

HCM 7th Signalized Intersection Summary

4: Cedar Creek Road/Cedar Creek Road & NC 96 Bypass

06/16/2024



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↱	↱	↰
Traffic Volume (veh/h)	188	177	196	629	464	158
Future Volume (veh/h)	188	177	196	629	464	158
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	197	218	699	516	176
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	323	288	311	1276	822	697
Arrive On Green	0.18	0.18	0.17	0.68	0.44	0.44
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	209	197	218	699	516	176
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	8.0	8.5	8.4	13.9	15.6	5.1
Cycle Q Clear(g_c), s	8.0	8.5	8.4	13.9	15.6	5.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	323	288	311	1276	822	697
V/C Ratio(X)	0.65	0.69	0.70	0.55	0.63	0.25
Avail Cap(c_a), veh/h	486	433	486	1276	822	697
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	27.8	28.0	28.5	5.9	15.9	12.9
Incr Delay (d2), s/veh	2.2	2.9	2.9	1.7	1.5	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	3.3	7.5	3.5	3.8	5.9	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	30.0	30.9	31.4	7.6	17.4	13.1
LnGrp LOS	C	C	C	A	B	B
Approach Vol, veh/h	406			917	692	
Approach Delay, s/veh	30.4			13.3	16.3	
Approach LOS	C			B	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	55.0			18.3	17.8	37.2
Change Period (Y+Rc), s	7.0			7.0	7.0	7.0
Max Green Setting (Gmax), s	48.0			18.0	18.0	23.0
Max Q Clear Time (g_c+I1), s	15.9			10.5	10.4	17.6
Green Ext Time (p_c), s	4.8			0.8	0.3	1.7
Intersection Summary						
HCM 7th Control Delay, s/veh			17.8			
HCM 7th LOS			B			