	16.5	34.1	35.2	50.4	36.8	15.3	15.3	45.9	21.9	35.6
LnGrp LOS	D	C	B	C	D	D	D	B	B	D	C	D
Approach Vol, veh/h		750			564			1034			749	
Approach Delay, s/veh		27.1			42.5			26.7			31.4	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	35.2	9.5	22.0	18.7	24.6	13.5	18.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	3.6	35.7	5.7	21.8	16.5	28.0	9.5	18.0
Max Q Clear Time (g_c+I1), s	4.6	8.8	3.1	14.1	13.6	14.8	8.7	12.2
Green Ext Time (p_c), s	0.0	7.0	0.0	1.9	0.7	5.3	0.3	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	30.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	5	18	227	453	27
Future Vol, veh/h	30	5	18	227	453	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	34	6	20	258	515	31

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	700	530	545	0	-	0
Stage 1	530	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Critical Hdwy	6.735	6.335	4.235	-	-	-
Critical Hdwy Stg 1	5.535	-	-	-	-	-
Critical Hdwy Stg 2	5.935	-	-	-	-	-
Follow-up Hdwy	3.5855	3.3855	2.2855	-	-	-
Pot Cap-1 Maneuver	376	531	981	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	367	531	981	-	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-
Stage 1	572	-	-	-	-	-
Stage 2	805	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	981	-	384	-	-
HCM Lane V/C Ratio	0.021	-	0.104	-	-
HCM Control Delay (s)	8.7	0.1	15.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	0	153	0	0	0	0	238	19	11	327	0
Future Volume (veh/h)	291	0	153	0	0	0	0	238	19	11	327	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1792	1900				0	1792	1900	1792	1792	0
Adj Flow Rate, veh/h	252	110	174				0	270	22	12	372	0
Adj No. of Lanes	1	1	0				0	2	0	1	1	0
Peak Hour Factor	0.88	0.88	0.88				0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	6	6	6				0	6	6	6	6	0
Cap, veh/h	508	187	295				0	1154	93	587	648	0
Arrive On Green	0.30	0.30	0.30				0.00	0.36	0.36	0.36	0.36	0.00
Sat Flow, veh/h	1707	627	991				0	3281	258	1042	1792	0
Grp Volume(v), veh/h	252	0	284				0	143	149	12	372	0
Grp Sat Flow(s),veh/h/ln	1707	0	1618				0	1703	1747	1042	1792	0
Q Serve(g_s), s	3.2	0.0	4.0				0.0	1.5	1.6	0.2	4.4	0.0
Cycle Q Clear(g_c), s	3.2	0.0	4.0				0.0	1.5	1.6	1.8	4.4	0.0
Prop In Lane	1.00		0.61				0.00		0.15	1.00		0.00
Lane Grp Cap(c), veh/h	508	0	482				0	616	632	587	648	0
V/C Ratio(X)	0.50	0.00	0.59				0.00	0.23	0.24	0.02	0.57	0.00
Avail Cap(c_a), veh/h	1162	0	1102				0	1160	1190	920	1221	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.6	0.0	7.9				0.0	5.9	5.9	6.5	6.8	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.2				0.0	0.2	0.2	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.9				0.0	0.7	0.8	0.1	2.3	0.0
LnGrp Delay(d),s/veh	8.4	0.0	9.1				0.0	6.1	6.1	6.5	7.6	0.0
LnGrp LOS	A		A					A	A	A	A	
Approach Vol, veh/h		536						292			384	
Approach Delay, s/veh		8.7						6.1			7.6	
Approach LOS		A						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		14.1		12.4		14.1		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		18.0		18.0		18.0		
Max Q Clear Time (g_c+I1), s		3.6		6.0		6.4		
Green Ext Time (p_c), s		3.5		2.1		3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	7.7
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	15	0	351	109	420	0	0	323	410
Future Volume (veh/h)	0	0	0	15	0	351	109	420	0	0	323	410
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1845	1845	1845	1845	0	0	1845	1845
Adj Flow Rate, veh/h				17	0	399	124	477	0	0	367	466
Adj No. of Lanes				0	1	1	1	2	0	0	1	1
Peak Hour Factor				0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				503	0	449	198	2001	0	0	714	607
Arrive On Green				0.29	0.00	0.29	0.11	0.57	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1757	0	1568	1757	3597	0	0	1845	1568
Grp Volume(v), veh/h				17	0	399	124	477	0	0	367	466
Grp Sat Flow(s),veh/h/ln				1757	0	1568	1757	1752	0	0	1845	1568
Q Serve(g_s), s				0.4	0.0	15.4	4.2	4.3	0.0	0.0	9.6	16.3
Cycle Q Clear(g_c), s				0.4	0.0	15.4	4.2	4.3	0.0	0.0	9.6	16.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				503	0	449	198	2001	0	0	714	607
V/C Ratio(X)				0.03	0.00	0.89	0.63	0.24	0.00	0.00	0.51	0.77
Avail Cap(c_a), veh/h				613	0	547	376	2752	0	0	922	784
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.2	0.0	21.5	26.7	6.7	0.0	0.0	14.8	16.8
Incr Delay (d2), s/veh				0.0	0.0	14.4	3.3	0.1	0.0	0.0	0.6	3.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	8.4	2.2	2.1	0.0	0.0	5.0	7.6
LnGrp Delay(d),s/veh				16.2	0.0	35.9	30.0	6.8	0.0	0.0	15.4	20.3
LnGrp LOS				B		D	C	A			B	C
Approach Vol, veh/h					416			601			833	
Approach Delay, s/veh					35.1			11.6			18.1	
Approach LOS					D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		40.5			11.6	28.9		22.5
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		49.5			13.5	31.5		22.0
Max Q Clear Time (g_c+I1), s		6.3			6.2	18.3		17.4
Green Ext Time (p_c), s		9.2			0.2	6.1		0.7

Intersection Summary		
HCM 2010 Ctrl Delay		19.8
HCM 2010 LOS		B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	487	471	422	349	230	246
Future Volume (veh/h)	487	471	422	349	230	246
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1881	1881	1881	1881	1881	1881
Adj Flow Rate, veh/h	553	535	480	397	261	280
Adj No. of Lanes	2	1	1	1	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	1221	762	560	1038	435	932
Arrive On Green	0.35	0.35	0.30	0.30	0.13	0.50
Sat Flow, veh/h	3476	1599	1881	1599	3476	1881
Grp Volume(v), veh/h	553	535	480	397	261	280
Grp Sat Flow(s),veh/h/ln	1738	1599	1881	1599	1738	1881
Q Serve(g_s), s	7.8	16.7	15.2	7.3	4.5	5.6
Cycle Q Clear(g_c), s	7.8	16.7	15.2	7.3	4.5	5.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	1221	762	560	1038	435	932
V/C Ratio(X)	0.45	0.70	0.86	0.38	0.60	0.30
Avail Cap(c_a), veh/h	1670	968	592	1065	1121	1335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	13.0	21.0	5.2	26.2	9.5
Incr Delay (d2), s/veh	0.3	1.6	11.6	0.2	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	7.6	9.7	6.5	2.2	2.9
LnGrp Delay(d),s/veh	16.1	14.7	32.5	5.4	27.5	9.6
LnGrp LOS	B	B	C	A	C	A
Approach Vol, veh/h	1088		877			541
Approach Delay, s/veh	15.4		20.3			18.3
Approach LOS	B		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.5	23.9				36.4		26.8
Change Period (Y+Rc), s	4.6	5.1				5.1		4.6
Max Green Setting (Gmax), s	20.4	19.9				44.9		30.4
Max Q Clear Time (g_c+I1), s	16.5	17.2				7.6		18.7
Green Ext Time (p_c), s	0.7	1.6				7.5		3.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Intersection: 1: US 101 SB On/US 101 NB Off & Kenmar Road

Movement	EB	WB	WB	WB	SB	SB
Directions Served	TR	L	L	T	L	LTR
Maximum Queue (ft)	182	57	96	160	168	207
Average Queue (ft)	111	11	45	42	93	101
95th Queue (ft)	178	35	82	107	154	180
Link Distance (ft)	169		213	213		256
Upstream Blk Time (%)	2			0		0
Queuing Penalty (veh)	0			0		0
Storage Bay Dist (ft)		80			120	
Storage Blk Time (%)		0	1		4	5
Queuing Penalty (veh)		0	1		8	8

Intersection: 2: US 101 NB Off/US 101 NB One & Kenmar Road/Kenmar Drive

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	L	T	T	T	T	R	LT	R
Maximum Queue (ft)	122	145	137	97	112	204	80	109
Average Queue (ft)	24	55	44	26	32	11	28	45
95th Queue (ft)	67	120	103	67	83	84	64	81
Link Distance (ft)		213	213	236	236	236	289	
Upstream Blk Time (%)						0		
Queuing Penalty (veh)						0		
Storage Bay Dist (ft)	75							150
Storage Blk Time (%)	0	2						
Queuing Penalty (veh)	0	1						

Intersection: 3: Atterberry lane/Eel River Drive & Kenmar Drive

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	TR	LTR
Maximum Queue (ft)	147	149	36	112	184	85
Average Queue (ft)	31	25	10	13	40	32
95th Queue (ft)	104	87	30	60	131	67
Link Distance (ft)	236	236		498	498	322
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			75			
Storage Blk Time (%)	1		0	0		
Queuing Penalty (veh)	0		0	0		

Intersection: 7: Riverwalk Drive & US 101 SB On & US 101 SB Off

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LTR	T	TR	L	T
Maximum Queue (ft)	121	104	90	77	28	202
Average Queue (ft)	53	35	34	27	3	90
95th Queue (ft)	99	84	71	62	16	172
Link Distance (ft)	351	351	189	189		854
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					200	
Storage Blk Time (%)						0
Queuing Penalty (veh)						0

Intersection: 8: Riverwalk Drive/12th Street & US 101 NB On

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LT	R	L	T	T	T	R
Maximum Queue (ft)	124	209	140	161	151	237	195
Average Queue (ft)	19	87	52	56	49	109	87
95th Queue (ft)	121	185	105	134	115	204	160
Link Distance (ft)	408			854	854	251	251
Upstream Blk Time (%)	0					0	
Queuing Penalty (veh)	0					0	
Storage Bay Dist (ft)		250	150				
Storage Blk Time (%)	0	1		2			
Queuing Penalty (veh)	0	0		2			

Intersection: 10: 12th Street & Newburg Road

Movement	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	R	L	L	T
Maximum Queue (ft)	174	187	229	273	255	143	175	149
Average Queue (ft)	78	86	75	203	81	17	95	64
95th Queue (ft)	147	162	159	287	187	73	152	116
Link Distance (ft)		821		251	251			530
Upstream Blk Time (%)				6	1			
Queuing Penalty (veh)				21	3			
Storage Bay Dist (ft)	225		225			200	200	
Storage Blk Time (%)	0		0				0	0
Queuing Penalty (veh)	0		1				0	0

Zone Summary

Zone wide Queuing Penalty: 48

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	450	55	410	350	0	0	0	0	595	0	75
Future Volume (veh/h)	0	450	55	410	350	0	0	0	0	595	0	75
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1845	1900	1845	1845	0				1845	1845	1900
Adj Flow Rate, veh/h	0	474	58	432	368	0				700	0	0
Adj No. of Lanes	0	1	0	2	1	0				2	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	512	63	960	1209	0				812	426	0
Arrive On Green	0.00	0.32	0.32	0.47	1.00	0.00				0.23	0.00	0.00
Sat Flow, veh/h	0	1613	197	3408	1845	0				3514	1845	0
Grp Volume(v), veh/h	0	0	532	432	368	0				700	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1810	1704	1845	0				1757	1845	0
Q Serve(g_s), s	0.0	0.0	25.6	7.7	0.0	0.0				17.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	25.6	7.7	0.0	0.0				17.2	0.0	0.0
Prop In Lane	0.00		0.11	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	0	574	960	1209	0				812	426	0
V/C Ratio(X)	0.00	0.00	0.93	0.45	0.30	0.00				0.86	0.00	0.00
Avail Cap(c_a), veh/h	0	0	589	960	1209	0				996	523	0
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.93	0.93	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	29.7	19.1	0.0	0.0				33.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	20.6	0.3	0.6	0.0				6.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	16.0	3.6	0.2	0.0				9.1	0.0	0.0
LnGrp Delay(d),s/veh	0.0	0.0	50.4	19.5	0.6	0.0				39.9	0.0	0.0
LnGrp LOS			D	B	A					D		
Approach Vol, veh/h		532			800						700	
Approach Delay, s/veh		50.4			10.8						39.9	
Approach LOS		D			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs			3	4		6		8
Phs Duration (G+Y+Rc), s			30.5	33.7		25.9		64.1
Change Period (Y+Rc), s			5.1	5.1		5.1		5.1
Max Green Setting (Gmax), s			19.9	29.3		25.5		47.7
Max Q Clear Time (g_c+I1), s			9.7	27.6		19.2		2.0
Green Ext Time (p_c), s			1.2	1.0		1.6		7.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	960	0	0	705	455	50	0	310	0	0	0
Future Volume (veh/h)	85	960	0	0	705	455	50	0	310	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1845	0	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	89	1011	0	0	742	0	53	0	326			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	114	2297	0	0	1895	848	406	0	363			
Arrive On Green	0.06	0.66	0.00	0.00	1.00	0.00	0.23	0.00	0.23			
Sat Flow, veh/h	1757	3597	0	0	3597	1568	1757	0	1568			
Grp Volume(v), veh/h	89	1011	0	0	742	0	53	0	326			
Grp Sat Flow(s),veh/h/ln	1757	1752	0	0	1752	1568	1757	0	1568			
Q Serve(g_s), s	4.5	12.6	0.0	0.0	0.0	0.0	2.2	0.0	18.2			
Cycle Q Clear(g_c), s	4.5	12.6	0.0	0.0	0.0	0.0	2.2	0.0	18.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	114	2297	0	0	1895	848	406	0	363			
V/C Ratio(X)	0.78	0.44	0.00	0.00	0.39	0.00	0.13	0.00	0.90			
Avail Cap(c_a), veh/h	185	2297	0	0	1895	848	486	0	434			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00			
Upstream Filter(I)	0.34	0.34	0.00	0.00	0.93	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.5	7.5	0.0	0.0	0.0	0.0	27.4	0.0	33.6			
Incr Delay (d2), s/veh	4.0	0.2	0.0	0.0	0.6	0.0	0.1	0.0	19.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	6.1	0.0	0.0	0.1	0.0	1.1	0.0	9.8			
LnGrp Delay(d),s/veh	45.4	7.7	0.0	0.0	0.6	0.0	27.6	0.0	52.6			
LnGrp LOS	D	A			A		C		D			
Approach Vol, veh/h		1100			742			379				
Approach Delay, s/veh		10.8			0.6			49.1				
Approach LOS		B			A			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		25.9		64.1			10.3	53.8
Change Period (Y+Rc), s		5.1		5.1			4.5	5.1
Max Green Setting (Gmax), s		24.9		54.9			9.5	40.9
Max Q Clear Time (g_c+I1), s		20.2		14.6			6.5	2.0
Green Ext Time (p_c), s		0.7		18.5			0.0	18.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1225	45	10	1130	0	30	0	15	0	0	0
Future Volume (veh/h)	0	1225	45	10	1130	0	30	0	15	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900	1845	1845	1900	1900	1845	1900	1900	1845	1900
Adj Flow Rate, veh/h	0	1289	47	11	1189	0	32	0	16	0	0	0
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
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
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	2	1421	52	687	3014	0	44	0	22	0	2	0
Arrive On Green	0.00	0.82	0.82	0.39	0.86	0.00	0.04	0.00	0.04	0.00	0.00	0.00
Sat Flow, veh/h	1757	3449	126	1757	3597	0	1126	0	563	0	1845	0
Grp Volume(v), veh/h	0	654	682	11	1189	0	48	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	1757	1752	1822	1757	1752	0	1689	0	0	0	1845	0
Q Serve(g_s), s	0.0	23.3	23.5	0.3	6.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	23.3	23.5	0.3	6.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0
Prop In Lane	1.00		0.07	1.00		0.00	0.67		0.33	0.00		0.00
Lane Grp Cap(c), veh/h	2	722	751	687	3014	0	66	0	0	0	2	0
V/C Ratio(X)	0.00	0.91	0.91	0.02	0.39	0.00	0.73	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	98	1079	1122	687	3014	0	103	0	0	0	102	0
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.85	0.85	0.54	0.54	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.7	6.7	16.8	1.3	0.0	42.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	15.1	14.8	0.0	0.2	0.0	14.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.2	13.7	0.2	3.1	0.0	1.5	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	0.0	21.8	21.5	16.8	1.5	0.0	57.3	0.0	0.0	0.0	0.0	0.0
LnGrp LOS		C	C	B	A		E					
Approach Vol, veh/h		1336			1200			48			0	
Approach Delay, s/veh		21.6			1.7			57.3			0.0	
Approach LOS		C			A			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	39.8	42.2		0.0	0.0	82.0		8.0
Change Period (Y+Rc), s	4.6	5.1		4.5	4.5	* 4.6		4.5
Max Green Setting (Gmax), s	5.4	55.4		5.0	5.0	* 57		5.5
Max Q Clear Time (g_c+I1), s	2.3	25.5		0.0	0.0	8.5		4.5
Green Ext Time (p_c), s	2.1	11.6		0.0	0.0	12.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	495	215	535	5	140	145	385	335	15	170	425	615
Future Volume (veh/h)	495	215	535	5	140	145	385	335	15	170	425	615
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845	1845	1845	1900	1845	1845	1845
Adj Flow Rate, veh/h	500	217	540	5	141	146	389	338	15	172	429	621
Adj No. of Lanes	2	1	1	1	1	1	2	2	0	1	2	1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	865	548	695	125	212	180	498	868	38	214	804	757
Arrive On Green	0.25	0.30	0.30	0.07	0.11	0.11	0.15	0.25	0.25	0.12	0.23	0.23
Sat Flow, veh/h	3408	1845	1568	1757	1845	1568	3408	3419	151	1757	3505	1568
Grp Volume(v), veh/h	500	217	540	5	141	146	389	173	180	172	429	621
Grp Sat Flow(s),veh/h/ln	1704	1845	1568	1757	1845	1568	1704	1752	1818	1757	1752	1568
Q Serve(g_s), s	9.0	6.6	20.6	0.2	5.2	4.6	7.7	5.7	5.8	6.7	7.6	9.7
Cycle Q Clear(g_c), s	9.0	6.6	20.6	0.2	5.2	4.6	7.7	5.7	5.8	6.7	7.6	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	865	548	695	125	212	180	498	445	462	214	804	757
V/C Ratio(X)	0.58	0.40	0.78	0.04	0.67	0.81	0.78	0.39	0.39	0.81	0.53	0.82
Avail Cap(c_a), veh/h	1013	548	695	450	472	401	659	511	530	315	972	833
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	19.7	16.6	30.4	29.8	15.7	28.9	21.7	21.7	30.1	23.8	4.4
Incr Delay (d2), s/veh	0.6	0.5	5.5	0.1	3.6	8.5	4.4	0.6	0.5	9.1	0.6	6.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.4	9.9	0.1	2.8	2.9	3.9	2.9	3.0	3.8	3.7	5.4
LnGrp Delay(d),s/veh	23.6	20.1	22.1	30.5	33.4	24.1	33.3	22.3	22.3	39.2	24.3	10.5
LnGrp LOS	C	C	C	C	C	C	C	C	C	D	C	B
Approach Vol, veh/h		1257			292			742			1222	
Approach Delay, s/veh		22.4			28.7			28.1			19.4	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.3	9.5	25.4	14.8	20.6	22.3	12.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.6	20.5	18.0	20.9	13.6	19.5	20.9	18.0
Max Q Clear Time (g_c+I1), s	8.7	7.8	2.2	22.6	9.7	11.7	11.0	7.2
Green Ext Time (p_c), s	0.2	6.1	0.0	0.0	0.5	4.4	4.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	79	49	17	442	310	53
Future Vol, veh/h	79	49	17	442	310	53
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	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	83	52	18	465	326	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	622	354	382	0	-	0
Stage 1	354	-	-	-	-	-
Stage 2	268	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	432	686	1168	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	423	686	1168	-	-	-
Mov Cap-2 Maneuver	423	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	735	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1168	-	496	-	-
HCM Lane V/C Ratio	0.015	-	0.272	-	-
HCM Control Delay (s)	8.1	0.1	14.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	684	0	147	0	0	0	0	496	25	301	216	0
Future Volume (veh/h)	684	0	147	0	0	0	0	496	25	301	216	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1900				0	1845	1900	1845	1845	0
Adj Flow Rate, veh/h	865	0	0				0	522	26	317	227	0
Adj No. of Lanes	2	1	0				0	2	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	1450	761	0				0	753	37	354	874	0
Arrive On Green	0.41	0.00	0.00				0.00	0.22	0.22	0.07	0.16	0.00
Sat Flow, veh/h	3514	1845	0				0	3491	169	1757	1845	0
Grp Volume(v), veh/h	865	0	0				0	269	279	317	227	0
Grp Sat Flow(s),veh/h/ln	1757	1845	0				0	1752	1815	1757	1845	0
Q Serve(g_s), s	17.3	0.0	0.0				0.0	12.7	12.7	16.1	9.7	0.0
Cycle Q Clear(g_c), s	17.3	0.0	0.0				0.0	12.7	12.7	16.1	9.7	0.0
Prop In Lane	1.00		0.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	1450	761	0				0	388	402	354	874	0
V/C Ratio(X)	0.60	0.00	0.00				0.00	0.69	0.69	0.90	0.26	0.00
Avail Cap(c_a), veh/h	1450	761	0				0	543	563	359	1043	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.87	0.87	0.00
Uniform Delay (d), s/veh	20.6	0.0	0.0				0.0	32.2	32.2	41.1	24.1	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	3.1	3.1	20.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	0.0	0.0				0.0	6.5	6.7	9.9	5.0	0.0
LnGrp Delay(d),s/veh	22.4	0.0	0.0				0.0	35.4	35.3	61.7	24.3	0.0
LnGrp LOS	C							D	D	E	C	
Approach Vol, veh/h		865						548			544	
Approach Delay, s/veh		22.4						35.3			46.1	
Approach LOS		C						D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	22.7	25.0		42.2		47.8		
Change Period (Y+Rc), s	4.6	5.1		5.1		5.1		
Max Green Setting (Gmax), s	18.4	27.9		28.9		50.9		
Max Q Clear Time (g_c+I1), s	18.1	14.7		19.3		11.7		
Green Ext Time (p_c), s	0.0	5.2		3.7		8.0		

Intersection Summary			
HCM 2010 Ctrl Delay		32.6	
HCM 2010 LOS		C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	25	0	207	180	1006	0	0	492	484
Future Volume (veh/h)	0	0	0	25	0	207	180	1006	0	0	492	484
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1900	1845	1845	1845	1845	0	0	1845	1845
Adj Flow Rate, veh/h				0	0	246	189	1059	0	0	518	509
Adj No. of Lanes				0	1	2	1	2	0	0	1	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				0	205	348	688	2766	0	0	641	544
Arrive On Green				0.00	0.00	0.11	0.26	0.53	0.00	0.00	0.69	0.69
Sat Flow, veh/h				0	1845	3136	1757	3597	0	0	1845	1568
Grp Volume(v), veh/h				0	0	246	189	1059	0	0	518	509
Grp Sat Flow(s),veh/h/ln				0	1845	1568	1757	1752	0	0	1845	1568
Q Serve(g_s), s				0.0	0.0	6.8	7.7	16.1	0.0	0.0	17.6	25.5
Cycle Q Clear(g_c), s				0.0	0.0	6.8	7.7	16.1	0.0	0.0	17.6	25.5
Prop In Lane				0.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				0	205	348	688	2766	0	0	641	544
V/C Ratio(X)				0.00	0.00	0.71	0.27	0.38	0.00	0.00	0.81	0.93
Avail Cap(c_a), veh/h				0	451	767	688	2766	0	0	758	645
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				0.00	0.00	1.00	0.69	0.69	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh				0.0	0.0	38.6	23.0	8.3	0.0	0.0	11.7	12.9
Incr Delay (d2), s/veh				0.0	0.0	2.7	0.1	0.3	0.0	0.0	9.4	23.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.0	0.0	3.1	3.8	7.8	0.0	0.0	10.3	14.0
LnGrp Delay(d),s/veh				0.0	0.0	41.3	23.2	8.5	0.0	0.0	21.0	36.1
LnGrp LOS						D	C	A			C	D
Approach Vol, veh/h					246			1248			1027	
Approach Delay, s/veh					41.3			10.8			28.5	
Approach LOS					D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		75.5			39.8	35.8		14.5
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		59.0			17.5	37.0		22.0
Max Q Clear Time (g_c+I1), s		18.1			9.7	27.5		8.8
Green Ext Time (p_c), s		10.8			4.6	3.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	656	380	328	885	524	320
Future Volume (veh/h)	656	380	328	885	524	320
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1845	1845	1845	1845	1845	1845
Adj Flow Rate, veh/h	691	400	345	932	552	337
Adj No. of Lanes	2	1	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	858	691	739	1022	644	1182
Arrive On Green	0.25	0.25	0.53	0.53	0.19	0.64
Sat Flow, veh/h	3408	1568	1845	1568	3408	1845
Grp Volume(v), veh/h	691	400	345	932	552	337
Grp Sat Flow(s),veh/h/ln	1704	1568	1845	1568	1704	1845
Q Serve(g_s), s	17.1	17.2	10.5	36.0	14.1	7.2
Cycle Q Clear(g_c), s	17.1	17.2	10.5	36.0	14.1	7.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	858	691	739	1022	644	1182
V/C Ratio(X)	0.81	0.58	0.47	0.91	0.86	0.29
Avail Cap(c_a), veh/h	1151	826	739	1022	773	1182
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	1.00	1.00
Uniform Delay (d), s/veh	31.6	18.9	15.1	9.1	35.3	7.1
Incr Delay (d2), s/veh	3.1	0.8	2.0	12.8	8.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	7.5	5.7	26.6	7.3	3.8
LnGrp Delay(d),s/veh	34.7	19.7	17.0	21.9	43.5	7.7
LnGrp LOS	C	B	B	C	D	A
Approach Vol, veh/h	1091		1277			889
Approach Delay, s/veh	29.2		20.6			29.9
Approach LOS	C		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.6	41.1				62.8		27.2
Change Period (Y+Rc), s	4.6	5.1				5.1		4.6
Max Green Setting (Gmax), s	20.4	24.9				44.9		30.4
Max Q Clear Time (g_c+I1), s	16.1	38.0				9.2		19.2
Green Ext Time (p_c), s	0.9	0.0				11.3		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Intersection: 1: US 101 SB On/US 101 NB Off & Kenmar Road

Movement	EB	WB	WB	WB	SB	SB
Directions Served	TR	L	L	T	L	LTR
Maximum Queue (ft)	342	140	225	220	273	296
Average Queue (ft)	275	87	111	103	173	170
95th Queue (ft)	373	155	187	199	261	259
Link Distance (ft)	303		214	214		446
Upstream Blk Time (%)	18		1	0		
Queuing Penalty (veh)	0		3	1		
Storage Bay Dist (ft)		80			275	
Storage Blk Time (%)		4	16		0	0
Queuing Penalty (veh)		9	32		0	1

Intersection: 2: US 101 NB Off/US 101 NB One & Kenmar Road/Kenmar Drive

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	L	T	T	T	T	R	LT	R
Maximum Queue (ft)	123	220	209	193	196	105	102	226
Average Queue (ft)	51	90	79	86	72	6	31	83
95th Queue (ft)	103	188	160	173	149	64	76	163
Link Distance (ft)		214	214	236	236		289	
Upstream Blk Time (%)		1	0		0			
Queuing Penalty (veh)		3	0		0			
Storage Bay Dist (ft)	75					150		150
Storage Blk Time (%)	3	5			1	0		2
Queuing Penalty (veh)	14	4			3	1		1

Intersection: 3: Atterberry lane/Eel River Drive & Kenmar Drive

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	TR	LTR
Maximum Queue (ft)	240	223	36	73	165	64
Average Queue (ft)	51	39	7	22	49	29
95th Queue (ft)	149	130	24	64	129	60
Link Distance (ft)	236	236		498	498	322
Upstream Blk Time (%)	0	0				
Queuing Penalty (veh)	2	1				
Storage Bay Dist (ft)			75			
Storage Blk Time (%)	1			0		
Queuing Penalty (veh)	0			0		

Intersection: 7: Riverwalk Drive/US 101 SB Off & US 101 SB Ramp

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LTR	T	TR	L	T
Maximum Queue (ft)	346	396	231	240	293	233
Average Queue (ft)	179	223	131	142	172	110
95th Queue (ft)	292	335	203	215	272	198
Link Distance (ft)	390	390	199	199		892
Upstream Blk Time (%)	0	1	1	1		
Queuing Penalty (veh)	0	0	2	3		
Storage Bay Dist (ft)					300	
Storage Blk Time (%)					1	
Queuing Penalty (veh)					2	

Intersection: 8: Riverwalk Drive/12th Street & US 101 NB Ramp

Movement	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	R	L	T	T	T	R
Maximum Queue (ft)	135	172	235	551	550	345	189
Average Queue (ft)	50	78	94	131	203	181	101
95th Queue (ft)	106	147	182	418	478	336	184
Link Distance (ft)	163	163		892	892	349	349
Upstream Blk Time (%)	1	1				0	
Queuing Penalty (veh)	0	0				2	
Storage Bay Dist (ft)			150				
Storage Blk Time (%)			1	1			
Queuing Penalty (veh)			6	2			

Intersection: 10: 12th Street & Newburg Road

Movement	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	R	L	L	T
Maximum Queue (ft)	268	275	205	364	403	283	330	355
Average Queue (ft)	126	125	54	191	320	188	240	127
95th Queue (ft)	216	212	139	314	429	291	338	296
Link Distance (ft)		820		349	349			530
Upstream Blk Time (%)				0	8			0
Queuing Penalty (veh)				2	49			0
Storage Bay Dist (ft)	225		225			250	250	
Storage Blk Time (%)	1	0	0			0	9	
Queuing Penalty (veh)	4	2	0			1	28	

Zone Summary

Zone wide Queuing Penalty: 180

Cumulative Roundabout Alternative

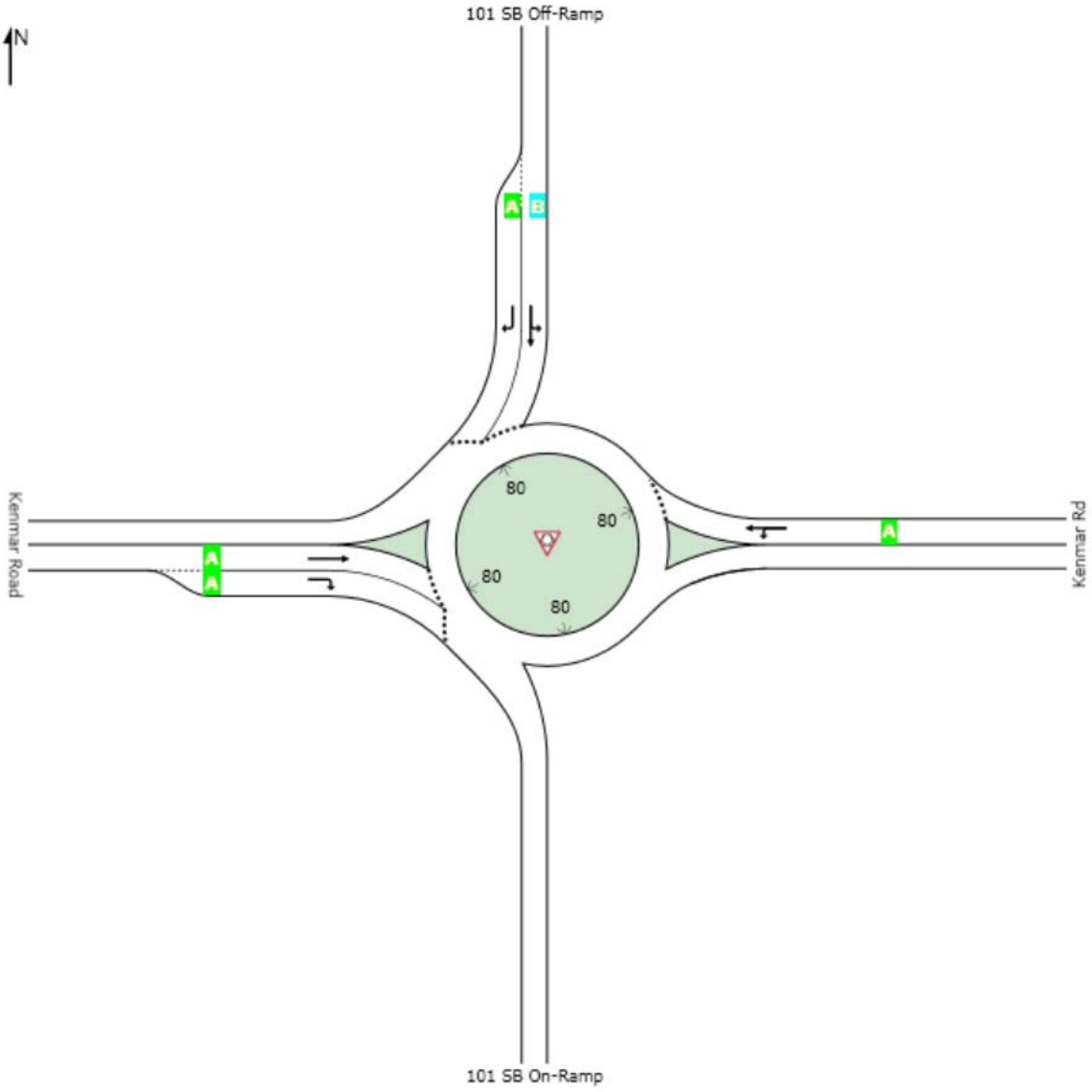
LEVEL OF SERVICE

Site: Kenmar Road/ SB Ramps

Kenmar Road Interchange Roundabout Concept - Option 1a, 1b, & 2
Cumulative AM
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	B	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/ SB Ramps

Kenmar Road Interchange Roundabout Concept - Option 1a, 1b, & 2
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Kenmar Rd													
Lane 1[d]	500	3.0	1377	0.363	100	6.9	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	500	3.0		0.363		6.9	LOS A	0.0	0.0				
North: 101 SB Off-Ramp													
Lane 1[d]	326	3.0	1196	0.273	100	11.7	LOS B	1.6	40.9	Full	1600	0.0	0.0
Lane 2	37	3.0	786	0.047	100	7.4	LOS A	0.2	5.5	Short	200	0.0	NA
Approach	363	3.0		0.273		11.2	LOS B	1.6	40.9				
West: Kenmar Road													
Lane 1[d]	158	3.0	1073	0.147	100	6.7	LOS A	0.9	22.9	Full	1600	0.0	0.0
Lane 2	42	3.0	719	0.059	100	7.9	LOS A	0.3	7.6	Short	200	0.0	NA
Approach	200	3.0		0.147		7.0	LOS A	0.9	22.9				
Intersection	1063	3.0		0.363		8.4	LOS A	1.6	40.9				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

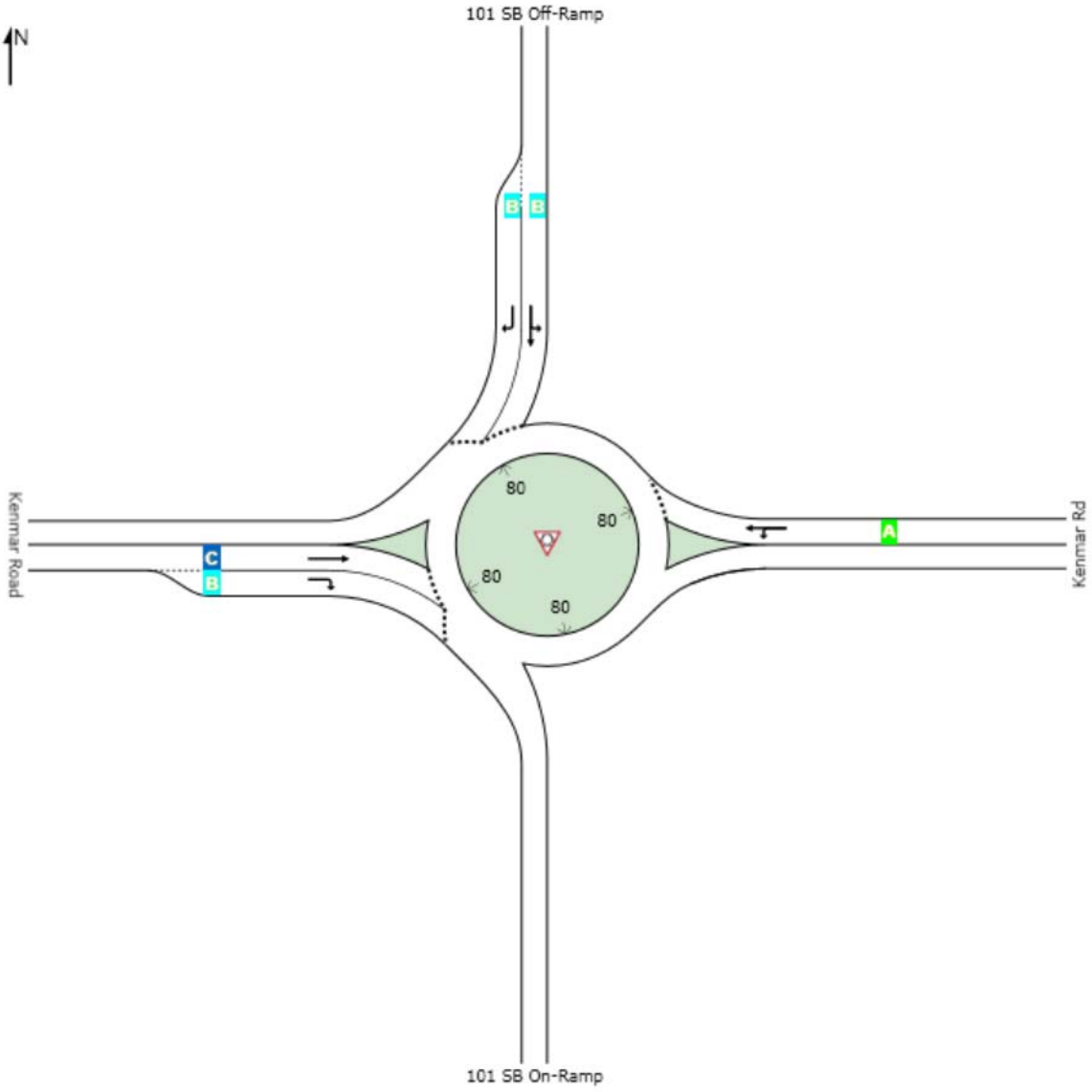
LEVEL OF SERVICE

Site: Kenmar Road/SB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative PM
Roundabout

All Movement Classes

	East	North	West	Intersection
LOS	A	B	C	B



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LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/SB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
East: Kenmar Rd													
Lane 1[d]	800	3.0	1377	0.581	100	7.1	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	800	3.0		0.581		7.1	LOS A	0.0	0.0				
North: 101 SB Off-Ramp													
Lane 1[d]	627	3.0	985	0.637	100	19.0	LOS B	7.3	187.2	Full	1600	0.0	0.0
Lane 2	79	3.0	661	0.119	100	10.2	LOS B	0.6	16.0	Short	200	0.0	NA
Approach	706	3.0		0.637		18.0	LOS B	7.3	187.2				
West: Kenmar Road													
Lane 1[d]	474	3.0	607	0.781	100	31.0	LOS C	12.7	324.1	Full	1600	0.0	0.0
Lane 2	58	3.0	422	0.137	100	14.0	LOS B	0.9	23.0	Short	200	0.0	NA
Approach	532	3.0		0.781		29.2	LOS C	12.7	324.1				
Intersection	2038	3.0		0.781		16.6	LOS B	12.7	324.1				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

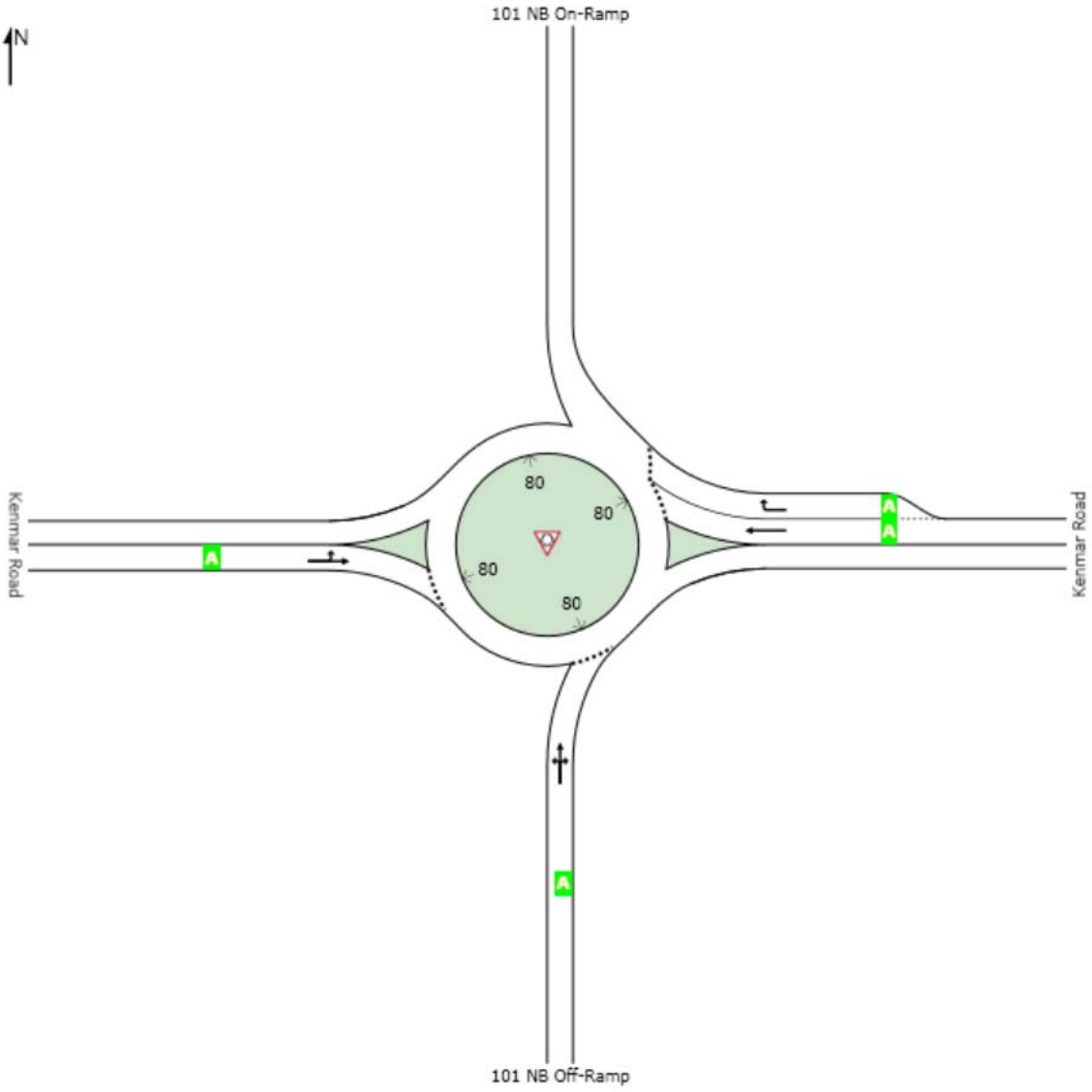
LEVEL OF SERVICE

Site: Kenmar Road/ NB Ramps

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative AM
Roundabout

All Movement Classes

	South	East	West	Intersection
LOS	A	A	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
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Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/ NB Ramps

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: 101 NB Off-Ramp													
Lane 1[d]	330	3.0	952	0.346	100	8.1	LOS A	2.0	51.6	Full	1600	0.0	0.0
Approach	330	3.0		0.346		8.1	LOS A	2.0	51.6				
East: Kenmar Road													
Lane 1	489	3.0	1276	0.383	100	4.8	LOS A	2.6	66.4	Full	1600	0.0	0.0
Lane 2[d]	750	3.0	1506	0.498	100	4.9	LOS A	4.0	102.4	Short	200	0.0	NA
Approach	1239	3.0		0.498		4.8	LOS A	4.0	102.4				
West: Kenmar Road													
Lane 1[d]	511	3.0	1377	0.371	100	4.6	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	511	3.0		0.371		4.6	LOS A	0.0	0.0				
Intersection	2080	3.0		0.498		5.3	LOS A	4.0	102.4				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

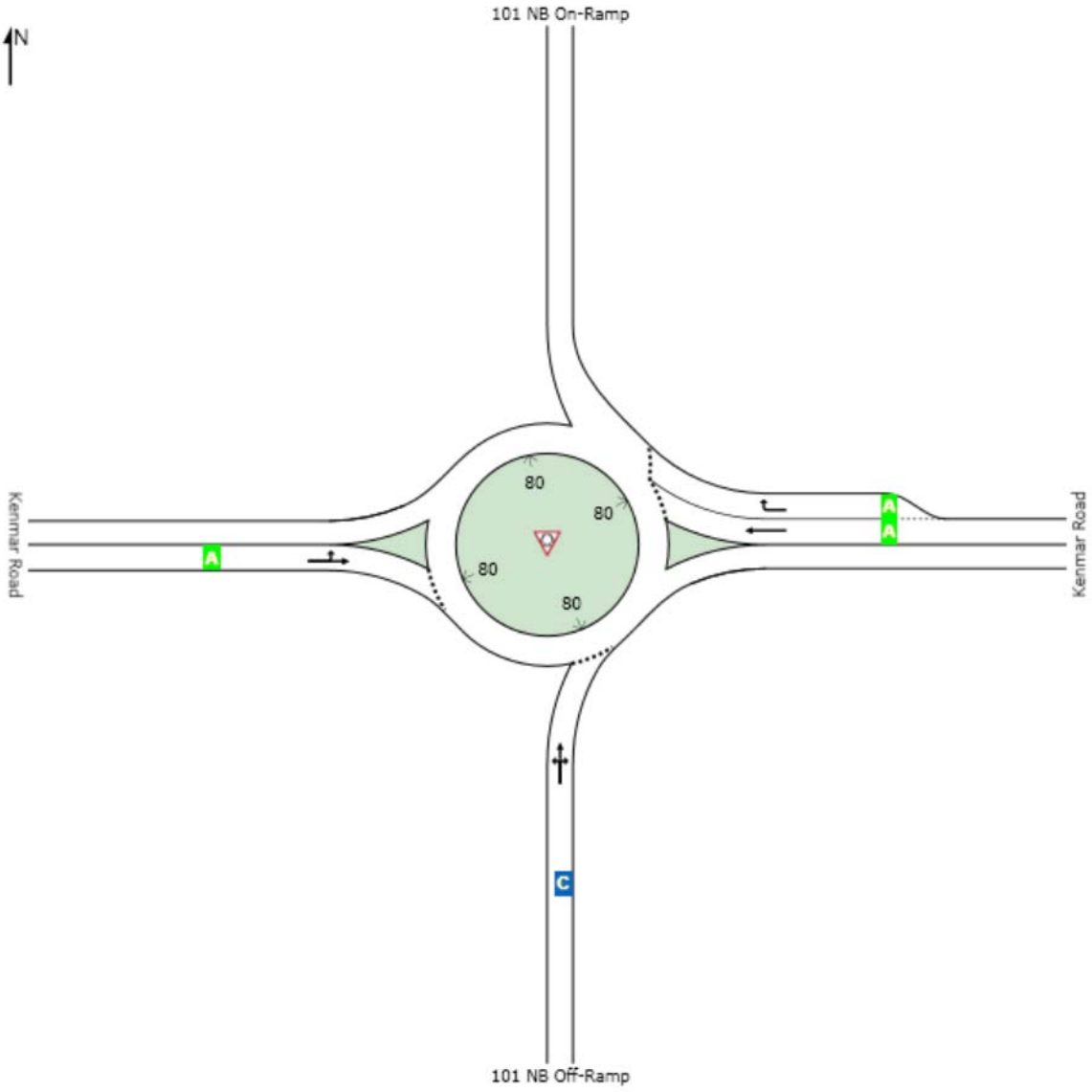
LEVEL OF SERVICE

Site: Kenmar Road/NB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative PM
Roundabout

All Movement Classes

	South	East	West	Intersection
LOS	C	A	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/NB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 1a & 1b
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: 101 NB Off-Ramp													
Lane 1[d]	380	3.0	569	0.668	100	28.8	LOS C	8.0	204.8	Full	1600	0.0	0.0
Approach	380	3.0		0.668		28.8	LOS C	8.0	204.8				
East: Kenmar Road													
Lane 1[d]	742	3.0	1445	0.514	100	5.1	LOS A	4.1	104.5	Full	1600	0.0	0.0
Lane 2	479	3.0	1210	0.396	100	5.3	LOS A	2.7	67.8	Short	200	0.0	NA
Approach	1221	3.0		0.514		5.2	LOS A	4.1	104.5				
West: Kenmar Road													
Lane 1[d]	1100	3.0	1377	0.799	100	4.7	LOS A	0.0	0.0	Full	1600	0.0	0.0
Approach	1100	3.0		0.799		4.7	LOS A	0.0	0.0				
Intersection	2701	3.0		0.799		8.3	LOS A	8.0	204.8				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

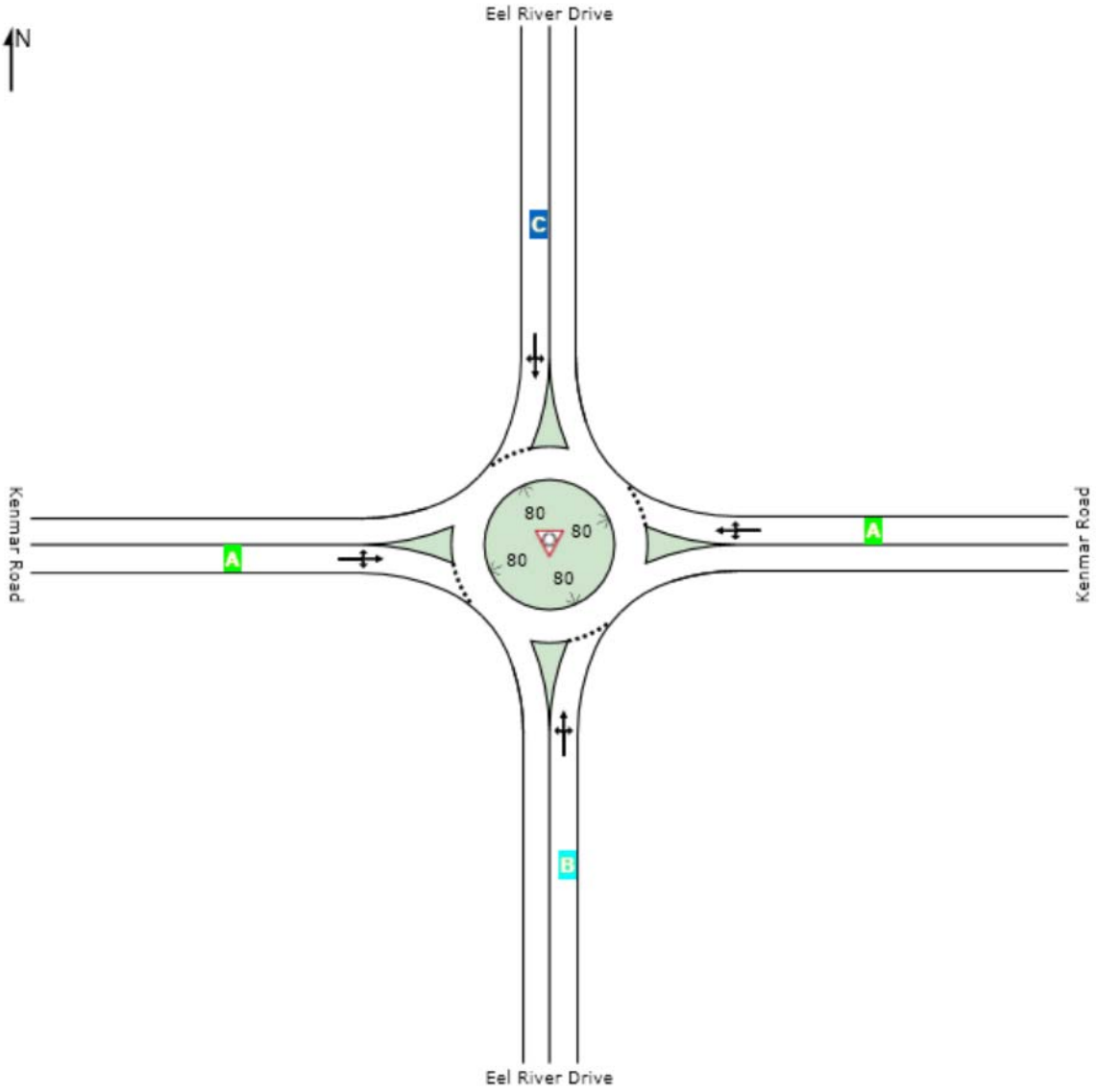
LEVEL OF SERVICE

Site: Kenmar Road/Eel River Drive AM

Kenmar Road Interchange Roundabout Concept - Option 1a
Cumulative AM
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	B	A	C	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/Eel River Drive AM

Kenmar Road Interchange Roundabout Concept - Option 1a
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Eel River Drive													
Lane 1[d]	52	3.0	763	0.069	100	11.8	LOS B	0.4	9.8	Full	1600	0.0	0.0
Approach	52	3.0		0.069		11.8	LOS B	0.4	9.8				
East: Kenmar Road													
Lane 1[d]	1223	3.0	1324	0.924	100	5.7	LOS A	33.2	848.7	Full	1600	0.0	0.0
Approach	1223	3.0		0.924		5.7	LOS A	33.2	848.7				
North: Eel River Drive													
Lane 1[d]	3	3.0	248	0.014	100	21.6	LOS C	0.1	2.6	Full	1600	0.0	0.0
Approach	3	3.0		0.014		21.6	LOS C	0.1	2.6				
West: Kenmar Road													
Lane 1[d]	762	3.0	1346	0.566	100	4.4	LOS A	6.2	157.9	Full	1600	0.0	0.0
Approach	762	3.0		0.566		4.4	LOS A	6.2	157.9				
Intersection	2041	3.0		0.924		5.4	LOS A	33.2	848.7				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

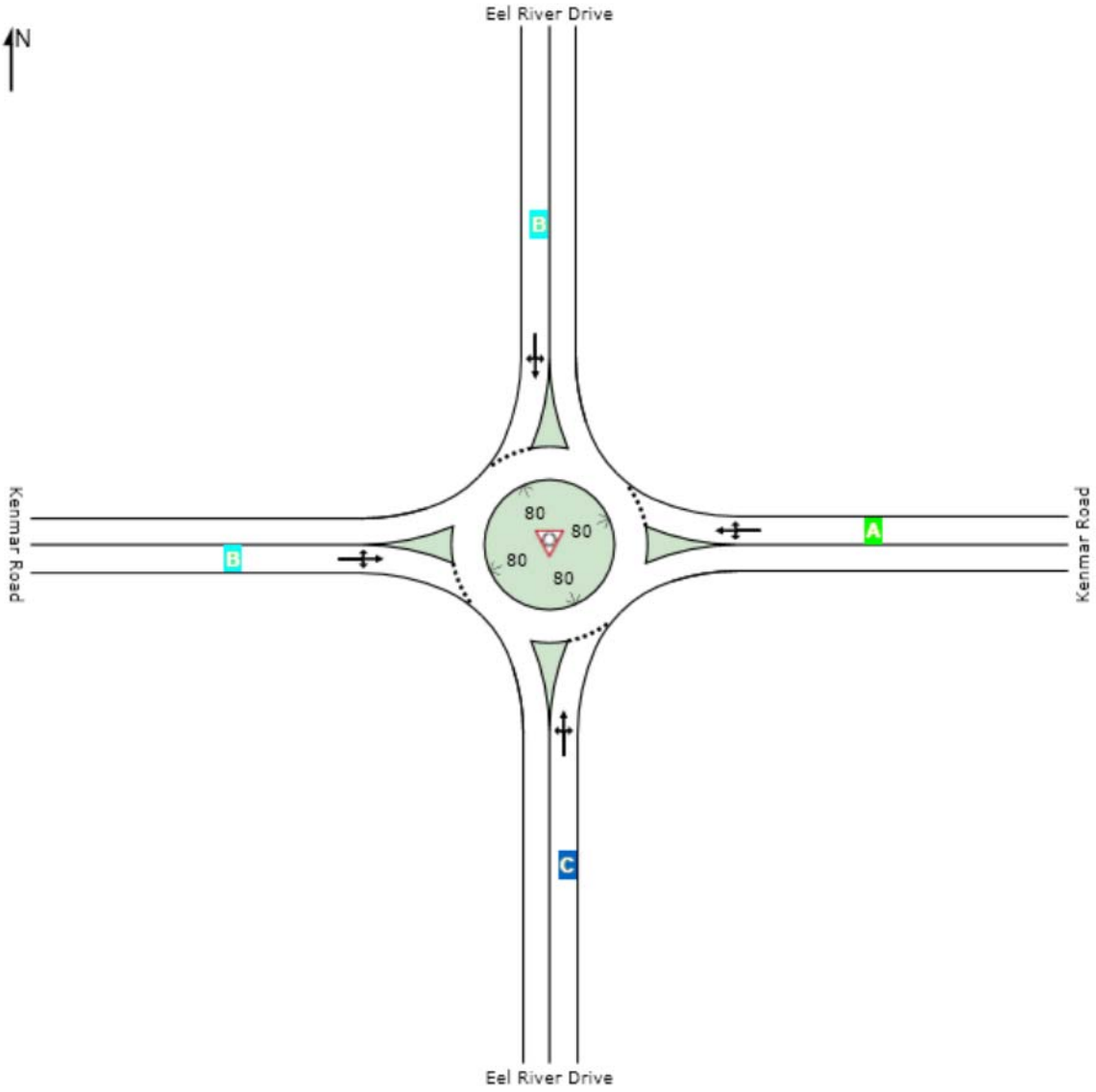
LEVEL OF SERVICE

Site: Kenmar Road/Eel River Drive PM

Kenmar Road Interchange Roundabout Concept - Option 1a
Cumulative PM
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	C	A	B	B	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/Eel River Drive PM

Kenmar Road Interchange Roundabout Concept - Option 1a
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Eel River Drive													
Lane 1[d]	48	3.0	216	0.225	100	26.8	LOS C	1.8	45.0	Full	1600	0.0	0.0
Approach	48	3.0		0.225		26.8	LOS C	1.8	45.0				
East: Kenmar Road													
Lane 1[d]	1201	3.0	1323	0.908	100	5.4	LOS A	31.4	803.7	Full	1600	0.0	0.0
Approach	1201	3.0		0.908		5.4	LOS A	31.4	803.7				
North: Eel River Drive													
Lane 1[d]	3	3.0	275	0.011	100	19.6	LOS B	0.1	2.2	Full	1600	0.0	0.0
Approach	3	3.0		0.011		19.6	LOS B	0.1	2.2				
West: Kenmar Road													
Lane 1[d]	1338	3.0	1358	0.986	100	10.2	LOS B	148.8	3810.3	Full	1600	0.0	45.4
Approach	1338	3.0		0.986		10.2	LOS B	148.8	3810.3				
Intersection	2591	3.0		0.986		8.3	LOS A	148.8	3810.3				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

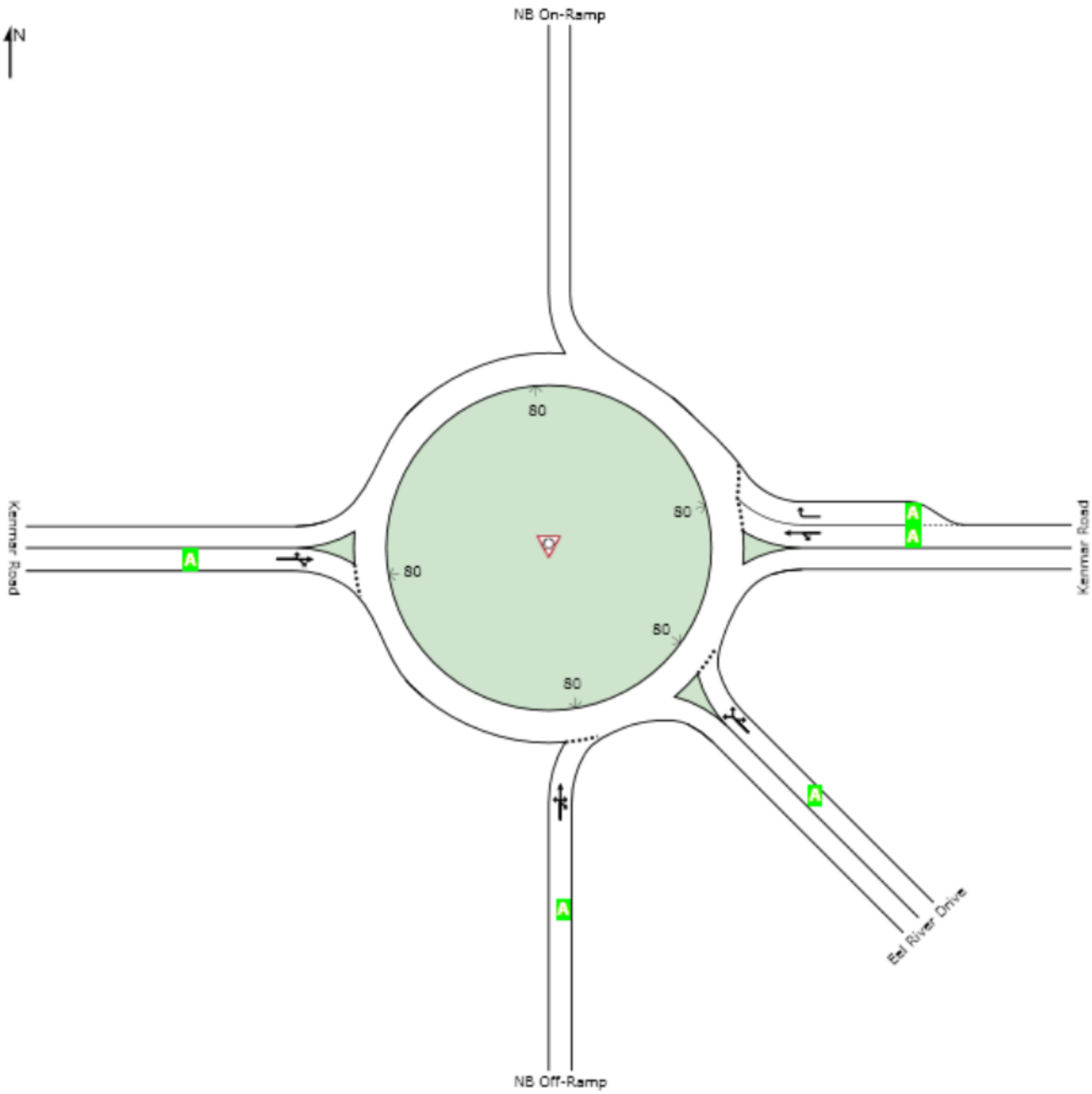
LEVEL OF SERVICE

Site: Kenmar Road/Eel River Drive/NB Ramps AM

Kenmar Road Interchange Roundabout Concept - Option 2
Cumulative AM
Roundabout

All Movement Classes

	South	Southeast	East	West	Intersection
LOS	A	A	A	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
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Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar Road/Eel River Drive/NB Ramps AM

Kenmar Road Interchange Roundabout Concept - Option 2
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Off-Ramp													
Lane 1[d]	305	3.0	951	0.321	100	7.8	LOS A	1.9	48.0	Full	1600	0.0	0.0
Approach	305	3.0		0.321		7.8	LOS A	1.9	48.0				
SouthEast: Eel River Drive													
Lane 1[d]	47	3.0	720	0.066	100	9.9	LOS A	0.4	9.8	Full	1600	0.0	0.0
Approach	47	3.0		0.066		9.9	LOS A	0.4	9.8				
East: Kenmar Road													
Lane 1	468	3.0	1258	0.372	100	5.1	LOS A	2.4	61.3	Full	1600	0.0	0.0
Lane 2[d]	695	3.0	1484	0.468	100	5.0	LOS A	3.5	88.3	Short	200	0.0	NA
Approach	1163	3.0		0.468		5.0	LOS A	3.5	88.3				
West: Kenmar Road													
Lane 1[d]	474	3.0	1356	0.349	100	4.7	LOS A	2.3	59.8	Full	1600	0.0	0.0
Approach	474	3.0		0.349		4.7	LOS A	2.3	59.8				
Intersection	1989	3.0		0.468		5.5	LOS A	3.5	88.3				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

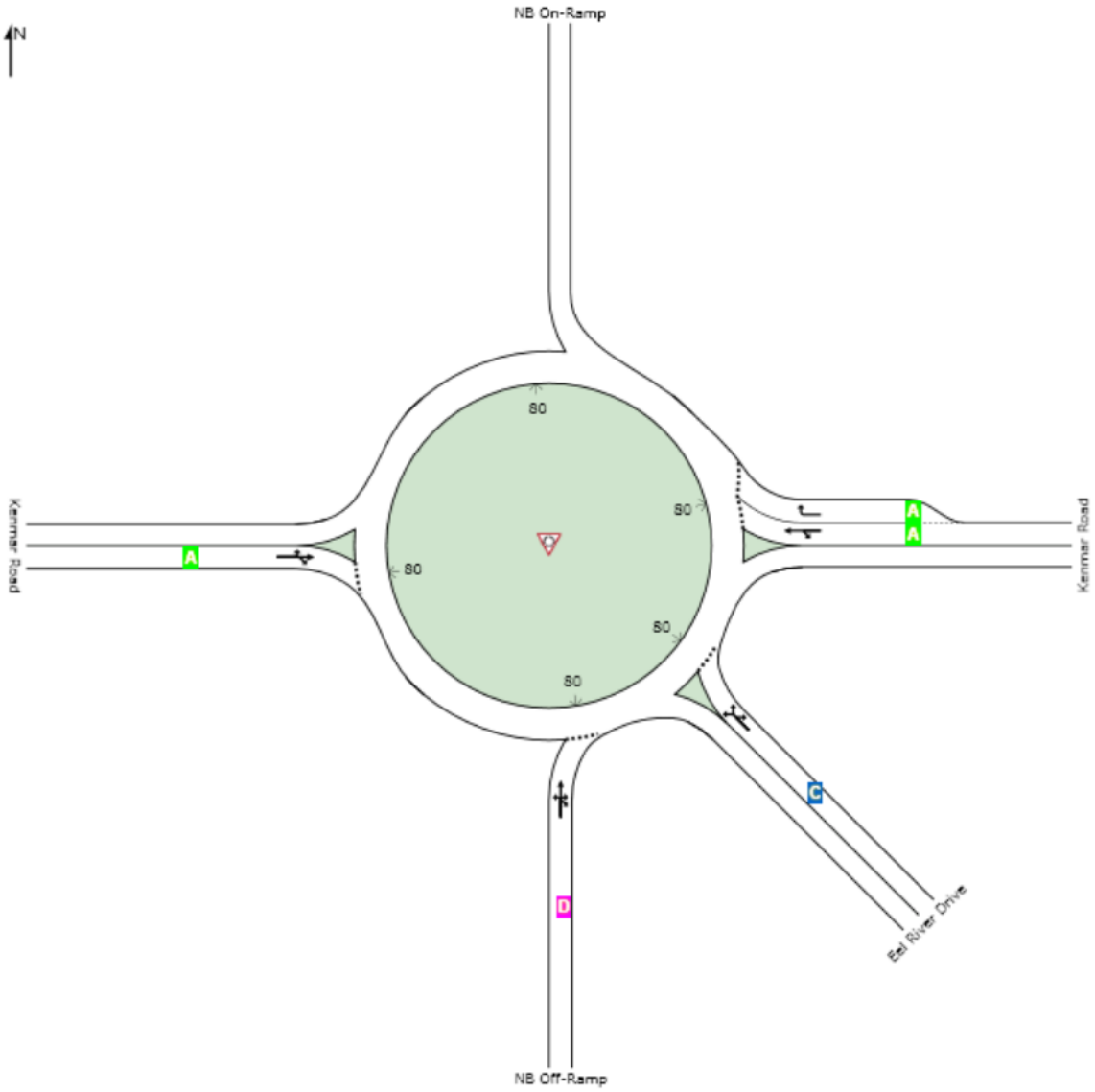
LEVEL OF SERVICE

Site: Kenmar/Eel River Drive/NB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 2
Cumulative PM
Roundabout

All Movement Classes

	South	Southeast	East	West	Intersection
LOS	D	C	A	A	B



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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Kenmar/Eel River Drive/NB Ramps PM

Kenmar Road Interchange Roundabout Concept - Option 2
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB Off-Ramp													
Lane 1[d]	380	3.0	495	0.768	100	37.3	LOS D	10.8	276.2	Full	1600	0.0	0.0
Approach	380	3.0		0.768		37.3	LOS D	10.8	276.2				
SouthEast: Eel River Drive													
Lane 1[d]	47	3.0	250	0.189	100	32.1	LOS C	1.3	33.6	Full	1600	0.0	0.0
Approach	47	3.0		0.189		32.1	LOS C	1.3	33.6				
East: Kenmar Road													
Lane 1[d]	753	3.0	1418	0.531	100	5.4	LOS A	4.2	107.2	Full	1600	0.0	0.0
Lane 2	479	3.0	1179	0.406	100	5.5	LOS A	2.7	68.7	Short	200	0.0	NA
Approach	1232	3.0		0.531		5.4	LOS A	4.2	107.2				
West: Kenmar Road													
Lane 1[d]	1100	3.0	1362	0.808	100	4.9	LOS A	16.1	413.2	Full	1600	0.0	0.0
Approach	1100	3.0		0.808		4.9	LOS A	16.1	413.2				
Intersection	2759	3.0		0.808		10.0	LOS B	16.1	413.2				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

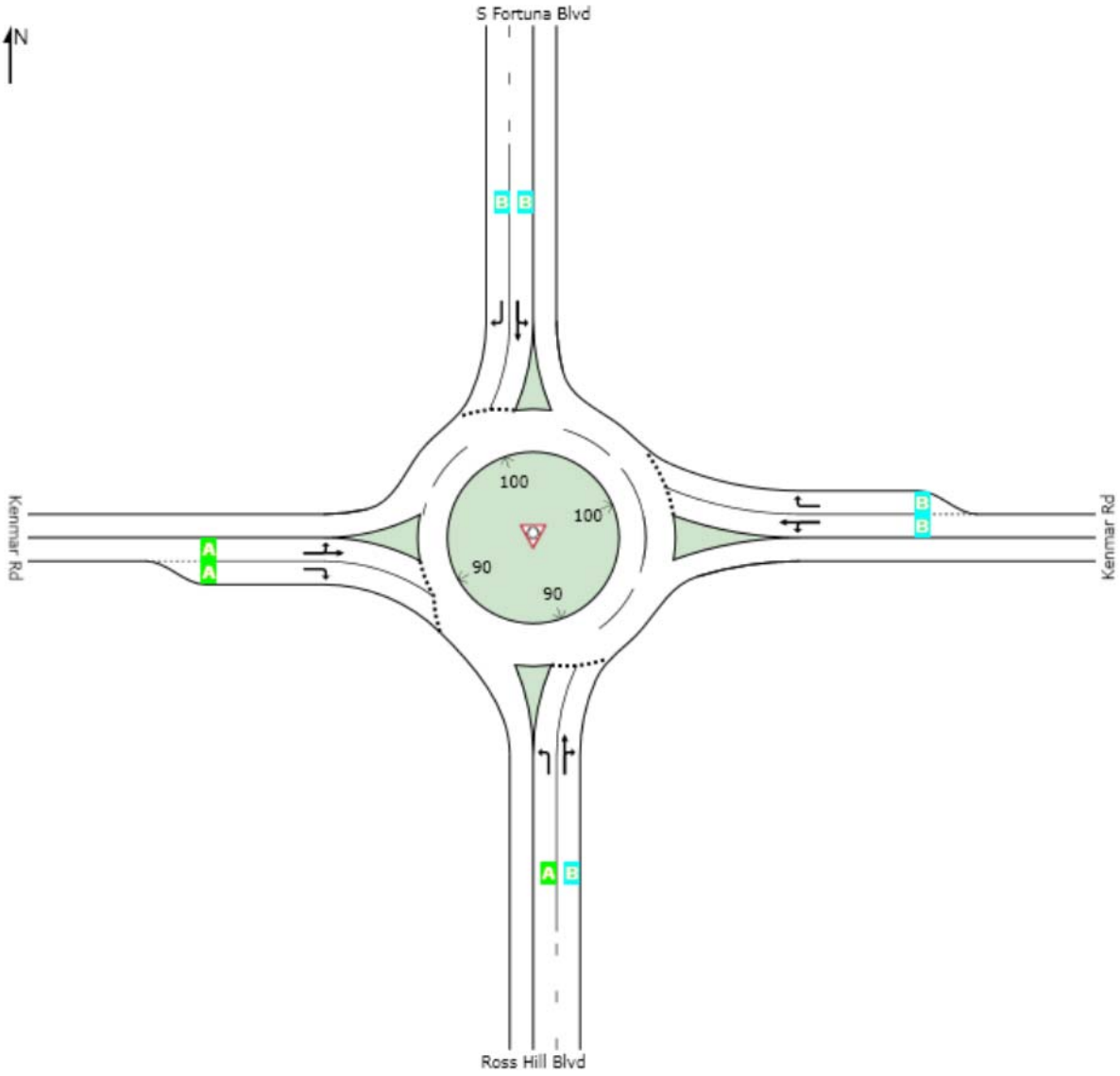
LEVEL OF SERVICE

Site: Kenmar Road/Ross Hill Road/Fortuna Boulevard AM

Kenmar Road Interchange Roundabout Concept
Cumulative AM
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	A	B	B	A	B



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

LANE SUMMARY

Site: Kenmar Road/Ross Hill Road/Fortuna Boulevard AM

Kenmar Road Interchange Roundabout Concept
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Ross Hill Blvd													
Lane 1[d]	551	2.0	1121	0.492	100	8.7	LOS A	4.0	100.5	Full	1600	0.0	0.0
Lane 2	483	2.0	922	0.524	100	10.7	LOS B	4.4	111.7	Full	1600	0.0	0.0
Approach	1034	2.0		0.524		9.7	LOS A	4.4	111.7				
East: Kenmar Rd													
Lane 1[d]	290	2.0	675	0.429	100	11.4	LOS B	2.6	64.9	Full	1600	0.0	0.0
Lane 2	275	2.0	525	0.524	100	16.8	LOS B	3.1	79.1	Short	200	0.0	NA
Approach	565	2.0		0.524		14.0	LOS B	3.1	79.1				
North: S Fortuna Blvd													
Lane 1	341	2.0	635	0.536	100	14.7	LOS B	4.9	125.1	Full	1600	0.0	0.0
Lane 2[d]	409	2.0	860	0.476	100	10.3	LOS B	4.4	111.8	Full	1600	0.0	0.0
Approach	750	2.0		0.536		12.3	LOS B	4.9	125.1				
West: Kenmar Rd													
Lane 1[d]	403	2.0	1172	0.344	100	6.4	LOS A	2.6	66.3	Full	1600	0.0	0.0
Lane 2	347	2.0	979	0.354	100	7.5	LOS A	2.5	64.6	Short	200	0.0	NA
Approach	750	2.0		0.354		6.9	LOS A	2.6	66.3				
Intersection	3099	2.0		0.536		10.4	LOS B	4.9	125.1				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

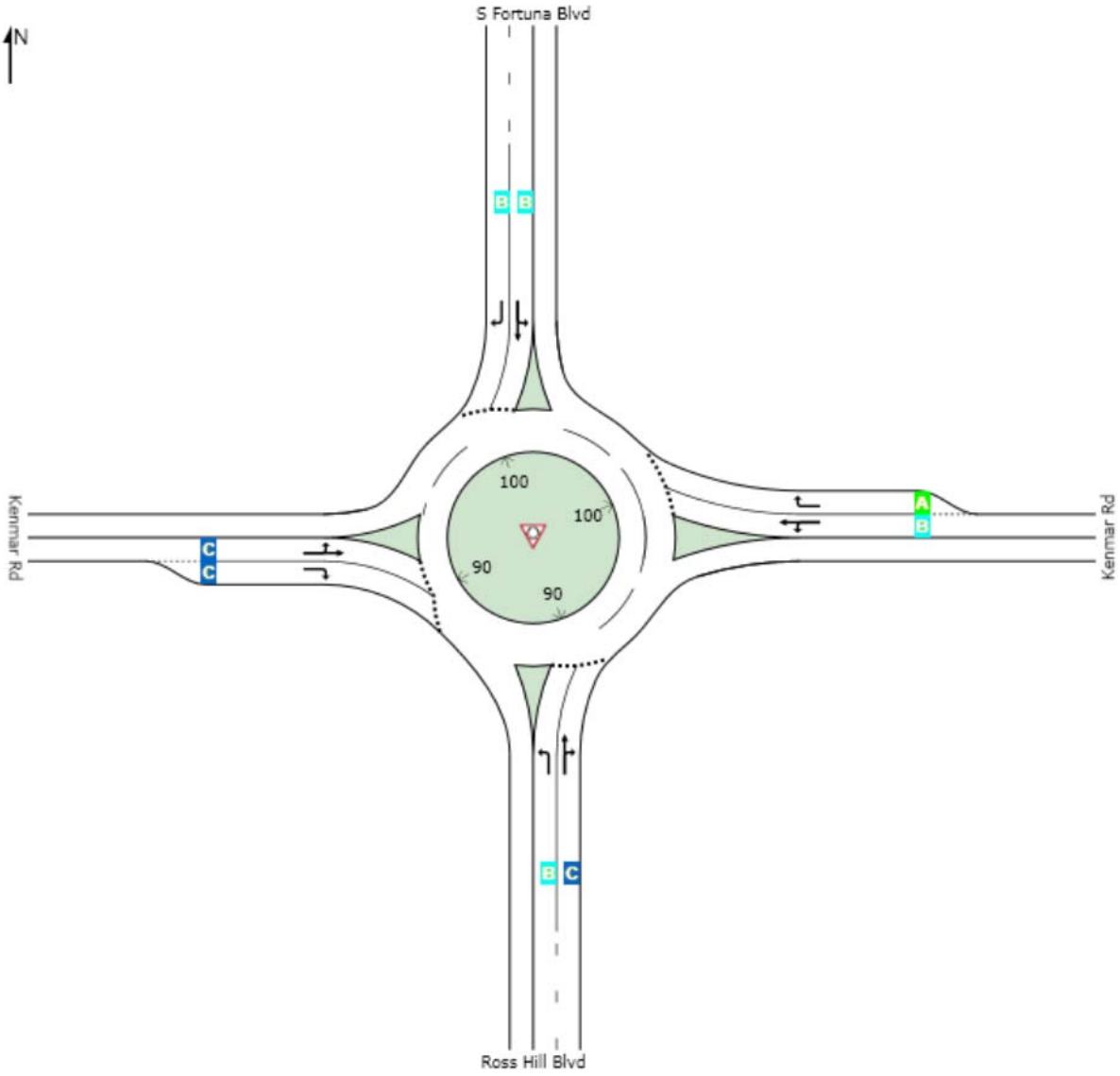
LEVEL OF SERVICE

Site: Kenmar Road/Ross Hill Road/Fortuna Boulevard PM

Kenmar Road Interchange Roundabout Concept
Cumulative AM
Roundabout

All Movement Classes

	South	East	North	West	Intersection
LOS	C	A	B	C	B



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

LANE SUMMARY

Site: Kenmar Road/Ross Hill Road/Fortuna Boulevard PM

Kenmar Road Interchange Roundabout Concept
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Ross Hill Blvd													
Lane 1[d]	389	2.0	652	0.596	100	16.3	LOS B	6.7	169.4	Full	1600	0.0	0.0
Lane 2	354	2.0	501	0.706	100	26.2	LOS C	8.2	207.2	Full	1600	0.0	0.0
Approach	742	2.0		0.706		21.0	LOS C	8.2	207.2				
East: Kenmar Rd													
Lane 1	146	2.0	539	0.272	100	10.5	LOS B	1.4	34.9	Full	1600	0.0	0.0
Lane 2[d]	146	2.0	673	0.217	100	7.9	LOS A	1.2	29.8	Short	200	0.0	NA
Approach	293	2.0		0.272		9.2	LOS A	1.4	34.9				
North: S Fortuna Blvd													
Lane 1	601	2.0	849	0.708	100	17.4	LOS B	8.7	221.9	Full	1600	0.0	0.0
Lane 2[d]	621	2.0	1045	0.594	100	11.3	LOS B	6.2	157.9	Full	1600	0.0	0.0
Approach	1222	2.0		0.708		14.3	LOS B	8.7	221.9				
West: Kenmar Rd													
Lane 1[d]	717	2.0	903	0.794	100	21.4	LOS C	12.8	324.5	Full	1600	0.0	0.0
Lane 2	540	2.0	717	0.754	100	22.5	LOS C	10.0	253.5	Short	200	0.0	NA
Approach	1258	2.0		0.794		21.9	LOS C	12.8	324.5				
Intersection	3515	2.0		0.794		18.0	LOS B	12.8	324.5				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

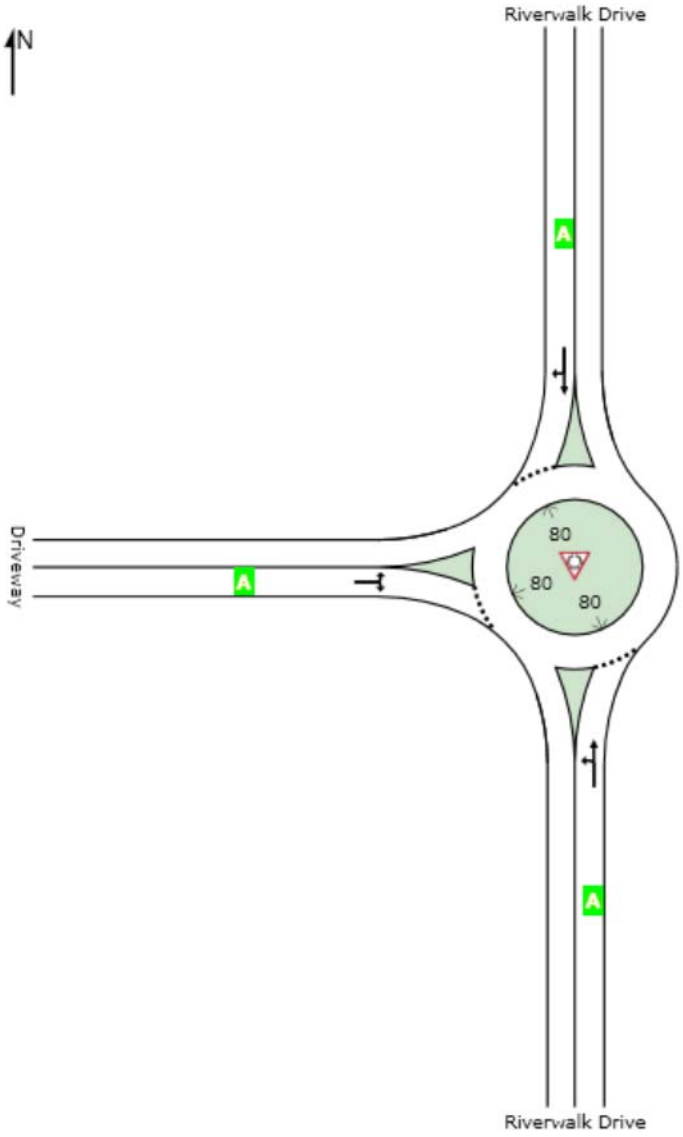
LEVEL OF SERVICE

Site: Riverwalk Drive/Driveway AM

12th Street Interchange Roundabout Concept - Option 1
Cumulative AM
Roundabout

All Movement Classes

	South	North	West	Intersection
LOS	A	A	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

LANE SUMMARY

Site: Riverwalk Drive/Driveway AM

12th Street Interchange Roundabout Concept - Option 1
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Riverwalk Drive													
Lane 1[d]	333	3.0	1368	0.243	100	4.3	LOS A	1.5	37.3	Full	1600	0.0	0.0
Approach	333	3.0		0.243		4.3	LOS A	1.5	37.3				
North: Riverwalk Drive													
Lane 1[d]	314	3.0	1376	0.228	100	4.2	LOS A	1.2	30.7	Full	1600	0.0	0.0
Approach	314	3.0		0.228		4.2	LOS A	1.2	30.7				
West: Driveway													
Lane 1[d]	8	4.7	1074	0.007	100	10.0	LOS A	0.0	0.8	Full	1600	0.0	0.0
Approach	8	4.7		0.007		10.0	LOS A	0.0	0.8				
Intersection	655	3.0		0.243		4.3	LOS A	1.5	37.3				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

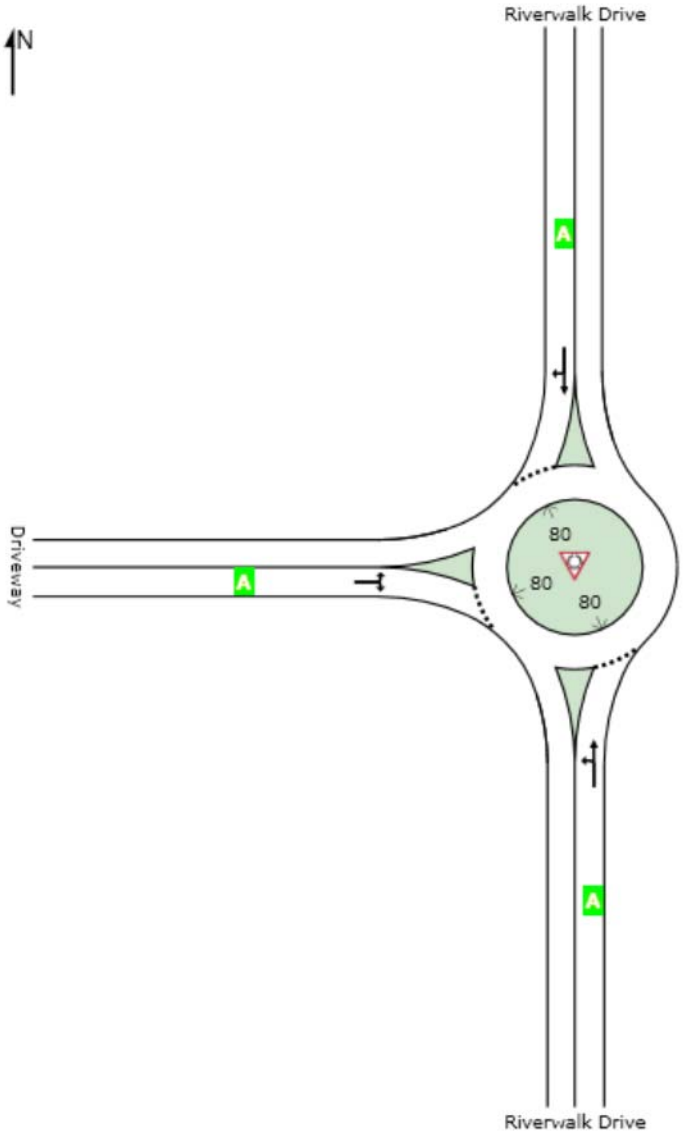
LEVEL OF SERVICE

Site: Riverwalk Drive/Driveway PM

12th Street Interchange Roundabout Concept - Option 1
Cumulative PM
Roundabout

All Movement Classes

	South	North	West	Intersection
LOS	A	A	A	A



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LANE SUMMARY

Site: Riverwalk Drive/Driveway PM

12th Street Interchange Roundabout Concept - Option 1
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Riverwalk Drive													
Lane 1[d]	484	3.0	1376	0.352	100	4.2	LOS A	2.5	63.4	Full	1600	0.0	0.0
Approach	484	3.0		0.352		4.2	LOS A	2.5	63.4				
North: Riverwalk Drive													
Lane 1[d]	409	3.0	1376	0.298	100	4.2	LOS A	1.7	42.9	Full	1600	0.0	0.0
Approach	409	3.0		0.298		4.2	LOS A	1.7	42.9				
West: Driveway													
Lane 1[d]	7	3.3	1016	0.007	100	6.6	LOS A	0.0	0.8	Full	1600	0.0	0.0
Approach	7	3.3		0.007		6.6	LOS A	0.0	0.8				
Intersection	901	3.0		0.352		4.3	LOS A	2.5	63.4				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
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HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	237	302	25
Future Vol, veh/h	0	25	0	237	302	25
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	88	88	88	88	88	88
Heavy Vehicles, %	6	6	6	6	6	6
Mvmt Flow	0	28	0	269	343	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	357	372	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.26	4.16	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.354	2.254	-	-	-
Pot Cap-1 Maneuver	0	678	1165	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	678	1165	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1165	-	678	-	-
HCM Lane V/C Ratio	-	-	0.042	-	-
HCM Control Delay (s)	0	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	122	0	521	316	47
Future Vol, veh/h	0	122	0	521	316	47
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	128	0	548	333	49

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	357	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	687	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	687	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	687	-	-
HCM Lane V/C Ratio	-	0.187	-	-
HCM Control Delay (s)	-	11.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

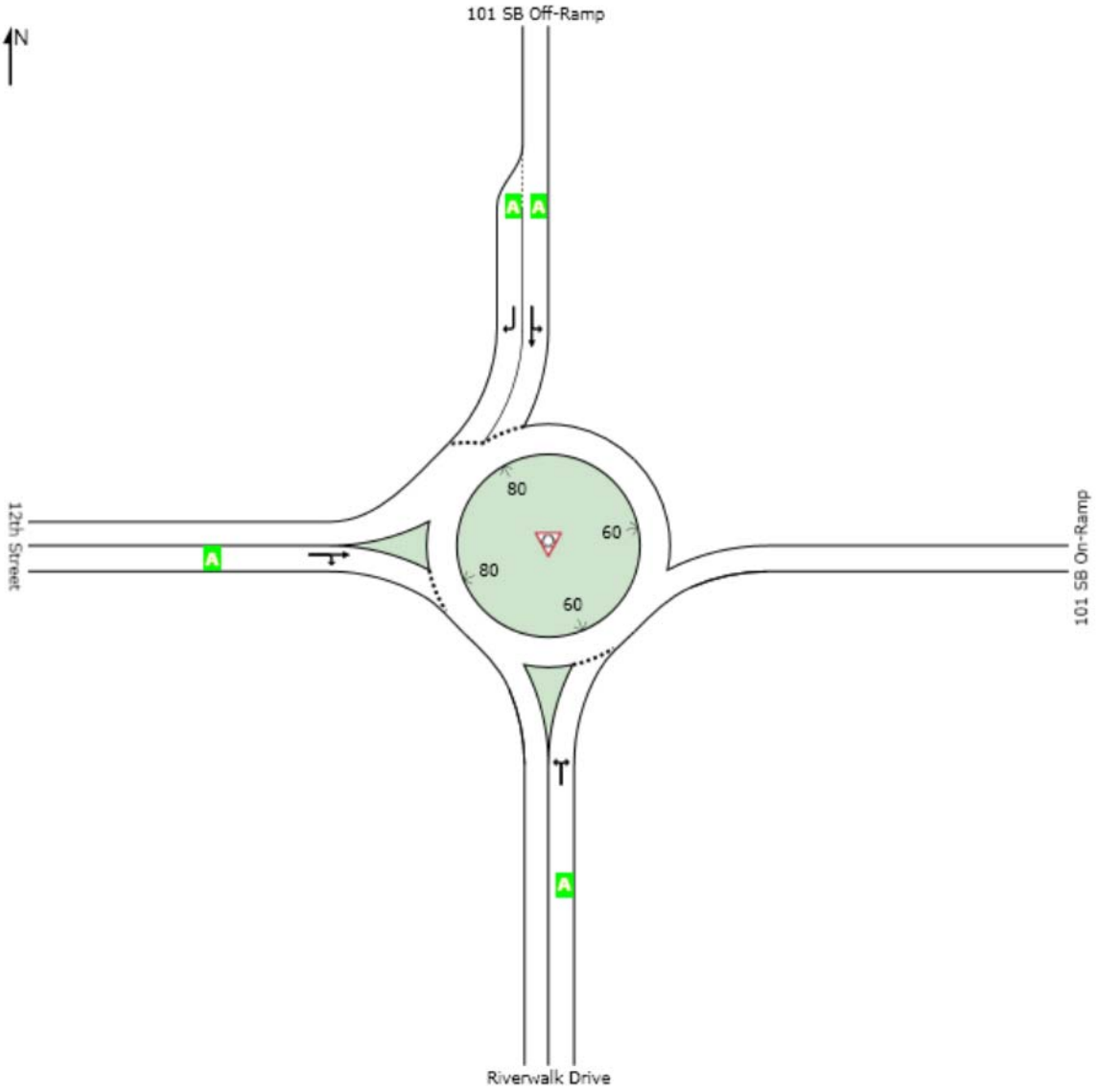
LEVEL OF SERVICE

Site: Riverwalk Drive/SB Ramps AM

12th Street Interchange Roundabout Concept - Option 1 & 2
Cumulative AM
Roundabout

All Movement Classes

	South	North	West	Intersection
LOS	A	A	A	A



Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Signalised Intersections.
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LANE SUMMARY

Site: Riverwalk Drive/SB Ramps AM

12th Street Interchange Roundabout Concept - Option 1 & 2
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Riverwalk Drive													
Lane 1[d]	292	3.0	1120	0.261	100	10.0	LOS A	1.5	38.7	Full	1600	0.0	0.0
Approach	292	3.0		0.261		10.0	LOS A	1.5	38.7				
North: 101 SB Off-Ramp													
Lane 1	175	3.0	1051	0.167	100	5.7	LOS A	0.9	22.8	Full	1600	0.0	0.0
Lane 2[d]	331	3.0	1323	0.250	100	5.5	LOS A	1.5	38.6	Short	200	0.0	NA
Approach	506	3.0		0.250		5.5	LOS A	1.5	38.6				
West: 12th Street													
Lane 1[d]	384	3.0	1172	0.328	100	5.3	LOS A	2.1	52.7	Full	1600	0.0	0.0
Approach	384	3.0		0.328		5.3	LOS A	2.1	52.7				
Intersection	1182	3.0		0.328		6.6	LOS A	2.1	52.7				

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Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

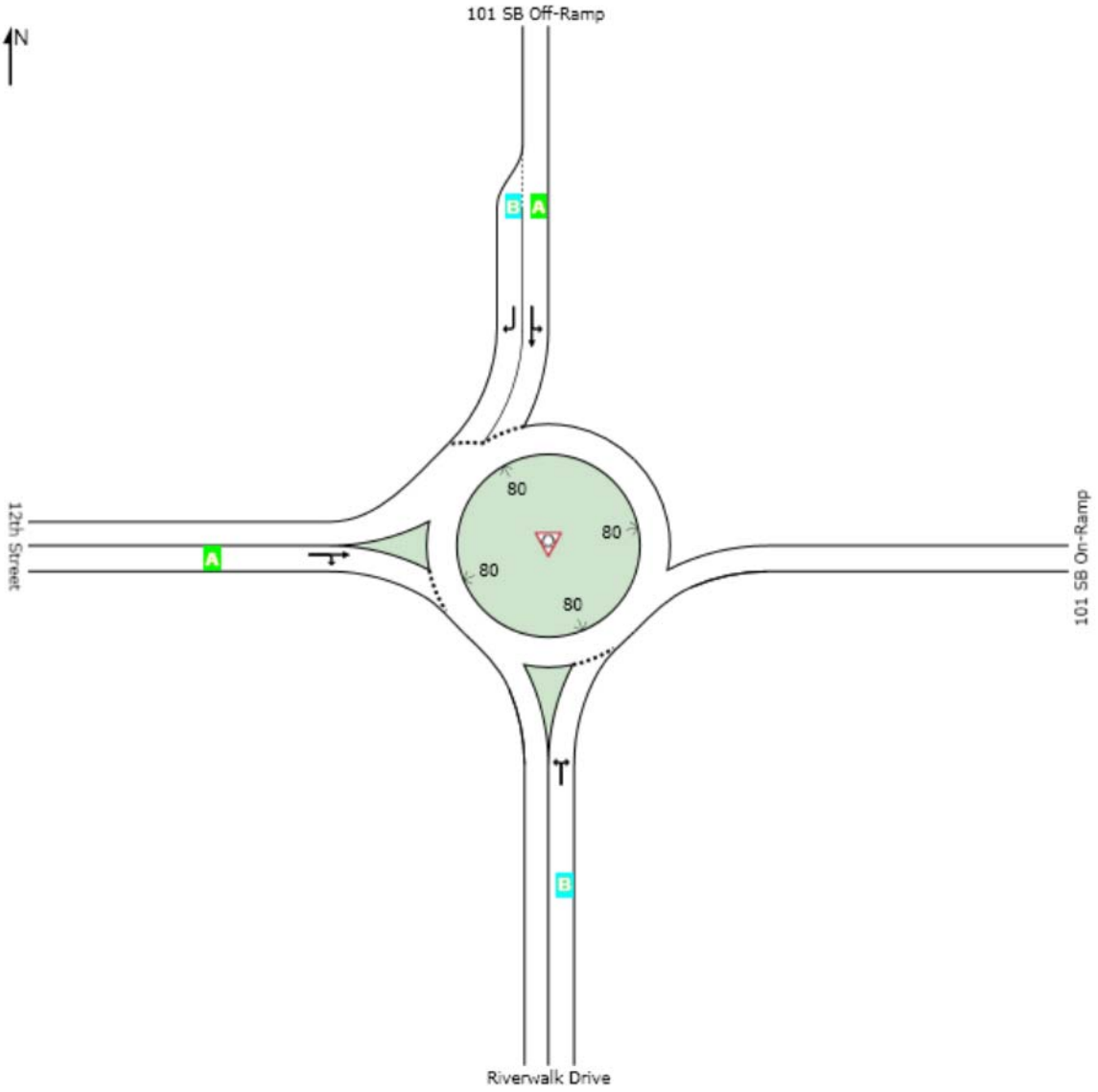
LEVEL OF SERVICE

Site: Riverwalk Drive/SB Ramps PM

12th Street Interchange Roundabout Concept - Option 1 & 2
Cumulative PM
Roundabout

All Movement Classes

	South	North	West	Intersection
LOS	B	B	A	B



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LANE SUMMARY

Site: Riverwalk Drive/SB Ramps PM

12th Street Interchange Roundabout Concept - Option 1 & 2
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: Riverwalk Drive													
Lane 1[d]	726	3.0	1126	0.645	100	11.2	LOS B	6.1	157.4	Full	1600	0.0	0.0
Approach	726	3.0		0.645		11.2	LOS B	6.1	157.4				
North: 101 SB Off-Ramp													
Lane 1	242	3.0	647	0.374	100	9.2	LOS A	2.5	64.3	Full	1600	0.0	0.0
Lane 2[d]	685	3.0	909	0.754	100	14.7	LOS B	10.9	278.0	Short	200	0.0	NA
Approach	927	3.0		0.754		13.2	LOS B	10.9	278.0				
West: 12th Street													
Lane 1[d]	544	3.0	1083	0.503	100	5.9	LOS A	4.0	102.0	Full	1600	0.0	0.0
Approach	544	3.0		0.503		5.9	LOS A	4.0	102.0				
Intersection	2198	3.0		0.754		10.7	LOS B	10.9	278.0				

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HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

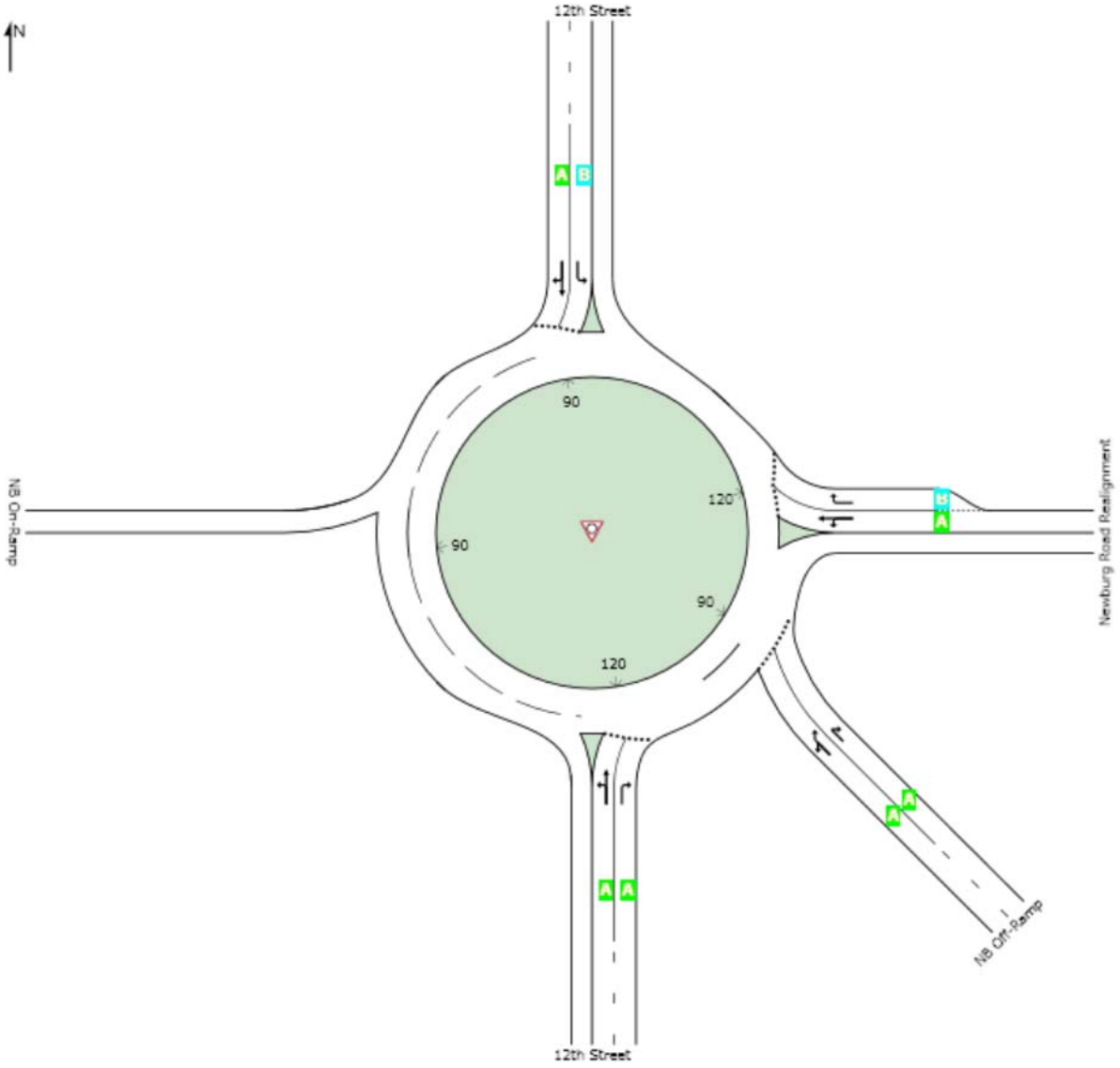
LEVEL OF SERVICE

Site: 12th Street/NB Ramps/Newburg Road AM

12th Street Interchange Roundabout Concept
Cumulative AM
Roundabout

All Movement Classes

	South	Southeast	East	North	Intersection
LOS	A	A	A	B	A



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LANE SUMMARY

Site: 12th Street/NB Ramps/Newburg Road AM

12th Street Interchange Roundabout Concept
Cumulative AM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: 12th Street													
Lane 1[d]	348	3.0	1416	0.246	100	6.8	LOS A	1.7	42.6	Full	1600	0.0	0.0
Lane 2	253	3.0	1141	0.222	100	5.3	LOS A	1.4	35.4	Full	1600	0.0	0.0
Approach	601	3.0		0.246		6.2	LOS A	1.7	42.6				
SouthEast: NB Off-Ramp													
Lane 1[d]	273	3.0	971	0.281	100	6.1	LOS A	1.3	32.4	Full	1600	0.0	0.0
Lane 2	143	3.0	742	0.193	100	7.1	LOS A	0.8	19.8	Full	1600	0.0	0.0
Approach	416	3.0		0.281		6.5	LOS A	1.3	32.4				
East: Newburg Road Realignment													
Lane 1[d]	553	3.0	1174	0.472	100	9.2	LOS A	3.7	93.9	Full	1600	0.0	0.0
Lane 2	535	3.0	893	0.599	100	10.5	LOS B	5.7	147.0	Short	200	0.0	NA
Approach	1089	3.0		0.599		9.9	LOS A	5.7	147.0				
North: 12th Street													
Lane 1	261	3.0	732	0.357	100	14.3	LOS B	2.5	63.4	Full	1600	0.0	0.0
Lane 2[d]	280	3.0	936	0.299	100	7.7	LOS A	2.2	57.3	Full	1600	0.0	0.0
Approach	541	3.0		0.357		10.9	LOS B	2.5	63.4				
Intersection	2647	3.0		0.599		8.7	LOS A	5.7	147.0				

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d Dominant lane on roundabout approach

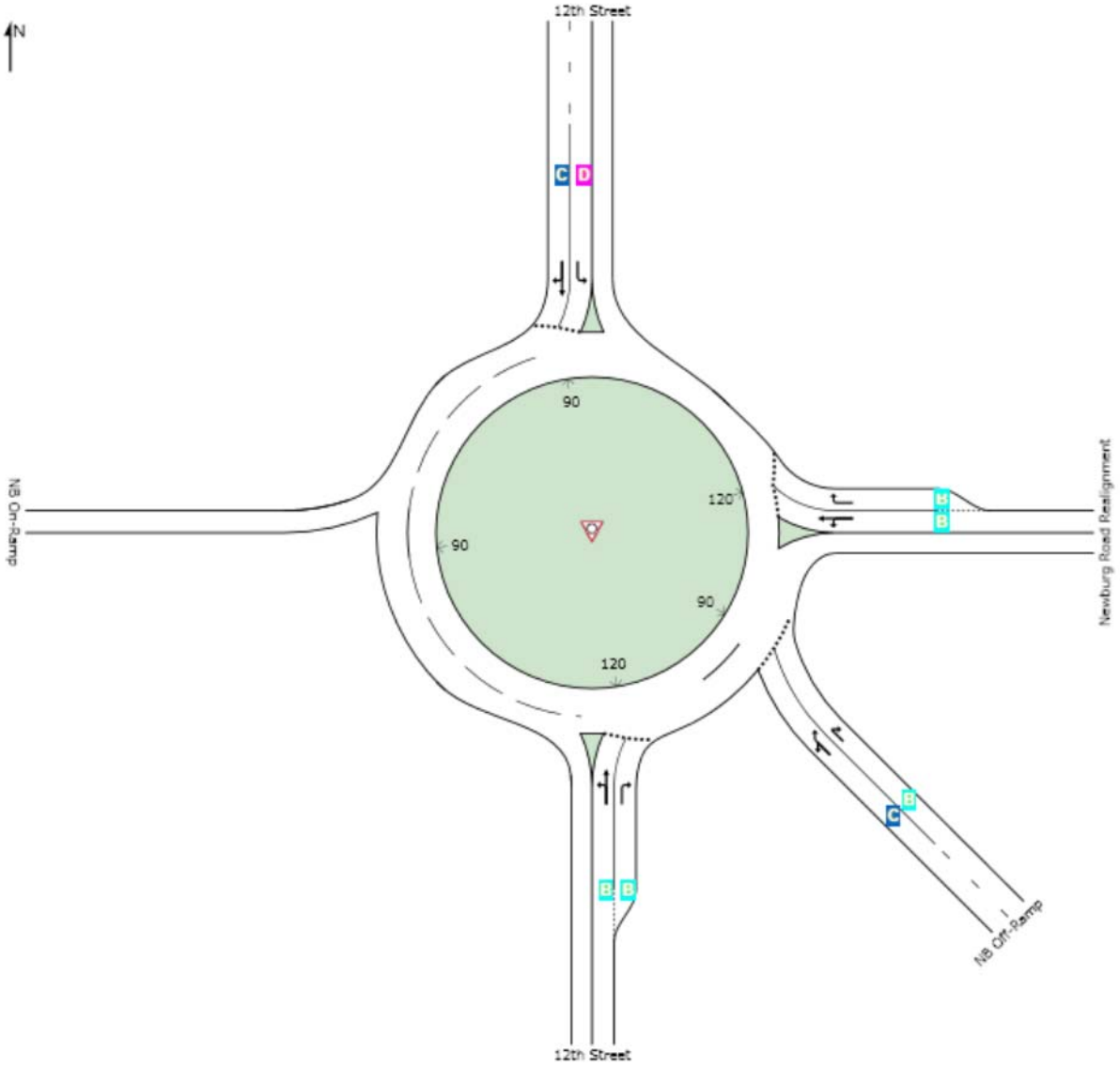
LEVEL OF SERVICE

Site: 12th Street/NB Ramps/Newburg Road PM

12th Street Interchange Roundabout Concept
Cumulative PM
Roundabout

All Movement Classes

	South	Southeast	East	North	Intersection
LOS	B	B	B	D	B



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LANE SUMMARY

Site: 12th Street/NB Ramps/Newburg Road PM

12th Street Interchange Roundabout Concept
Cumulative PM
Roundabout

Lane Use and Performance

	Demand Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Dist ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: 12th Street													
Lane 1	566	3.0	823	0.688	100	14.3	LOS B	8.1	206.2	Full	1600	0.0	0.0
Lane 2[d]	795	3.0	1078	0.737	100	10.6	LOS B	10.5	269.9	Short	200	0.0	NA
Approach	1361	3.0		0.737		12.1	LOS B	10.5	269.9				
SouthEast: NB Off-Ramp													
Lane 1	106	3.0	270	0.394	100	20.4	LOS C	2.3	57.7	Full	1600	0.0	0.0
Lane 2[d]	137	3.0	388	0.353	100	14.8	LOS B	2.3	59.0	Full	1600	0.0	0.0
Approach	243	3.0		0.394		17.3	LOS B	2.3	59.0				
East: Newburg Road Realignment													
Lane 1[d]	691	3.0	984	0.702	100	13.9	LOS B	9.5	242.5	Full	1600	0.0	0.0
Lane 2	400	3.0	731	0.547	100	10.3	LOS B	5.0	128.6	Short	200	0.0	NA
Approach	1091	3.0		0.702		12.6	LOS B	9.5	242.5				
North: 12th Street													
Lane 1[d]	552	3.0	611	0.902	100	48.5	LOS D	19.8	507.6	Full	1600	0.0	0.0
Lane 2	337	3.0	445	0.756	100	30.2	LOS C	9.4	240.1	Full	1600	0.0	0.0
Approach	888	3.0		0.902		41.6	LOS D	19.8	507.6				
Intersection	3583	3.0		0.902		19.9	LOS B	19.8	507.6				

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