

HCM 2010 Roundabout
 29: Taylor Road & Michelson Road/E Loop Road

11/01/2017

Intersection

Intersection Delay, s/veh 8.2
 Intersection LOS A

Approach	EB	WB	NB
Entry Lanes	2	2	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	81	494	877
Demand Flow Rate, veh/h	81	494	877
Vehicles Circulating, veh/h	18	743	13
Vehicles Exiting, veh/h	1219	147	86
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	3.7	10.6	7.3
Approach LOS	A	B	A

Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	LTR
Assumed Moves	LT	R	LT	TR	L	LTR
RT Channelized						
Lane Util	0.160	0.840	0.470	0.530	0.530	0.470
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	13	68	232	262	465	412
Cap Entry Lane, veh/h	1115	1116	647	672	1119	1120
Entry HV Adj Factor	1.000	1.000	1.001	0.999	1.000	1.000
Flow Entry, veh/h	13	68	232	262	465	412
Cap Entry, veh/h	1115	1116	648	671	1119	1120
V/C Ratio	0.012	0.061	0.358	0.390	0.416	0.368
Control Delay, s/veh	3.3	3.7	10.4	10.7	7.6	6.9
LOS	A	A	B	B	A	A
95th %tile Queue, veh	0	0	2	2	2	2

Intersection					
Intersection Delay, s/veh	5.3				
Intersection LOS	A				
Approach	WB	NB		SB	
Entry Lanes	1	2		2	
Conflicting Circle Lanes	2	2		2	
Adj Approach Flow, veh/h	0	595		118	
Demand Flow Rate, veh/h	0	595		118	
Vehicles Circulating, veh/h	595	0		0	
Vehicles Exiting, veh/h	0	118		595	
Follow-Up Headway, s	3.186	3.186		3.186	
Ped Vol Crossing Leg, #/h	0	0		0	
Ped Cap Adj	1.000	1.000		1.000	
Approach Delay, s/veh	0.0	5.6		3.6	
Approach LOS	-	A		A	
Lane	Left	Left	Right	Left	Right
Designated Moves	LR	LT	TR	LT	TR
Assumed Moves	LR	LT	TR	LT	TR
RT Channelized					
Lane Util	1.000	0.471	0.529	0.466	0.534
Critical Headway, s	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	0	280	315	55	63
Cap Entry Lane, veh/h	745	1130	1130	1130	1130
Entry HV Adj Factor	1.000	0.999	1.001	1.008	0.993
Flow Entry, veh/h	0	280	315	55	63
Cap Entry, veh/h	745	1129	1131	1139	1122
V/C Ratio	0.000	0.248	0.279	0.049	0.056
Control Delay, s/veh	4.8	5.5	5.8	3.6	3.7
LOS	A	A	A	A	A
95th %tile Queue, veh	0	1	1	0	0

Intersection							
Intersection Delay, s/veh	328.1						
Intersection LOS	F						
Approach	WB		NB		SB		
Entry Lanes	2		2		2		
Conflicting Circle Lanes	2		2		2		
Adj Approach Flow, veh/h	442		961		1801		
Demand Flow Rate, veh/h	442		961		1801		
Vehicles Circulating, veh/h	189		1793		30		
Vehicles Exiting, veh/h	2565		38		189		
Follow-Up Headway, s	3.186		3.186		3.186		
Ped Vol Crossing Leg, #/h	0		0		0		
Ped Cap Adj	1.000		1.000		1.000		
Approach Delay, s/veh	0.3		539.8		295.5		
Approach LOS	A		F		F		
Lane	Left	Right	Bypass	Left	Right	Left	Right
Designated Moves	L	LTR	R	LT	R	L	TR
Assumed Moves	L	LTR	R	LT	R	L	TR
RT Channelized	Free						
Lane Util	0.533	0.467		0.197	0.803	0.996	0.004
Critical Headway, s	4.293	4.113		4.293	4.113	4.293	4.113
Entry Flow, veh/h	16	14	412	189	772	1793	8
Cap Entry Lane, veh/h	981	990	1900	294	322	1105	1106
Entry HV Adj Factor	0.994	1.007	1.000	1.000	1.000	1.000	1.000
Flow Entry, veh/h	16	14	412	189	772	1793	8
Cap Entry, veh/h	974	997	1900	294	322	1105	1106
V/C Ratio	0.016	0.014	0.217	0.642	2.397	1.623	0.007
Control Delay, s/veh	3.8	3.7	0.0	35.0	663.4	296.8	3.3
LOS	A	A	A	D	F	F	A
95th %tile Queue, veh	0	0	1	4	61	93	0

HCM 2010 Roundabout
 91: Dahlgren Road & E Loop Road

11/01/2017

Intersection						
Intersection Delay, s/veh	11.0					
Intersection LOS	B					
Approach	EB		WB		SB	
Entry Lanes	2		2		2	
Conflicting Circle Lanes	2		2		2	
Adj Approach Flow, veh/h	610		41		922	
Demand Flow Rate, veh/h	610		41		922	
Vehicles Circulating, veh/h	805		410		24	
Vehicles Exiting, veh/h	141		1005		427	
Follow-Up Headway, s	3.186		3.186		3.186	
Ped Vol Crossing Leg, #/h	0		0		0	
Ped Cap Adj	1.000		1.000		1.000	
Approach Delay, s/veh	16.5		4.5		7.6	
Approach LOS	C		A		A	
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	L	LTR
Assumed Moves	L	TR	LT	TR	L	LTR
RT Channelized						
Lane Util	0.672	0.328	0.463	0.537	0.530	0.470
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113
Entry Flow, veh/h	410	200	19	22	489	433
Cap Entry Lane, veh/h	618	643	831	848	1110	1111
Entry HV Adj Factor	1.000	1.000	1.014	0.988	0.999	1.001
Flow Entry, veh/h	410	200	19	22	489	433
Cap Entry, veh/h	618	643	843	838	1109	1112
V/C Ratio	0.664	0.311	0.023	0.026	0.441	0.390
Control Delay, s/veh	19.9	9.7	4.5	4.5	8.0	7.2
LOS	C	A	A	A	A	A
95th %tile Queue, veh	5	1	0	0	2	2

Intersection						
Int Delay, s/veh	126.4					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↓			↑↑	↖	↗
Traffic Vol, veh/h	20	7	375	747	214	55
Future Vol, veh/h	20	7	375	747	214	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Yield
Storage Length	-	-	-	-	0	200
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	22	8	408	812	233	60

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	29	0	1247
Stage 1	-	-	-	-	26
Stage 2	-	-	-	-	1221
Critical Hdwy	-	-	4.1	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1597	-	~ 168
Stage 1	-	-	-	-	999
Stage 2	-	-	-	-	246
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1597	-	~ 90
Mov Cap-2 Maneuver	-	-	-	-	~ 90
Stage 1	-	-	-	-	999
Stage 2	-	-	-	-	~ 132

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	\$ 652.7
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	90	1067	-	-	1597	-
HCM Lane V/C Ratio	2.585	0.056	-	-	0.255	-
HCM Control Delay (s)	\$ 818.2	8.6	-	-	8	0.9
HCM Lane LOS	F	A	-	-	A	A
HCM 95th %tile Q(veh)	21.8	0.2	-	-	1	-

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

