

























HCM 6th Signalized Intersection Summary

3: University Ave & Towne Centre Dr








04/01/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	64	193	284	93	158	273	1021	115	64	1905	64
Future Volume (veh/h)	54	64	193	284	93	158	273	1021	115	64	1905	64
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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	70	210	309	101	172	297	1110	125	70	2071	70
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	518	231	346	775	346	340	2941	913	109	2599	807
Arrive On Green	0.03	0.15	0.15	0.10	0.22	0.22	0.10	0.58	0.58	0.06	1.00	1.00
Sat Flow, veh/h	3456	3554	1585	3456	3554	1585	3456	5106	1585	3456	5106	1585
Grp Volume(v), veh/h	59	70	210	309	101	172	297	1110	125	70	2071	70
Grp Sat Flow(s),veh/h/ln	1728	1777	1585	1728	1777	1585	1728	1702	1585	1728	1702	1585
Q Serve(g_s), s	2.5	2.6	19.6	13.3	3.4	14.3	12.7	17.7	5.4	3.0	0.0	0.0
Cycle Q Clear(g_c), s	2.5	2.6	19.6	13.3	3.4	14.3	12.7	17.7	5.4	3.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	518	231	346	775	346	340	2941	913	109	2599	807
V/C Ratio(X)	0.62	0.14	0.91	0.89	0.13	0.50	0.87	0.38	0.14	0.64	0.80	0.09
Avail Cap(c_a), veh/h	346	877	391	346	877	391	415	2941	913	415	2599	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	72.1	55.8	63.1	66.7	47.2	51.4	66.7	17.2	14.6	69.5	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	8.6	23.7	0.0	0.4	14.0	0.4	0.3	2.0	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	8.5	7.0	1.6	5.8	6.3	7.0	2.1	1.3	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.3	55.9	71.7	90.4	47.2	51.8	80.7	17.6	14.9	71.5	2.3	0.2
LnGrp LOS	E	E	E	F	D	D	F	B	B	E	A	A
Approach Vol, veh/h	339				582				1532			
Approach Delay, s/veh	68.9				71.5				29.6			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.7	92.4	20.0	27.9	19.8	82.3	9.2	38.7				
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0				
Max Green Setting (Gmax), s	18.0	58.0	15.0	37.0	18.0	58.0	15.0	37.0				
Max Q Clear Time (g_c+I1), s	5.0	19.7	15.3	21.6	14.7	2.0	4.5	16.3				
Green Ext Time (p_c), s	0.0	4.3	0.0	0.3	0.1	11.8	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay	25.7											
HCM 6th LOS	C											

Educational Use Only

HCM 6th Signalized Intersection Summary 5: Towne Centre Blvd & Towne Centre Dr

04/01/2023

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	252	167	25	215	104	25
Future Volume (veh/h)	252	167	25	215	104	25
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
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	0	27	0	113	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	602		114		357	1203
Arrive On Green	0.17	0.00	0.06	0.00	0.10	0.34
Sat Flow, veh/h	3456	1585	1870	1585	3456	3647
Grp Volume(v), veh/h	274	0	27	0	113	27
Grp Sat Flow(s),veh/h/ln	1728	1585	1870	1585	1728	1777
Q Serve(g_s), s	2.0	0.0	0.4	0.0	0.9	0.1
Cycle Q Clear(g_c), s	2.0	0.0	0.4	0.0	0.9	0.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	602		114		357	1203
V/C Ratio(X)	0.46		0.24		0.32	0.02
Avail Cap(c_a), veh/h	2647		1563		2406	2970
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	10.6	0.0	12.8	0.0	11.9	6.3
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	10.8	0.0	13.2	0.0	12.1	6.3
LnGrp LOS	B		B		B	A
Approach Vol, veh/h	274		27			140
Approach Delay, s/veh	10.8		13.2			11.0
Approach LOS	B		B			B
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.0	7.8		13.0		15.7
Change Period (Y+Rc), s	5.0	6.0		8.0		6.0
Max Green Setting (Gmax), s	20.0	24.0		22.0		24.0
Max Q Clear Time (g_c+I1), s	2.9	2.4		4.0		2.1
Green Ext Time (p_c), s	0.2	0.0		0.5		0.1
Intersection Summary						
HCM 6th Ctrl Delay			11.0			
HCM 6th LOS			B			

Notes
























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

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HCM 6th Signalized Intersection Summary

6: University Ave & 1200 S

04/01/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	19	104	68	28	33	61	1113	48	54	1811	71
Future Volume (veh/h)	36	19	104	68	28	33	61	1113	48	54	1811	71
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
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	21	113	74	30	36	66	1210	52	59	1968	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	110	159	135	138	60	75	229	3886	1206	436	3882	1205
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.06	1.00	1.00	0.03	0.76	0.76
Sat Flow, veh/h	1335	1870	1585	1070	705	886	1781	5106	1585	1781	5106	1585
Grp Volume(v), veh/h	39	21	113	77	0	63	66	1210	52	59	1968	77
Grp Sat Flow(s),veh/h/ln	1335	1870	1585	1118	0	1543	1781	1702	1585	1781	1702	1585
Q Serve(g_s), s	4.3	1.6	10.5	9.0	0.0	5.8	1.2	0.0	0.0	1.1	22.5	1.8
Cycle Q Clear(g_c), s	10.1	1.6	10.5	10.5	0.0	5.8	1.2	0.0	0.0	1.1	22.5	1.8
Prop In Lane	1.00		1.00	0.96		0.57	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	110	159	135	142	0	131	229	3886	1206	436	3882	1205
V/C Ratio(X)	0.35	0.13	0.84	0.54	0.00	0.48	0.29	0.31	0.04	0.14	0.51	0.06
Avail Cap(c_a), veh/h	237	337	285	263	0	278	298	3886	1206	507	3882	1205
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	63.5	67.6	68.4	0.0	65.4	5.7	0.0	0.0	3.4	7.0	4.5
Incr Delay (d2), s/veh	0.7	0.1	5.1	1.2	0.0	1.0	0.2	0.2	0.1	0.1	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.8	4.5	3.0	0.0	2.4	0.4	0.1	0.0	0.3	7.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.0	63.6	72.7	69.6	0.0	66.4	5.9	0.2	0.1	3.4	7.5	4.6
LnGrp LOS	E	E	E	E	A	E	A	A	A	A	A	A
Approach Vol, veh/h	173			140			1328			2104		
Approach Delay, s/veh	71.2			68.2			0.5			7.3		
Approach LOS	E			E			A			A		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	120.2		20.8	9.2	120.0		20.8				
Change Period (Y+Rc), s	4.5	6.0		8.0	4.5	6.0		8.0				
Max Green Setting (Gmax), s	10.5	94.0		27.0	10.5	94.0		27.0				
Max Q Clear Time (g_c+I1), s	3.1	2.0		12.5	3.2	24.5		12.5				
Green Ext Time (p_c), s	0.0	4.2		0.1	0.0	9.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	10.1											
HCM 6th LOS	B											

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