

## **APPENDIX C – PROJECTED CONDITIONS**

### **GROWTH RATE CALCULATIONS**

### **PROJECTED TRAFFIC OPERATIONS**

**Henderson Street**

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.807	0.842	0.922

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	0	9	356	7	6	0	0	2	1	511	4	11
2017 School	1	14	485	12	28	0	1	7	3	308	4	13
2017 PM	6	15	512	16	12	1	1	14	8	403	28	24
Leg Sum AM		365			13			3			526	
Leg Sum School		500			40			11			325	
Leg Sum PM		533			29			23			455	
Leg Growth		2.48%			4.43%			0.00%			2.45%	
Future Leg AM		673			38			3			934	
Future Leg School		922			118			11			651	
Future Leg PM		983			86			23			837	
Destination Growth	0.0%	4.4%	2.5%	2.5%	2.5%	0.0%	4.4%	2.5%	2.5%	2.5%	0.0%	4.4%
Destination AM	0	27	652	13	11	0	0	4	2	943	4	33
Destination School	1	41	888	22	52	0	3	13	6	568	4	38
Destination PM	6	44	938	29	22	1	3	26	15	744	28	71
Share AM	0.0%	4.0%	96.0%	54.2%	45.8%	0.0%	0.0%	66.7%	33.3%	96.2%	0.4%	3.4%
Share School	0.1%	4.4%	95.5%	29.7%	70.3%	0.0%	13.6%	59.1%	27.3%	93.1%	0.7%	6.2%
Share PM	0.6%	4.5%	94.9%	55.8%	42.3%	1.9%	6.8%	59.1%	34.1%	88.3%	3.3%	8.4%
Balance Volume AM										57	0	2
Balance Volume School										-16	0	-1
Balance Volume PM										10	0	1
2042 AM	0	27	646	21	17	0	0	2	1	956	4	33
2042 School	1	41	880	35	83	0	2	7	3	590	4	40
2042 PM	6	44	933	48	36	2	2	14	8	749	28	71
AM Growth factor	0.00	3.00	1.81	3.00	2.83	0.00	0.00	1.00	1.00	1.87	1.00	3.00
School Growth Factor	1.00	2.93	1.81	2.92	2.96	0.00	2.00	1.00	1.00	1.92	1.00	3.08
PM Growth Factor	1.00	2.93	1.82	3.00	3.00	2.00	2.00	1.00	1.00	1.86	1.00	2.96
AM AAGR	0.0%	4.5%	2.4%	4.5%	4.3%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	4.5%
School AAGR	0.0%	4.4%	2.4%	4.4%	4.4%	0.0%	2.8%	0.0%	0.0%	2.6%	0.0%	4.6%
PM AAGR	0.0%	4.4%	2.4%	4.5%	4.5%	2.8%	2.8%	0.0%	0.0%	2.5%	0.0%	4.4%
AM Truck %	0.0%	0.0%	0.6%	14.3%	16.7%	0.0%	0.0%	0.0%	0.0%	2.0%	0.0%	18.2%
School Truck %	0.0%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	14.3%	0.0%	2.2%	0.0%	0.0%
PM Truck %	0.0%	13.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	4.2%

**Green Meadow**

Start **2017**  
 End **2042**  
 years **25**

	<b>AM</b>	<b>School</b>	<b>PM</b>
PHF	0.854	0.878	0.939

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	4	37	128	165	192	202	88	256	15	203	288	65
2017 School	5	66	149	106	35	74	182	309	7	102	255	153
2017 PM	3	31	87	114	25	100	187	361	6	85	346	199
Leg Sum AM		169			559			359			556	
Leg Sum School		220			215			498			510	
Leg Sum PM		121			239			554			630	
Leg Growth		0.99%			1.30%			2.80%			2.05%	
Future Leg AM		216			772			669			968	
Future Leg School		281			297			922			859	
Future Leg PM		155			330			995			1068	
Destination Growth	2.8%	1.3%	2.1%	2.1%	1.0%	2.8%	1.3%	2.1%	1.0%	1.0%	2.8%	1.3%
Destination AM	8	51	213	274	246	403	122	425	19	260	574	90
Destination School	10	91	247	176	45	148	251	513	9	130	509	211
Destination PM	6	43	144	189	32	199	258	600	8	109	690	275
Share AM	2.9%	18.8%	78.3%	29.7%	26.7%	43.7%	21.6%	75.1%	3.4%	28.1%	62.1%	9.7%
Share School	2.9%	26.1%	71.0%	47.7%	12.2%	40.1%	32.5%	66.4%	1.2%	15.3%	59.9%	24.8%
Share PM	3.1%	22.3%	74.6%	45.0%	7.6%	47.4%	29.8%	69.3%	0.9%	10.1%	64.2%	25.6%
Balance Volume AM				-10			-2	-8	0	1	-10	0
Balance Volume School							-4	-7	0	0	10	1
Balance Volume PM							7	15	0	-2	-10	-3
2042 AM	6	41	169	219	206	337	142	494	22	273	591	94
2042 School	8	73	199	142	36	119	295	605	11	131	524	214
2042 PM	5	35	116	149	25	156	303	704	9	106	676	270
AM Growth factor	1.50	1.11	1.32	1.33	1.07	1.67	1.61	1.93	1.47	1.34	2.05	1.45
School Growth Factor	1.60	1.11	1.34	1.34	1.03	1.61	1.62	1.96	1.57	1.28	2.05	1.40
PM Growth Factor	1.67	1.13	1.33	1.31	1.00	1.56	1.62	1.95	1.50	1.25	1.95	1.36
AM AAGR	1.6%	0.4%	1.1%	1.1%	0.3%	2.1%	1.9%	2.7%	1.5%	1.2%	2.9%	1.5%
School AAGR	1.9%	0.4%	1.2%	1.2%	0.1%	1.9%	2.0%	2.7%	1.8%	1.0%	2.9%	1.4%
PM AAGR	2.1%	0.5%	1.2%	1.1%	0.0%	1.8%	1.9%	2.7%	1.6%	0.9%	2.7%	1.2%
AM Truck %	0.0%	0.0%	3.2%	0.6%	0.0%	0.0%	0.0%	0.4%	6.7%	0.5%	3.1%	1.5%
School Truck %	0.0%	0.0%	0.0%	2.8%	2.9%	1.4%	1.0%	0.6%	0.0%	0.0%	2.8%	0.0%
PM Truck %	0.0%	0.0%	0.0%	0.0%	4.0%	1.0%	1.1%	0.0%	0.0%	0.0%	0.9%	0.0%

**Benton Avenue**

Start **2017**  
 End **2042**  
 years **25**

	<b>AM</b>	<b>School</b>	<b>PM</b>
PHF	0.867	0.871	0.974

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	53	37	180	108	79	37	6	409	138	176	465	43
2017 School	98	66	293	43	35	14	20	468	87	246	397	58
2017 PM	146	95	408	53	42	9	9	493	70	216	484	103
Leg Sum AM	270			224			553			684		
Leg Sum School	457			92			575			701		
Leg Sum PM	649			104			572			803		
Leg Growth	1.20%			1.27%			2.04%			2.67%		
Future Leg AM	364			307			882			1172		
Future Leg School	616			126			946			1147		
Future Leg PM	874			143			969			1369		
Destination Growth	2.0%	1.3%	2.7%	2.7%	1.2%	2.0%	1.3%	2.7%	1.2%	1.2%	2.0%	1.3%
Destination AM	88	51	348	209	106	61	8	790	186	237	770	59
Destination School	162	90	566	83	47	23	27	904	117	331	658	80
Destination PM	242	130	788	102	57	15	12	953	94	291	802	141
Share AM	18.1%	10.5%	71.5%	55.6%	28.2%	16.2%	0.8%	80.3%	18.9%	22.2%	72.2%	5.5%
Share School	19.8%	11.0%	69.2%	54.2%	30.7%	15.0%	2.6%	86.3%	11.2%	31.0%	61.6%	7.5%
Share PM	20.9%	11.2%	67.9%	58.6%	32.8%	8.6%	1.1%	90.0%	8.9%	23.6%	65.0%	11.4%
Balance Volume AM							0	4	1	1	5	1
Balance Volume School							0	17	2	5	12	2
Balance Volume PM							0	16	2	-5	-16	-3
2042 AM	66	38	260	171	87	50	7	712	168	262	852	66
2042 School	122	68	426	68	39	19	24	833	108	360	718	88
2042 PM	182	98	594	84	47	12	11	888	88	318	874	153
AM Growth factor	1.25	1.03	1.44	1.58	1.10	1.35	1.17	1.74	1.22	1.49	1.83	1.53
School Growth Factor	1.24	1.03	1.45	1.58	1.11	1.36	1.20	1.78	1.24	1.46	1.81	1.52
PM Growth Factor	1.25	1.03	1.46	1.58	1.12	1.33	1.22	1.80	1.26	1.47	1.81	1.49
AM AAGR	0.9%	0.1%	1.5%	1.9%	0.4%	1.2%	0.6%	2.2%	0.8%	1.6%	2.5%	1.7%
School AAGR	0.9%	0.1%	1.5%	1.9%	0.4%	1.2%	0.7%	2.3%	0.9%	1.5%	2.4%	1.7%
PM AAGR	0.9%	0.1%	1.5%	1.9%	0.5%	1.2%	0.8%	2.4%	0.9%	1.6%	2.4%	1.6%
AM Truck %	3.8%	10.8%	2.2%	2.8%	0.0%	0.0%	0.0%	1.0%	1.4%	1.7%	1.7%	2.3%
School Truck %	0.0%	1.5%	1.0%	0.0%	2.9%	0.0%	0.0%	1.0%	0.0%	0.4%	2.1%	0.0%
PM Truck %	0.0%	0.0%	0.5%	0.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.5%	0.4%	0.0%

**Cooney Drive**

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.926	0.905	0.987

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM				80		5	12	685			674	52
2017 School				74		15	10	791			674	54
2017 PM				82		19	7	938			799	70
Leg Sum AM		0			85			697			726	
Leg Sum School		0			89			801			728	
Leg Sum PM		0			101			945			869	
Leg Growth		0.00%			0.67%			2.67%			2.59%	
Future Leg AM		0			100			1143			1206	
Future Leg School		0			105			1327			1184	
Future Leg PM		0			119			1566			1426	
Destination Growth	2.7%	0.7%	2.6%	2.6%	0.0%	2.7%	0.7%	2.6%	0.0%	0.0%	2.7%	0.7%
Destination AM	0	0	0	152	0	10	14	1298	0	0	1302	61
Destination School	0	0	0	140	0	29	12	1499	0	0	1302	64
Destination PM	0	0	0	155	0	37	8	1778	0	0	1544	83
Share AM				93.8%	0.0%	6.2%	1.1%	98.9%	0.0%	0.0%	95.5%	4.5%
Share School				82.8%	0.0%	17.2%	0.8%	99.2%	0.0%	0.0%	95.3%	4.7%
Share PM				80.7%	0.0%	19.3%	0.4%	99.6%	0.0%	0.0%	94.9%	5.1%
Balance Volume AM							0	0			14	1
Balance Volume School							0	-5			0	0
Balance Volume PM							0	-14			-7	0
2042 AM	0	0	0	94	0	6	12	1131	0	0	1166	55
2042 School	0	0	0	87	0	18	11	1311	0	0	1129	55
2042 PM	0	0	0	96	0	23	7	1545	0	0	1346	73
AM Growth factor	0.00	0.00	0.00	1.18	0.00	1.20	1.00	1.65	0.00	0.00	1.73	1.06
School Growth Factor	0.00	0.00	0.00	1.18	0.00	1.20	1.10	1.66	0.00	0.00	1.68	1.02
PM Growth Factor	0.00	0.00	0.00	1.17	0.00	1.21	1.00	1.65	0.00	0.00	1.68	1.04
AM AAGR	0.0%	0.0%	0.0%	0.6%	0.0%	0.7%	0.0%	2.0%	0.0%	0.0%	2.2%	0.2%
School AAGR	0.0%	0.0%	0.0%	0.6%	0.0%	0.7%	0.4%	2.0%	0.0%	0.0%	2.1%	0.1%
PM AAGR	0.0%	0.0%	0.0%	0.6%	0.0%	0.8%	0.0%	2.0%	0.0%	0.0%	2.1%	0.2%
AM Truck %				0.0%	0.0%		0.0%	1.6%			2.1%	3.8%
School Truck %				0.0%	6.7%		0.0%	1.0%			1.0%	1.9%
PM Truck %				0.0%	0.0%		0.0%	0.2%			0.4%	1.4%

McHugh Drive

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.932	0.889	0.969

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	69	58	81	167	110	176	115	572	35	69	471	63
2017 School	84	54	67	114	38	104	145	664	57	31	540	83
2017 PM	74	82	29	182	26	155	186	780	25	17	644	106
Leg Sum AM	208			453			722			603		
Leg Sum School	205			256			866			654		
Leg Sum PM	185			363			991			767		
Leg Growth	0.99%			2.00%			2.59%			2.81%		
Future Leg AM	266			743			1225			1073		
Future Leg School	262			420			1398			1099		
Future Leg PM	237			596			1641			1265		
Destination Growth	2.6%	2.0%	2.8%	2.8%	1.0%	2.6%	2.0%	2.8%	1.0%	1.0%	2.6%	2.0%
Destination AM	131	95	162	334	141	334	189	1144	45	88	893	103
Destination School	159	89	134	228	49	197	238	1328	73	40	1023	136
Destination PM	140	135	58	364	33	294	305	1559	32	22	1220	174
Share AM	33.8%	24.5%	41.8%	41.3%	17.4%	41.3%	13.7%	83.0%	3.3%	8.1%	82.4%	9.5%
Share School	41.6%	23.3%	35.1%	48.1%	10.3%	41.6%	14.5%	81.0%	4.5%	3.3%	85.3%	11.3%
Share PM	42.0%	40.5%	17.4%	52.7%	4.8%	42.5%	16.1%	82.2%	1.7%	1.6%	86.2%	12.3%
Balance Volume AM				-20			-9	-58	-2	-4	-55	-4
Balance Volume School							0	1	0	-1	-38	-5
Balance Volume PM							-7	-36	-1	0	-18	-3
2042 AM	90	65	111	287	129	287	159	959	38	83	829	98
2042 School	109	61	92	202	43	175	203	1134	62	36	900	120
2042 PM	100	96	41	314	28	254	257	1313	27	20	1072	152
AM Growth factor	1.30	1.12	1.37	1.72	1.17	1.63	1.38	1.68	1.09	1.20	1.76	1.56
School Growth Factor	1.30	1.13	1.37	1.77	1.13	1.68	1.40	1.71	1.09	1.16	1.67	1.45
PM Growth Factor	1.35	1.17	1.41	1.73	1.08	1.64	1.38	1.68	1.08	1.18	1.66	1.43
AM AAGR	1.1%	0.5%	1.3%	2.2%	0.6%	2.0%	1.3%	2.1%	0.3%	0.7%	2.3%	1.8%
School AAGR	1.0%	0.5%	1.3%	2.3%	0.5%	2.1%	1.4%	2.2%	0.3%	0.6%	2.1%	1.5%
PM AAGR	1.2%	0.6%	1.4%	2.2%	0.3%	2.0%	1.3%	2.1%	0.3%	0.7%	2.1%	1.5%
AM Truck %	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	3.6%	0.0%
School Truck %	0.0%	0.0%	1.5%	0.0%	0.0%	1.0%	0.0%	1.7%	1.8%	0.0%	1.5%	1.2%
PM Truck %	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	0.0%	0.3%	0.0%	0.0%	0.8%	0.9%

Dropped southbound based on construction of apartments since TDM model was made the TMC include the traffic from the apartments.

Villard Avenue

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.903	0.880	0.973

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	17	5	60	5	15	10	10	739	80	51	607	15
2017 School	20	5	81	5	15	10	10	820	42	43	651	15
2017 PM	13	5	106	5	15	10	10	938	51	76	757	15
Leg Sum AM		82			30			829			673	
Leg Sum School		106			30			872			709	
Leg Sum PM		124			30			999			848	
Leg Growth		1.22%			1.00%			2.79%			2.81%	
Future Leg AM		111			38			1357			1107	
Future Leg School		144			38			1428			1070	
Future Leg PM		168			38			1668			1231	
Destination Growth	2.8%	1.0%	2.8%	2.8%	1.2%	2.8%	1.0%	2.8%	1.2%	1.2%	2.8%	1.0%
Destination AM	34	6	120	10	20	20	13	1478	108	69	1208	19
Destination School	40	6	162	10	20	20	13	1639	57	58	1295	19
Destination PM	26	6	212	10	20	20	13	1875	69	103	1506	19
Share AM	21.3%	3.8%	75.0%	20.0%	40.0%	40.0%	0.8%	92.4%	6.8%	5.3%	93.2%	1.5%
Share School	19.2%	2.9%	77.9%	20.0%	40.0%	40.0%	0.8%	95.9%	3.3%	4.2%	94.4%	1.4%
Share PM	10.7%	2.5%	86.9%	20.0%	40.0%	40.0%	0.7%	95.8%	3.5%	6.3%	92.5%	1.2%
Balance Volume AM		1		-3		-5	-1	-25	1	1	7	-1
Balance Volume School		1		-3		-5	-1	43	1	2	51	0
Balance Volume PM		1		-3		-5	-1	13	0	7	98	1
2042 AM	24	5	83	5	15	10	10	1229	93	60	1039	15
2042 School	28	5	112	5	15	10	10	1413	49	47	1061	15
2042 PM	18	5	146	5	15	10	10	1611	59	85	1237	15
AM Growth factor	1.41	1.00	1.38	1.00	1.00	1.00	1.00	1.66	1.16	1.18	1.71	1.00
School Growth Factor	1.40	1.00	1.38	1.00	1.00	1.00	1.00	1.72	1.17	1.09	1.63	1.00
PM Growth Factor	1.38	1.00	1.38	1.00	1.00	1.00	1.00	1.72	1.16	1.12	1.63	1.00
AM AAGR	1.4%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	2.1%	0.6%	0.7%	2.2%	0.0%
School AAGR	1.4%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	2.2%	0.6%	0.4%	2.0%	0.0%
PM AAGR	1.3%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	2.2%	0.6%	0.4%	2.0%	0.0%
AM Truck %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	9.8%	2.4%	0.0%
School Truck %	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	2.2%	0.0%
PM Truck %	7.7%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.6%	0.0%

Construction is not complete, traffic volumes are estimated

Montana Avenue

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.869	0.937	0.969

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	110	185	66	295	552	82	75	478	176	222	475	192
2017 School	165	519	202	271	411	78	169	546	126	220	431	302
2017 PM	171	640	264	250	436	84	186	678	141	269	525	402
Leg Sum AM	361			929			729			889		
Leg Sum School	886			760			841			953		
Leg Sum PM	1075			770			1005			1196		
Leg Growth	0.54%			1.09%			2.00%			1.44%		
Future Leg AM	413			1218			1317			1365		
Future Leg School	1014			997			1530			1442		
Future Leg PM	1230			1010			1762			1701		
Destination Growth	2.0%	1.1%	1.4%	1.4%	0.5%	2.0%	1.1%	1.4%	0.5%	0.5%	2.0%	1.1%
Destination AM	180	243	94	422	632	135	98	683	201	254	779	252
Destination School	271	681	289	387	470	128	222	781	144	252	707	396
Destination PM	281	839	377	357	499	138	244	969	161	308	861	527
Share AM	34.8%	47.0%	18.2%	35.5%	53.2%	11.4%	10.0%	69.6%	20.5%	19.8%	60.6%	19.6%
Share School	21.8%	54.9%	23.3%	39.3%	47.7%	13.0%	19.4%	68.1%	12.6%	18.6%	52.2%	29.2%
Share PM	18.8%	56.0%	25.2%	35.9%	50.2%	13.9%	17.8%	70.5%	11.7%	18.2%	50.8%	31.1%
Balance Volume AM							-13	-82	-27	0	-2	-1
Balance Volume School							-20	-72	-13	-12	-33	-18
Balance Volume PM							-13	-51	-8	-1	-4	-3
2042 AM	144	194	75	432	647	138	118	834	243	270	825	267
2042 School	221	556	236	392	476	130	276	970	179	256	719	403
2042 PM	231	689	310	363	507	140	300	1192	198	308	860	526
AM Growth factor	1.31	1.05	1.14	1.46	1.17	1.68	1.57	1.74	1.38	1.22	1.74	1.39
School Growth Factor	1.34	1.07	1.17	1.45	1.16	1.67	1.63	1.78	1.42	1.16	1.67	1.33
PM Growth Factor	1.35	1.08	1.17	1.45	1.16	1.67	1.61	1.76	1.40	1.14	1.64	1.31
AM AAGR	1.1%	0.2%	0.5%	1.5%	0.6%	2.1%	1.8%	2.3%	1.3%	0.8%	2.2%	1.3%
School AAGR	1.2%	0.3%	0.6%	1.5%	0.6%	2.1%	2.0%	2.3%	1.4%	0.6%	2.1%	1.2%
PM AAGR	1.2%	0.3%	0.6%	1.5%	0.6%	2.1%	1.9%	2.3%	1.4%	0.5%	2.0%	1.1%
AM Truck %	2.7%	1.6%	4.5%	2.0%	0.6%	4.9%	1.3%	2.5%	1.7%	2.3%	4.0%	2.1%
School Truck %	0.6%	0.4%	0.5%	2.5%	0.7%	0.0%	0.0%	1.6%	0.0%	1.4%	1.8%	2.0%
PM Truck %	0.0%	0.8%	0.0%	0.4%	0.4%	0.0%	0.0%	0.7%	0.0%	0.4%	1.2%	0.2%

Decreased based on engineering judgement



**Sanders Street**

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.844	0.908	0.956

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	29	41	58	93	40	39	79	705	57	167	824	106
2017 School	80	62	196	247	70	83	98	888	85	128	834	181
2017 PM	113	89	277	276	70	94	147	1000	103	163	995	201
Leg Sum AM		128			172			841			1097	
Leg Sum School		338			400			1071			1143	
Leg Sum PM		479			440			1250			1359	
Leg Growth		0.81%			1.50%			1.44%			1.43%	
Future Leg AM		157			250			1341			1676	
Future Leg School		414			580			1598			1636	
Future Leg PM		586			638			1865			1968	
Destination Growth	1.4%	1.5%	1.4%	1.4%	0.8%	1.4%	1.5%	1.4%	0.8%	0.8%	1.4%	1.5%
Destination AM	41	59	83	133	49	56	115	1005	70	204	1178	154
Destination School	114	90	280	352	86	119	142	1266	104	157	1192	263
Destination PM	162	129	395	394	86	134	213	1426	126	199	1423	292
Share AM	22.4%	32.2%	45.4%	55.9%	20.6%	23.5%	9.7%	84.5%	5.9%	13.3%	76.7%	10.0%
Share School	23.6%	18.6%	57.9%	63.2%	15.4%	21.4%	9.4%	83.7%	6.9%	9.7%	73.9%	16.3%
Share PM	23.6%	18.8%	57.6%	64.2%	14.0%	21.8%	12.1%	80.8%	7.1%	10.4%	74.3%	15.3%
Balance Volume AM							1	2	0	-2	-14	-2
Balance Volume School							8	68	6	1	10	3
Balance Volume PM							11	72	6	-5	-39	-8
2042 AM	35	51	71	140	51	59	131	1135	79	221	1271	166
2042 School	98	77	240	367	90	124	158	1406	116	160	1220	270
2042 PM	138	110	337	409	89	139	236	1579	139	200	1424	292
AM Growth factor	1.21	1.24	1.22	1.51	1.28	1.51	1.66	1.61	1.39	1.32	1.54	1.57
School Growth Factor	1.23	1.24	1.22	1.49	1.29	1.49	1.61	1.58	1.36	1.25	1.46	1.49
PM Growth Factor	1.22	1.24	1.22	1.48	1.27	1.48	1.61	1.58	1.35	1.23	1.43	1.45
AM AAGR	0.8%	0.9%	0.8%	1.6%	1.0%	1.7%	2.0%	1.9%	1.3%	1.1%	1.7%	1.8%
School AAGR	0.8%	0.9%	0.8%	1.6%	1.0%	1.6%	1.9%	1.9%	1.3%	0.9%	1.5%	1.6%
PM AAGR	0.8%	0.9%	0.8%	1.6%	1.0%	1.6%	1.9%	1.8%	1.2%	0.8%	1.4%	1.5%
AM Truck %	3.4%	0.0%	0.0%	2.2%	2.5%	10.3%	2.5%	3.3%	0.0%	0.6%	3.4%	0.9%
School Truck %	2.5%	0.0%	0.0%	0.8%	0.0%	2.4%	3.0%	2.0%	1.2%	2.4%	1.3%	2.8%
PM Truck %	0.9%	1.1%	0.8%	0.4%	0.0%	0.0%	0.0%	0.7%	0.0%	0.6%	0.7%	0.0%

TDM had zero volume, this is set based on engineering judgment.

I-15 SB

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.851	0.930	0.947

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM				78		133		428	425		981	212
2017 School				66		67		975	372		1065	125
2017 PM				64		80		1197	382		1314	137
Leg Sum AM		0			211			853			1193	
Leg Sum School		0			133			1347			1190	
Leg Sum PM		0			144			1579			1451	
Leg Growth		0.00%			3.84%			1.49%			1.39%	
Future Leg AM		0			541			1346			1706	
Future Leg School		0			341			2013			1766	
Future Leg PM		0			369			2325			2085	
Destination Growth	1.5%	3.8%	1.4%	1.4%	0.0%	1.5%	3.8%	1.4%	0.0%	0.0%	1.5%	3.8%
Destination AM	0	0	0	110	0	193	0	604	425	0	1420	544
Destination School	0	0	0	93	0	97	0	1377	372	0	1541	321
Destination PM	0	0	0	90	0	116	0	1690	382	0	1902	351
Share AM				36.3%	0.0%	63.7%	0.0%	58.7%	41.3%	0.0%	72.3%	27.7%
Share School				48.9%	0.0%	51.1%	0.0%	78.7%	21.3%	0.0%	82.8%	17.2%
Share PM				43.7%	0.0%	56.3%	0.0%	81.6%	18.4%	0.0%	84.4%	15.6%
Balance Volume AM					-92			-74	-2		98	0
Balance Volume School					-75			-26	5		0	0
Balance Volume PM					-72			-2	7		0	0
2042 AM	0	0	0	104	0	345	0	716	554	0	1331	473
2042 School	0	0	0	92	0	174	0	1559	433	0	1462	304
2042 PM	0	0	0	89	0	208	0	1894	436	0	1760	325
AM Growth factor	0.00	0.00	0.00	1.33	0.00	2.59	0.00	1.67	1.30	0.00	1.36	2.23
School Growth Factor	0.00	0.00	0.00	1.39	0.00	2.60	0.00	1.60	1.16	0.00	1.37	2.43
PM Growth Factor	0.00	0.00	0.00	1.39	0.00	2.60	0.00	1.58	1.14	0.00	1.34	2.37
AM AAGR	0.0%	0.0%	0.0%	1.2%	0.0%	3.9%	0.0%	2.1%	1.1%	0.0%	1.2%	3.3%
School AAGR	0.0%	0.0%	0.0%	1.3%	0.0%	3.9%	0.0%	1.9%	0.6%	0.0%	1.3%	3.6%
PM AAGR	0.0%	0.0%	0.0%	1.3%	0.0%	3.9%	0.0%	1.9%	0.5%	0.0%	1.2%	3.5%
AM Truck %				16.7%		1.6%		4.0%	1.2%		3.1%	1.4%
School Truck %				22.7%		6.0%		1.1%	1.3%		1.6%	2.4%
PM Truck %				12.5%		6.3%		0.4%	1.0%		0.2%	1.5%

I-15 NB

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.868	0.944	0.966

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	248	0	69				41	471			926	34
2017 School	353	0	128				91	949			858	87
2017 PM	454	0	186				120	1138			974	116
Leg Sum AM		317			0			512			960	
Leg Sum School		481			0			1040			945	
Leg Sum PM		640			0			1258			1090	
Leg Growth		1.31%			0.00%			1.39%			1.30%	
Future Leg AM		439			0			820			1124	
Future Leg School		666			0			1651			1199	
Future Leg PM		886			0			1983			1385	
Destination Growth	1.4%	0.0%	1.3%	1.3%	1.3%	1.4%	0.0%	1.3%	1.3%	1.3%	1.4%	0.0%
Destination AM	350	0	95	0	0	0	41	651	0	0	1308	34
Destination School	498	0	177	0	0	0	91	1311	0	0	1212	87
Destination PM	641	0	257	0	0	0	120	1572	0	0	1375	116
Share AM	78.7%	0.0%	21.3%				5.9%	94.1%	0.0%	0.0%	97.5%	2.5%
Share School	73.8%	0.0%	26.2%				6.5%	93.5%	0.0%	0.0%	93.3%	6.7%
Share PM	71.4%	0.0%	28.6%				7.1%	92.9%	0.0%	0.0%	92.2%	7.8%
Balance Volume AM							0	0			265	6
Balance Volume School							0	0			156	15
Balance Volume PM							0	0			176	21
2042 AM	345	0	94	0	0	0	49	771	0	0	1361	34
2042 School	491	0	175	0	0	0	107	1544	0	0	1275	95
2042 PM	632	0	254	0	0	0	141	1842	0	0	1453	129
AM Growth factor	1.39	0.00	1.36	0.00	0.00	0.00	1.20	1.64	0.00	0.00	1.47	1.00
School Growth Factor	1.39	0.00	1.37	0.00	0.00	0.00	1.18	1.63	0.00	0.00	1.49	1.09
PM Growth Factor	1.39	0.00	1.37	0.00	0.00	0.00	1.18	1.62	0.00	0.00	1.49	1.11
AM AAGR	1.3%	0.0%	1.2%	0.0%	0.0%	0.0%	0.7%	2.0%	0.0%	0.0%	1.6%	0.0%
School AAGR	1.3%	0.0%	1.3%	0.0%	0.0%	0.0%	0.6%	2.0%	0.0%	0.0%	1.6%	0.4%
PM AAGR	1.3%	0.0%	1.3%	0.0%	0.0%	0.0%	0.6%	1.9%	0.0%	0.0%	1.6%	0.4%
AM Truck %	1.6%	0.0%	4.3%				26.8%	4.5%			2.7%	11.8%
School Truck %	2.3%	0.0%	0.8%				1.1%	2.6%			1.5%	12.6%
PM Truck %	0.6%	0.0%	0.0%				1.6%	1.2%			0.5%	7.8%

Washington Street

Start 2017  
End 2042  
years 25

	AM	School	PM
PHF	0.888	0.907	0.940

	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2017 AM	86	42	101	68	160	33	112	294	84	332	646	81
2017 School	348	141	184	117	80	28	272	494	123	119	417	67
2017 PM	421	244	259	159	81	38	363	690	135	132	443	83
Leg Sum AM		229			261			490			1059	
Leg Sum School		673			225			889			603	
Leg Sum PM		924			278			1188			658	
Leg Growth		2.94%			3.14%			1.30%			0.73%	
Future Leg AM		473			565			865			1270	
Future Leg School		1389			487			1719			723	
Future Leg PM		1907			602			2096			789	
Destination Growth	1.3%	3.1%	0.7%	0.7%	2.9%	1.3%	3.1%	0.7%	2.9%	2.9%	1.3%	3.1%
Destination AM	119	91	121	82	330	46	243	353	173	685	892	175
Destination School	481	305	221	140	165	39	589	593	254	246	576	145
Destination PM	581	529	311	191	167	52	786	828	279	272	612	180
Share AM	36.0%	27.5%	36.6%	17.9%	72.1%	10.0%	31.6%	45.9%	22.5%	39.1%	50.9%	10.0%
Share School	47.8%	30.3%	21.9%	40.7%	48.0%	11.3%	41.0%	41.3%	17.7%	25.4%	59.6%	15.0%
Share PM	40.9%	37.2%	21.9%	46.6%	40.7%	12.7%	41.5%	43.7%	14.7%	25.6%	57.5%	16.9%
Balance Volume AM							-30	-44	-21		250	
Balance Volume School							-131	-132	-56		50	
Balance Volume PM							-93	-98	-33		75	
2042 AM	170	130	173	101	407	57	243	353	174	497	897	127
2042 School	663	421	305	198	234	55	574	578	248	184	481	108
2042 PM	780	710	417	280	245	76	777	819	276	202	529	133
AM Growth factor	1.98	3.10	1.71	1.49	2.54	1.73	2.17	1.20	2.07	1.50	1.39	1.57
School Growth Factor	1.91	2.99	1.66	1.69	2.93	1.96	2.11	1.17	2.02	1.55	1.15	1.61
PM Growth Factor	1.85	2.91	1.61	1.76	3.02	2.00	2.14	1.19	2.04	1.53	1.19	1.60
AM AAGR	2.8%	4.6%	2.2%	1.6%	3.8%	2.2%	3.1%	0.7%	3.0%	1.6%	1.3%	1.8%
School AAGR	2.6%	4.5%	2.0%	2.1%	4.4%	2.7%	3.0%	0.6%	2.8%	1.8%	0.6%	1.9%
PM AAGR	2.5%	4.4%	1.9%	2.3%	4.5%	2.8%	3.1%	0.7%	2.9%	1.7%	0.7%	1.9%
AM Truck %	8.1%	7.1%	6.0%	4.4%	1.3%	3.0%	5.4%	4.4%	4.8%	0.3%	2.4%	3.7%
School Truck %	0.9%	0.7%	4.8%	0.0%	3.8%	10.7%	0.7%	4.4%	1.6%	7.6%	4.8%	1.5%
PM Truck %	0.2%	0.4%	2.3%	0.0%	0.0%	0.0%	0.0%	1.3%	0.7%	3.1%	2.5%	3.6%

Intersection												
Int Delay, s/veh	50.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↑	↑		↕	
Traffic Vol, veh/h	0	2	1	956	4	33	0	27	646	21	17	0
Future Vol, veh/h	0	2	1	956	4	33	0	27	646	21	17	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	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	2	0	18	0	0	1	14	17	0
Mvmt Flow	0	2	1	1180	5	41	0	33	798	26	21	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	3	0	0	-	2409	3	2405	2389	26
Stage 1	-	-	-	-	-	-	-	3	-	2386	2386	-
Stage 2	-	-	-	-	-	-	-	2406	-	19	3	-
Critical Hdwy	4.1	-	-	4.12	-	-	-	6.5	6.21	7.24	6.67	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.5	-	6.24	5.67	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.5	-	6.24	5.67	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	-	4	3.309	3.626	4.153	3.3
Pot Cap-1 Maneuver	1575	-	-	1619	-	-	0	~ 33	1084	~ 21	31	1056
Stage 1	-	-	-	-	-	-	0	897	-	42	59	-
Stage 2	-	-	-	-	-	-	0	65	-	970	864	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1575	-	-	1619	-	-	-	~ 8	1084	-	~ 8	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 8	-	-	~ 8	-
Stage 1	-	-	-	-	-	-	-	897	-	42	~ 15	-
Stage 2	-	-	-	-	-	-	-	~ 16	-	247	864	-

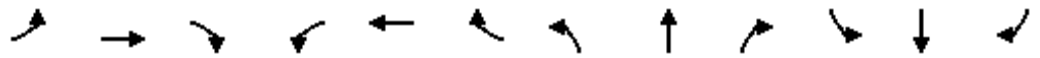
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	12.5	109.7	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	8	1084	1575	-	-	1619	-	-	-
HCM Lane V/C Ratio	4.167	0.736	-	-	-	0.729	-	-	-
HCM Control Delay (s)	\$ 2330	16.9	0	-	-	12.9	0	-	-
HCM Lane LOS	F	C	A	-	-	B	A	-	-
HCM 95th %tile Q(veh)	5.5	7	0	-	-	7.1	-	-	-

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

HCM 6th Signalized Intersection Summary  
 2: Valley Dr/Green Meadow Dr & Custer Ave/Custer Ave

Corridor 0 2042 AM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	494	22	273	591	94	6	41	169	219	206	337
Future Volume (veh/h)	142	494	22	273	591	94	6	41	169	219	206	337
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	1400	1400	1400	1500	1465	1465	1500	1500	1500	1488	1500	1500
Adj Flow Rate, veh/h	167	581	26	321	695	111	7	48	199	258	242	396
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	3	3	0	0	0	1	0	0
Cap, veh/h	182	603	27	227	559	89	72	52	216	225	147	241
Arrive On Green	0.09	0.45	0.45	0.12	0.60	0.60	0.01	0.20	0.20	0.09	0.29	0.29
Sat Flow, veh/h	1333	1330	60	1429	1233	197	1429	255	1055	1417	512	837
Grp Volume(v), veh/h	167	0	607	321	0	806	7	0	247	258	0	638
Grp Sat Flow(s),veh/h/ln	1333	0	1389	1429	0	1429	1429	0	1310	1417	0	1349
Q Serve(g_s), s	9.4	0.0	50.9	11.0	0.0	54.4	0.5	0.0	22.2	11.0	0.0	34.6
Cycle Q Clear(g_c), s	9.4	0.0	50.9	11.0	0.0	54.4	0.5	0.0	22.2	11.0	0.0	34.6
Prop In Lane	1.00		0.04	1.00		0.14	1.00		0.81	1.00		0.62
Lane Grp Cap(c), veh/h	182	0	630	227	0	648	72	0	268	225	0	388
V/C Ratio(X)	0.92	0.00	0.96	1.41	0.00	1.24	0.10	0.00	0.92	1.15	0.00	1.64
Avail Cap(c_a), veh/h	182	0	630	227	0	648	191	0	295	225	0	388
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.09	0.00	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	31.8	26.9	0.0	23.8	39.8	0.0	46.7	41.2	0.0	42.7
Incr Delay (d2), s/veh	43.6	0.0	28.0	188.1	0.0	110.9	0.6	0.0	30.9	106.2	0.0	300.4
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	5.1	0.0	20.9	15.0	0.0	34.3	0.2	0.0	9.6	9.0	0.0	43.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	76.1	0.0	59.8	215.0	0.0	134.7	40.4	0.0	77.7	147.4	0.0	343.1
LnGrp LOS	E	A	E	F	A	F	D	A	E	F	A	F
Approach Vol, veh/h		774			1127			254				896
Approach Delay, s/veh		63.3			157.6			76.7				286.8
Approach LOS		E			F			E				F
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	60.4	5.0	39.6	15.0	60.4	15.0	29.6				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	11.0	52.0	11.0	27.0	11.0	52.0	11.0	27.0				
Max Q Clear Time (g_c+I1), s	13.0	52.9	2.5	36.6	11.4	56.4	13.0	24.2				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	164.9
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
3: Benton Ave & Custer Ave

Corridor 0 2042 AM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	712	168	262	852	66	66	38	260	171	87	50
Future Volume (veh/h)	7	712	168	262	852	66	66	38	260	171	87	50
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	1400	1389	1389	1477	1477	1477	1453	1371	1477	1465	1500	1500
Adj Flow Rate, veh/h	8	818	193	301	979	76	76	44	299	197	100	57
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	1	1	2	2	2	4	11	2	3	0	0
Cap, veh/h	60	727	616	236	923	72	295	310	440	370	203	116
Arrive On Green	0.52	0.52	0.52	0.08	0.45	0.45	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	761	1389	1177	1406	1353	105	1815	1371	1251	1544	897	511
Grp Volume(v), veh/h	8	818	193	301	0	1055	76	44	299	197	0	157
Grp Sat Flow(s),veh/h/ln	761	1389	1177	1406	0	1458	1815	1371	1251	1544	0	1408
Q Serve(g_s), s	0.0	62.8	11.2	15.0	0.0	81.8	4.6	3.1	24.4	14.0	0.0	11.7
Cycle Q Clear(g_c), s	62.8	62.8	11.2	15.0	0.0	81.8	16.2	3.1	24.4	17.1	0.0	11.7
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	60	727	616	236	0	994	295	310	440	370	0	319
V/C Ratio(X)	0.13	1.12	0.31	1.28	0.00	1.06	0.26	0.14	0.68	0.53	0.00	0.49
Avail Cap(c_a), veh/h	60	727	616	236	0	994	353	354	480	419	0	364
HCM Platoon Ratio	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.12	0.12	0.12	0.09	0.00	0.09	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	60.0	28.6	16.3	42.9	0.0	33.0	47.5	37.1	33.2	43.9	0.0	40.4
Incr Delay (d2), s/veh	0.6	58.6	0.2	127.6	0.0	30.1	0.5	0.2	3.5	1.2	0.0	1.2
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	0.3	31.3	3.0	15.7	0.0	37.8	2.1	1.0	7.7	5.5	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	87.2	16.4	170.5	0.0	63.1	47.9	37.3	36.6	45.1	0.0	41.6
LnGrp LOS	E	F	B	F	A	F	D	D	D	D	A	D
Approach Vol, veh/h		1019			1356			419			354	
Approach Delay, s/veh		73.6			87.0			38.8			43.6	
Approach LOS		E			F			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	19.0	68.8		32.2		87.8		32.2				
Change Period (Y+Rc), s	4.0	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	59.0		31.0		78.0		31.0				
Max Q Clear Time (g_c+117), s	11.0	64.8		19.1		83.8		26.4				
Green Ext Time (p_c), s	0.0	0.0		1.2		0.0		0.7				

Intersection Summary

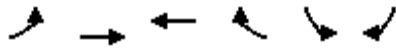
HCM 6th Ctrl Delay	71.3
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

HCM 6th Signalized Intersection Summary  
4: Custer Ave & Cooney Dr

Corridor 0 2042 AM  
10/08/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	1131	1166	55	94	6
Future Volume (veh/h)	12	1131	1166	55	94	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
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1400	1378	1477	1477	1500	1500
Adj Flow Rate, veh/h	13	1216	1254	59	101	6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	2	0	0
Cap, veh/h	60	1127	1143	54	121	7
Arrive On Green	0.82	0.82	0.82	0.82	0.09	0.09
Sat Flow, veh/h	595	1378	1399	66	1327	79
Grp Volume(v), veh/h	13	1216	0	1313	108	0
Grp Sat Flow(s),veh/h/ln	595	1378	0	1465	1419	0
Q Serve(g_s), s	0.0	98.1	0.0	98.1	9.0	0.0
Cycle Q Clear(g_c), s	98.1	98.1	0.0	98.1	9.0	0.0
Prop In Lane	1.00			0.04	0.94	0.06
Lane Grp Cap(c), veh/h	60	1127	0	1197	129	0
V/C Ratio(X)	0.22	1.08	0.00	1.10	0.84	0.00
Avail Cap(c_a), veh/h	60	1127	0	1197	319	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.00	0.09	1.00	0.00
Uniform Delay (d), s/veh	60.0	11.0	0.0	11.0	53.7	0.0
Incr Delay (d2), s/veh	1.0	38.2	0.0	45.0	13.1	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	0.4	30.4	0.0	34.6	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.0	49.1	0.0	55.9	66.8	0.0
LnGrp LOS	E	F	A	F	E	A
Approach Vol, veh/h		1229	1313		108	
Approach Delay, s/veh		49.3	55.9		66.8	
Approach LOS		D	E		E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		104.1		15.9		104.1
Change Period (Y+Rc), s		6.0		5.0		6.0
Max Green Setting (Gmax), s		82.0		27.0		82.0
Max Q Clear Time (g_c+I1), s		100.1		11.0		100.1
Green Ext Time (p_c), s		0.0		0.2		0.0

Intersection Summary

HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



HCM 6th Signalized Intersection Summary  
5: McHugh Dr & Custer Ave

Corridor 0 2042 AM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	159	959	38	83	829	98	90	65	111	287	129	287
Future Volume (veh/h)	159	959	38	83	829	98	90	65	111	287	129	287
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		No		No
Adj Sat Flow, veh/h/ln	1400	1378	1378	1500	1453	1453	1500	1500	1500	1488	1500	1500
Adj Flow Rate, veh/h	171	1031	41	89	891	105	97	70	119	309	139	309
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	2	0	4	4	0	0	0	1	0	0
Cap, veh/h	182	623	25	191	604	71	158	92	157	284	86	192
Arrive On Green	0.06	0.31	0.31	0.09	0.47	0.47	0.07	0.19	0.19	0.09	0.21	0.21
Sat Flow, veh/h	1333	1316	52	1429	1276	150	1429	499	848	1417	414	920
Grp Volume(v), veh/h	171	0	1072	89	0	996	97	0	189	309	0	448
Grp Sat Flow(s),veh/h/ln	1333	0	1369	1429	0	1426	1429	0	1347	1417	0	1334
Q Serve(g_s), s	9.9	0.0	56.8	3.5	0.0	56.8	6.5	0.0	16.0	11.0	0.0	25.0
Cycle Q Clear(g_c), s	9.9	0.0	56.8	3.5	0.0	56.8	6.5	0.0	16.0	11.0	0.0	25.0
Prop In Lane	1.00		0.04	1.00		0.11	1.00		0.63	1.00		0.69
Lane Grp Cap(c), veh/h	182	0	648	191	0	675	158	0	250	284	0	278
V/C Ratio(X)	0.94	0.00	1.66	0.47	0.00	1.48	0.61	0.00	0.76	1.09	0.00	1.61
Avail Cap(c_a), veh/h	182	0	648	191	0	675	191	0	281	284	0	278
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.09	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	0.0	41.3	25.6	0.0	31.6	37.9	0.0	46.3	45.9	0.0	47.5
Incr Delay (d2), s/veh	9.2	0.0	295.6	8.0	0.0	222.3	4.0	0.0	9.4	78.4	0.0	291.3
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	5.7	0.0	73.0	1.6	0.0	60.5	2.5	0.0	6.0	10.6	0.0	30.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	336.9	33.5	0.0	253.9	41.9	0.0	55.7	124.3	0.0	338.8
LnGrp LOS	D	A	F	C	A	F	D	A	E	F	A	F
Approach Vol, veh/h		1243			1085			286			757	
Approach Delay, s/veh		296.7			235.8			51.0			251.3	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.0	62.8	12.2	30.0	15.0	62.8	15.0	27.2				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	15.0	54.0	11.0	25.0	11.0	54.0	11.0	25.0				
Max Q Clear Time (g_c+1/5), s	15.0	58.8	8.5	27.0	11.9	58.8	13.0	18.0				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay	246.1
HCM 6th LOS	F

Intersection												
Int Delay, s/veh	15.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	10	1229	93	60	1039	15	24	5	83	5	15	10
Future Vol, veh/h	10	1229	93	60	1039	15	24	5	83	5	15	10
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	500	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	10	2	0	0	0	0	0	0	0
Mvmt Flow	11	1366	103	67	1154	17	27	6	92	6	17	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1171	0	0	1469	0	0	2751	2745	1418	2786	2788	1163
Stage 1	-	-	-	-	-	-	1440	1440	-	1297	1297	-
Stage 2	-	-	-	-	-	-	1311	1305	-	1489	1491	-
Critical Hdwy	4.1	-	-	4.2	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	604	-	-	436	-	-	~ 13	20	170	12	19	239
Stage 1	-	-	-	-	-	-	167	200	-	201	234	-
Stage 2	-	-	-	-	-	-	197	232	-	156	189	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	604	-	-	436	-	-	-	17	170	~ 4	~ 16	239
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	17	-	~ 4	~ 16	-
Stage 1	-	-	-	-	-	-	164	196	-	197	198	-
Stage 2	-	-	-	-	-	-	146	196	-	68	186	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.8		\$ 1299.7
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	604	-	-	436	-	-	13
HCM Lane V/C Ratio	-	0.018	-	-	0.153	-	-	2.564
HCM Control Delay (s)	-	11.1	-	-	14.7	-	-	\$ 1299.7
HCM Lane LOS	-	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	-	0.1	-	-	0.5	-	-	5

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

HCM 6th Signalized Intersection Summary  
 7: Montana Ave & Custer Ave

Corridor 0 2042 AM  
 10/08/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	834	243	270	825	267	144	194	75	432	647	138
Future Volume (veh/h)	118	834	243	270	825	267	144	194	75	432	647	138
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	1389	1367	1378	1477	1453	1477	1465	1477	1442	1477	1488	1488
Adj Flow Rate, veh/h	136	959	279	310	948	307	166	223	86	497	744	159
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	1	3	2	2	4	2	3	2	5	2	1	1
Cap, veh/h	167	773	447	353	509	630	173	701	463	569	740	158
Arrive On Green	0.08	0.30	0.30	0.17	0.47	0.47	0.08	0.25	0.25	0.15	0.32	0.32
Sat Flow, veh/h	1323	2598	1168	2728	1453	1251	1395	2806	1222	1406	2318	495
Grp Volume(v), veh/h	136	959	279	310	948	307	166	223	86	497	454	449
Grp Sat Flow(s),veh/h/ln	1323	1299	1168	1364	1453	1251	1395	1403	1222	1406	1414	1399
Q Serve(g_s), s	9.2	38.7	25.2	14.4	45.5	19.3	11.0	8.4	6.1	20.0	41.5	41.5
Cycle Q Clear(g_c), s	9.2	38.7	25.2	14.4	45.5	19.3	11.0	8.4	6.1	20.0	41.5	41.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	167	773	447	353	509	630	173	701	463	569	451	447
V/C Ratio(X)	0.81	1.24	0.62	0.88	1.86	0.49	0.96	0.32	0.19	0.87	1.01	1.01
Avail Cap(c_a), veh/h	167	773	447	420	509	630	173	701	463	569	451	447
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	45.6	32.6	52.8	34.7	17.1	38.0	39.7	26.9	38.5	44.3	44.3
Incr Delay (d2), s/veh	24.7	118.9	2.4	1.8	389.4	0.0	55.5	1.2	0.9	13.8	43.7	44.0
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	4.0	25.0	7.3	4.7	69.1	4.7	6.6	3.0	1.9	9.7	19.6	19.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.2	164.6	35.0	54.7	424.2	17.1	93.5	40.9	27.8	52.3	88.0	88.3
LnGrp LOS	E	F	D	D	F	B	F	D	C	D	F	F
Approach Vol, veh/h		1374			1565			475			1400	
Approach Delay, s/veh		127.7			271.1			56.9			75.4	
Approach LOS		F			F			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	39.0	21.8	45.2	15.0	48.0	15.0	52.0				
Change Period (Y+Rc), s	4.0	6.5	5.0	6.5	4.0	6.5	4.0	6.5				
Max Green Setting (Gmax), s	20.0	32.5	20.0	35.5	11.0	41.5	11.0	45.5				
Max Q Clear Time (g_c+I1), s	22.0	10.4	16.4	40.7	13.0	43.5	11.2	47.5				
Green Ext Time (p_c), s	0.0	1.0	0.4	0.0	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				152.1								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
8: Sanders St & Custer Ave

Corridor 0 2042 AM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1135	79	221	1271	166	35	51	71	140	51	59
Future Volume (veh/h)	131	1135	79	221	1271	166	35	51	71	140	51	59
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	1367	1367	1400	1488	1465	1465	1465	1500	1500	1477	1477	1383
Adj Flow Rate, veh/h	156	1351	94	263	1513	198	42	61	85	167	61	70
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, %	3	3	0	1	3	3	3	0	0	2	2	10
Cap, veh/h	176	1643	751	285	1616	209	260	219	185	260	215	171
Arrive On Green	0.05	0.42	0.42	0.06	0.43	0.43	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1302	2598	1186	1417	2479	320	1874	1500	1271	1863	1477	1172
Grp Volume(v), veh/h	156	1351	94	263	841	870	42	61	85	167	61	70
Grp Sat Flow(s),veh/h/ln	1302	1299	1186	1417	1392	1407	1874	1500	1271	1863	1477	1172
Q Serve(g_s), s	7.6	60.0	6.3	10.0	74.5	77.4	2.7	4.7	8.0	11.4	4.8	7.1
Cycle Q Clear(g_c), s	7.6	60.0	6.3	10.0	74.5	77.4	7.4	4.7	8.0	16.1	4.8	7.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	1643	751	285	907	917	260	219	185	260	215	171
V/C Ratio(X)	0.89	0.82	0.13	0.92	0.93	0.95	0.16	0.28	0.46	0.64	0.28	0.41
Avail Cap(c_a), veh/h	238	1643	751	325	907	917	491	404	342	489	398	316
HCM Platoon Ratio	0.66	0.66	0.66	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.28	0.28	0.28	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.4	31.4	15.8	32.9	34.1	34.9	52.8	49.4	50.8	56.6	49.5	50.4
Incr Delay (d2), s/veh	2.9	0.5	0.0	10.9	6.0	7.6	0.2	0.5	1.3	2.0	0.5	1.2
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	5.2	19.5	1.7	6.2	27.2	29.0	1.3	1.8	2.6	5.6	1.8	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	31.8	15.8	43.8	40.1	42.6	53.0	49.9	52.1	58.6	50.0	51.6
LnGrp LOS	D	C	B	D	D	D	D	D	D	E	D	D
Approach Vol, veh/h	1601			1974			188			298		
Approach Delay, s/veh	31.9			41.7			51.6			55.2		
Approach LOS	C			D			D			E		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	16.3	88.7	25.0		13.8	91.2	25.0					
Change Period (Y+Rc), s	4.0	6.5	6.0		4.0	6.5	6.0					
Max Green Setting (Gmax), s	16.0	62.5	35.0		16.0	62.5	35.0					
Max Q Clear Time (g_c+1/2), s	11.0	62.0	18.1		9.6	79.4	10.0					
Green Ext Time (p_c), s	0.3	0.4	0.9		0.2	0.0	0.6					

Intersection Summary

HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

HCM 6th Signalized Intersection Summary  
 9: I-15 SB On & Custer Ave & I-15 SB Off

Corridor 0 2042 AM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL2	SBL	SBR	NWL	NWR
Lane Configurations		↑↑	↑		↑↑	↑	↑		↑		
Traffic Volume (veh/h)	0	716	554	0	1331	473	104	0	345	0	0
Future Volume (veh/h)	0	716	554	0	1331	473	104	0	345	0	0
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	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No		No		No		No			
Adj Sat Flow, veh/h/ln	0	1378	1378	0	1477	1477	1477	1477	1477		
Adj Flow Rate, veh/h	0	842	0	0	1566	556	122	122	406		
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	0	2	2	0	2	2	2	2	2		
Cap, veh/h	0	1732		0	1856	828	355	355	316		
Arrive On Green	0.00	0.44	0.00	0.00	0.44	0.44	0.25	0.25	0.25		
Sat Flow, veh/h	0	2687	1168	0	2879	1251	1406	1406	1251		
Grp Volume(v), veh/h	0	842	0	0	1566	556	122	122	406		
Grp Sat Flow(s),veh/h/ln	0	1309	1168	0	1403	1251	1406	1406	1251		
Q Serve(g_s), s	0.0	29.9	0.0	0.0	64.7	46.0	9.2	9.2	32.8		
Cycle Q Clear(g_c), s	0.0	29.9	0.0	0.0	64.7	46.0	9.2	9.2	32.8		
Prop In Lane	0.00		1.00	0.00		1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1732		0	1856	828	355	355	316		
V/C Ratio(X)	0.00	0.49		0.00	0.84	0.67	0.34	0.34	1.29		
Avail Cap(c_a), veh/h	0	1732		0	1856	828	355	355	316		
HCM Platoon Ratio	1.00	0.66	0.66	1.00	0.66	0.66	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.09	0.00	0.00	0.38	0.38	1.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	20.8	0.0	0.0	30.6	25.4	39.8	39.8	48.6		
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	1.9	1.7	0.6	0.6	150.6		
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	0.0	9.7	0.0	0.0	23.0	31.7	3.3	3.3	23.5		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	0.0	20.9	0.0	0.0	32.6	27.0	40.4	40.4	199.2		
LnGrp LOS		A	C		A	C	C	D	D	F	
Approach Vol, veh/h		842	A		2122		528	528			
Approach Delay, s/veh		20.9			31.1		162.5	162.5			
Approach LOS		C			C		F	F			
Timer - Assigned Phs		2		4		6					
Phs Duration (G+Y+Rc), s		92.0		38.0		92.0					
Change Period (Y+Rc), s		* 6		* 5.2		* 6					
Max Green Setting (Gmax), s		* 86		* 33		* 86					
Max Q Clear Time (g_c+I1), s		0.0		34.8		0.0					
Green Ext Time (p_c), s		0.0		0.0		0.0					

Intersection Summary

HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 10: I-15 NB Off/I-15 NB On & Custer Ave

Corridor 0 2042 AM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘	↖	↗			
Traffic Volume (veh/h)	49	771	0	0	1361	34	345	0	94	0	0	0
Future Volume (veh/h)	49	771	0	0	1361	34	345	0	94	0	0	0
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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1105	1356	0	0	1465	1360	1477	1500	1453			
Adj Flow Rate, veh/h	56	886	0	0	1564	39	397	0	108			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87			
Percent Heavy Veh, %	27	4	0	0	3	12	2	0	4			
Cap, veh/h	56	1269	0	0	1370	567	481	0	211			
Arrive On Green	0.00	0.82	0.00	0.00	0.82	0.82	0.17	0.00	0.17			
Sat Flow, veh/h	1053	2645	0	0	2857	1152	2813	0	1232			
Grp Volume(v), veh/h	56	886	0	0	1564	39	397	0	108			
Grp Sat Flow(s),veh/h/ln	1053	1289	0	0	1392	1152	1406	0	1232			
Q Serve(g_s), s	0.1	19.0	0.0	0.0	64.0	0.9	17.7	0.0	10.4			
Cycle Q Clear(g_c), s	0.1	19.0	0.0	0.0	64.0	0.9	17.7	0.0	10.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	56	1269	0	0	1370	567	481	0	211			
V/C Ratio(X)	1.00	0.70	0.00	0.00	1.14	0.07	0.83	0.00	0.51			
Avail Cap(c_a), veh/h	144	1566	0	0	1370	567	861	0	377			
HCM Platoon Ratio	1.66	1.66	1.00	1.00	1.66	1.66	1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00	0.00	0.09	0.09	1.00	0.00	1.00			
Uniform Delay (d), s/veh	64.0	7.8	0.0	0.0	11.9	6.1	52.0	0.0	49.0			
Incr Delay (d2), s/veh	44.2	0.8	0.0	0.0	64.6	0.0	2.7	0.0	1.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.5	2.9	0.0	0.0	16.8	0.2	6.5	0.0	3.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	108.3	8.5	0.0	0.0	76.5	6.1	54.7	0.0	50.4			
LnGrp LOS	F	A	A	A	F	A	D	A	D			
Approach Vol, veh/h		942			1603			505				
Approach Delay, s/veh		14.5			74.7			53.8				
Approach LOS		B			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		70.0			0.0	70.0		27.4				
Change Period (Y+Rc), s		6.0			4.0	6.0		5.2				
Max Green Setting (Gmax), s		79.0			11.0	64.0		39.8				
Max Q Clear Time (g_c+1), s		0.0			0.0	0.0		19.7				
Green Ext Time (p_c), s		0.0			0.0	0.0		2.5				

Intersection Summary

HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
 11: Washington St & Custer Ave

Corridor 0 2042 AM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗	↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	243	353	174	497	897	127	170	130	173	101	407	57
Future Volume (veh/h)	243	353	174	497	897	127	170	130	173	101	407	57
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		No		No
Adj Sat Flow, veh/h/ln	1345	1356	1345	1500	1477	1453	1406	1418	1430	1453	1488	1465
Adj Flow Rate, veh/h	273	397	196	558	1008	143	191	146	194	113	457	64
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	4	5	0	2	4	8	7	6	4	1	3
Cap, veh/h	213	770	474	489	946	507	211	431	564	502	389	477
Arrive On Green	0.08	0.20	0.20	0.16	0.34	0.34	0.12	0.30	0.30	0.07	0.26	0.26
Sat Flow, veh/h	1281	2577	1140	1429	2806	1232	1339	1418	1212	1384	1488	1241
Grp Volume(v), veh/h	273	397	196	558	1008	143	191	146	194	113	457	64
Grp Sat Flow(s),veh/h/ln	1281	1289	1140	1429	1403	1232	1339	1418	1212	1384	1488	1241
Q Serve(g_s), s	16.0	17.9	16.9	21.0	43.9	10.1	13.1	10.4	13.2	7.7	34.0	4.3
Cycle Q Clear(g_c), s	16.0	17.9	16.9	21.0	43.9	10.1	13.1	10.4	13.2	7.7	34.0	4.3
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	213	770	474	489	946	507	211	431	564	502	389	477
V/C Ratio(X)	1.28	0.52	0.41	1.14	1.07	0.28	0.90	0.34	0.34	0.23	1.17	0.13
Avail Cap(c_a), veh/h	213	770	474	489	946	507	220	431	564	570	389	477
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	43.8	31.1	36.4	43.1	25.5	32.9	35.1	22.1	31.3	48.0	26.0
Incr Delay (d2), s/veh	154.3	2.2	2.3	86.0	48.2	1.4	34.5	0.3	0.3	0.2	102.2	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	14.3	6.2	5.2	19.4	21.0	3.1	6.1	3.6	3.7	2.6	23.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	192.4	45.9	33.4	122.4	91.3	26.9	67.3	35.5	22.4	31.5	150.2	26.0
LnGrp LOS	F	D	C	F	F	C	E	D	C	C	F	C
Approach Vol, veh/h		866			1709			531			634	
Approach Delay, s/veh		89.3			96.0			42.1			116.5	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	25.0	45.9	19.1	40.0	20.0	50.9	13.6	45.5				
Change Period (Y+Rc), s	4.0	* 7	4.0	6.0	4.0	* 7	4.0	6.0				
Max Green Setting (Gmax), s	21.0	* 38	16.0	34.0	16.0	* 43	16.0	34.0				
Max Q Clear Time (g_c+Q), s	20.0	19.9	15.1	36.0	18.0	45.9	9.7	15.2				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.0	0.0	0.1	1.1				

Intersection Summary

HCM 6th Ctrl Delay	90.3
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	1612											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	7	3	590	4	40	1	41	880	35	83	0
Future Vol, veh/h	2	7	3	590	4	40	1	41	880	35	83	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	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	0	14	0	2	0	0	0	0	1	0	0	0
Mvmt Flow	2	8	4	702	5	48	1	49	1048	42	99	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	12	0	0	1497	1471	10	1472	1449	29
Stage 1	-	-	-	-	-	-	14	14	-	1433	1433	-
Stage 2	-	-	-	-	-	-	1483	1457	-	39	16	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.1	6.5	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.218	-	-	3.5	4	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1566	-	-	1607	-	-	102	128	1074	106	132	1052
Stage 1	-	-	-	-	-	-	1011	888	-	168	201	-
Stage 2	-	-	-	-	-	-	157	196	-	981	886	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1566	-	-	1607	-	-	70	1074	~1	~72	1052	
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	-	~1	~72	-	
Stage 1	-	-	-	-	-	-	1010	887	-	168	110	-
Stage 2	-	-	-	-	-	-	9	107	-	~23	885	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	8.3		\$ 22987.3
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1074	1566	-	-	1607	-	-	3
HCM Lane V/C Ratio	-	0.975	0.002	-	-	0.437	-	-	46.825
HCM Control Delay (s)	-	41.6	7.3	0	-	9	0		\$ 22987.3
HCM Lane LOS	-	E	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	18.2	0	-	-	2.3	-	-	19.8

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



HCM 6th Signalized Intersection Summary  
 2: Valley Dr/Green Meadow Dr & Custer Ave/Custer Ave

Corridor 0 2042 School  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	605	11	131	524	214	8	73	199	142	36	119
Future Volume (veh/h)	295	605	11	131	524	214	8	73	199	142	36	119
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	1339	1339	1339	1500	1465	1465	1500	1500	1500	1465	1465	1465
Adj Flow Rate, veh/h	335	688	12	149	595	243	9	83	226	161	41	135
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, %	1	1	1	0	3	3	0	0	0	3	3	3
Cap, veh/h	177	588	10	169	428	175	265	80	218	188	92	302
Arrive On Green	0.09	0.45	0.45	0.10	0.58	0.58	0.01	0.22	0.22	0.09	0.31	0.31
Sat Flow, veh/h	1276	1312	23	1429	989	404	1429	356	969	1395	300	987
Grp Volume(v), veh/h	335	0	700	149	0	838	9	0	309	161	0	176
Grp Sat Flow(s),veh/h/ln	1276	0	1335	1429	0	1392	1429	0	1325	1395	0	1287
Q Serve(g_s), s	11.0	0.0	53.8	7.2	0.0	52.0	0.6	0.0	27.0	10.4	0.0	13.2
Cycle Q Clear(g_c), s	11.0	0.0	53.8	7.2	0.0	52.0	0.6	0.0	27.0	10.4	0.0	13.2
Prop In Lane	1.00		0.02	1.00		0.29	1.00		0.73	1.00		0.77
Lane Grp Cap(c), veh/h	177	0	599	169	0	603	265	0	298	188	0	394
V/C Ratio(X)	1.89	0.00	1.17	0.88	0.00	1.39	0.03	0.00	1.04	0.86	0.00	0.45
Avail Cap(c_a), veh/h	177	0	599	191	0	603	381	0	298	188	0	394
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.41	0.00	0.41	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.3	0.0	33.1	27.9	0.0	25.4	35.3	0.0	46.5	33.6	0.0	33.5
Incr Delay (d2), s/veh	422.5	0.0	93.1	16.0	0.0	179.3	0.1	0.0	61.8	30.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.0	0.0	31.8	2.9	0.0	43.8	0.2	0.0	14.0	5.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	455.8	0.0	126.2	43.9	0.0	204.7	35.4	0.0	108.3	63.9	0.0	34.3
LnGrp LOS	F	A	F	D	A	F	D	A	F	E	A	C
Approach Vol, veh/h		1035			987			318				337
Approach Delay, s/veh		232.9			180.5			106.2				48.4
Approach LOS		F			F			F				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.2	59.8	5.3	41.7	15.0	58.0	15.0	32.0				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	11.0	52.0	11.0	27.0	11.0	52.0	11.0	27.0				
Max Q Clear Time (g_c+I1), s	9.2	55.8	2.6	15.2	13.0	54.0	12.4	29.0				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	175.3											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
3: Benton Ave & Custer Ave

Corridor 0 2042 School  
10/08/2018



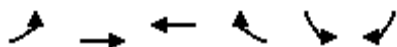
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	833	108	360	718	88	122	68	426	68	39	19
Future Volume (veh/h)	24	833	108	360	718	88	122	68	426	68	39	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	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	1350	1339	1350	1500	1477	1477	1500	1477	1488	1500	1465	1465
Adj Flow Rate, veh/h	28	957	124	414	825	101	140	78	490	78	45	22
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	1	0	0	2	2	0	2	1	0	3	3
Cap, veh/h	68	659	563	239	839	103	296	381	483	207	240	117
Arrive On Green	0.49	0.49	0.49	0.08	0.43	0.43	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	436	1339	1144	1429	1290	158	1070	1477	1261	676	929	454
Grp Volume(v), veh/h	28	957	124	414	0	926	140	78	490	78	0	67
Grp Sat Flow(s),veh/h/ln	436	1339	1144	1429	0	1448	1070	1477	1261	676	0	1383
Q Serve(g_s), s	2.2	59.0	7.4	15.0	0.0	75.8	14.1	5.0	31.0	12.2	0.0	4.5
Cycle Q Clear(g_c), s	59.0	59.0	7.4	15.0	0.0	75.8	18.6	5.0	31.0	17.2	0.0	4.5
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	1.00		0.33
Lane Grp Cap(c), veh/h	68	659	563	239	0	941	296	381	483	207	0	357
V/C Ratio(X)	0.41	1.45	0.22	1.74	0.00	0.98	0.47	0.20	1.01	0.38	0.00	0.19
Avail Cap(c_a), veh/h	68	659	563	239	0	941	296	381	483	207	0	357
HCM Platoon Ratio	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.09	0.00	0.09	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.7	30.5	17.4	42.1	0.0	33.6	41.9	34.8	37.0	41.6	0.0	34.7
Incr Delay (d2), s/veh	1.7	204.7	0.1	332.5	0.0	5.8	1.2	0.3	44.3	1.1	0.0	0.3
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	0.9	55.4	1.9	25.5	0.0	28.7	3.8	1.8	19.6	2.1	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.3	235.2	17.5	374.6	0.0	39.4	43.1	35.1	81.3	42.7	0.0	34.9
LnGrp LOS	E	F	B	F	A	D	D	D	F	D	A	C
Approach Vol, veh/h		1109			1340			708			145	
Approach Delay, s/veh		206.5			143.0			68.7			39.1	
Approach LOS		F			F			E			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	19.0	65.0		36.0		84.0		36.0				
Change Period (Y+Rc), s	4.0	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	59.0		31.0		78.0		31.0				
Max Q Clear Time (g_c+I1), s	11.0	61.0		19.2		77.8		33.0				
Green Ext Time (p_c), s	0.0	0.0		0.7		0.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	143.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
4: Custer Ave & Cooney Dr

Corridor 0 2042 School  
10/08/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	11	1311	1129	55	87	18
Future Volume (veh/h)	11	1311	1129	55	87	18
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	1350	1339	1488	1488	1500	1500
Adj Flow Rate, veh/h	12	1441	1241	60	96	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	1	1	1	0	0
Cap, veh/h	60	1084	1140	55	114	24
Arrive On Green	0.54	0.54	0.81	0.81	0.10	0.10
Sat Flow, veh/h	306	1339	1408	68	1148	239
Grp Volume(v), veh/h	12	1441	0	1301	117	0
Grp Sat Flow(s),veh/h/ln	306	1339	0	1476	1400	0
Q Serve(g_s), s	0.0	97.1	0.0	97.1	9.9	0.0
Cycle Q Clear(g_c), s	97.1	97.1	0.0	97.1	9.9	0.0
Prop In Lane	1.00			0.05	0.82	0.17
Lane Grp Cap(c), veh/h	60	1084	0	1195	138	0
V/C Ratio(X)	0.20	1.33	0.00	1.09	0.85	0.00
Avail Cap(c_a), veh/h	60	1084	0	1195	315	0
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	1.00	0.00
Uniform Delay (d), s/veh	76.0	27.5	0.0	11.4	53.2	0.0
Incr Delay (d2), s/veh	0.7	148.7	0.0	41.6	13.0	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	0.4	76.0	0.0	37.0	4.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.7	176.1	0.0	53.0	66.1	0.0
LnGrp LOS	E	F	A	F	E	A
Approach Vol, veh/h		1453	1301		117	
Approach Delay, s/veh		175.3	53.0		66.1	
Approach LOS		F	D		E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		103.1		16.9		103.1
Change Period (Y+Rc), s		6.0		5.0		6.0
Max Green Setting (Gmax), s		82.0		27.0		82.0
Max Q Clear Time (g_c+I1), s		99.1		11.9		99.1
Green Ext Time (p_c), s		0.0		0.2		0.0

Intersection Summary

HCM 6th Ctrl Delay	115.4
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
5: McHugh Dr & Custer Ave

Corridor 0 2042 School  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1134	62	36	900	120	109	61	92	202	43	175
Future Volume (veh/h)	203	1134	62	36	900	120	109	61	92	202	43	175
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		No		No
Adj Sat Flow, veh/h/ln	1350	1329	1329	1500	1477	1477	1500	1500	1500	1500	1500	1500
Adj Flow Rate, veh/h	228	1274	70	40	1011	135	122	69	103	227	48	197
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	2	0	2	2	0	0	0	0	0	0
Cap, veh/h	178	657	36	104	594	79	195	105	156	264	52	212
Arrive On Green	0.06	0.35	0.35	0.03	0.47	0.47	0.08	0.19	0.19	0.09	0.20	0.20
Sat Flow, veh/h	1286	1248	69	1429	1276	170	1429	543	811	1429	257	1054
Grp Volume(v), veh/h	228	0	1344	40	0	1146	122	0	172	227	0	245
Grp Sat Flow(s),veh/h/ln	1286	0	1317	1429	0	1446	1429	0	1354	1429	0	1310
Q Serve(g_s), s	11.0	0.0	63.2	1.7	0.0	55.9	8.1	0.0	14.1	11.0	0.0	22.0
Cycle Q Clear(g_c), s	11.0	0.0	63.2	1.7	0.0	55.9	8.1	0.0	14.1	11.0	0.0	22.0
Prop In Lane	1.00		0.05	1.00		0.12	1.00		0.60	1.00		0.80
Lane Grp Cap(c), veh/h	178	0	693	104	0	673	195	0	261	264	0	264
V/C Ratio(X)	1.28	0.00	1.94	0.39	0.00	1.70	0.63	0.00	0.66	0.86	0.00	0.93
Avail Cap(c_a), veh/h	178	0	693	191	0	673	207	0	282	264	0	273
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.09	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	39.1	28.7	0.0	32.1	36.5	0.0	44.8	42.0	0.0	47.1
Incr Delay (d2), s/veh	130.9	0.0	422.8	2.3	0.0	322.4	5.3	0.0	4.5	23.6	0.0	35.1
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	2.0	0.0	102.7	0.6	0.0	79.1	3.1	0.0	5.1	4.3	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	168.1	0.0	462.0	31.0	0.0	354.4	41.8	0.0	49.3	65.6	0.0	82.2
LnGrp LOS	F	A	F	C	A	F	D	A	D	E	A	F
Approach Vol, veh/h		1572			1186			294			472	
Approach Delay, s/veh		419.4			343.5			46.2			74.2	
Approach LOS		F			F			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	69.2	14.0	29.2	15.0	61.9	15.0	28.1				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	1.0	54.0	11.0	25.0	11.0	54.0	11.0	25.0				
Max Q Clear Time (g_c+1), s	1.0	65.2	10.1	24.0	13.0	57.9	13.0	16.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			316.5									
HCM 6th LOS			F									

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	10	1413	49	47	1061	15	28	5	112	5	15	10
Future Vol, veh/h	10	1413	49	47	1061	15	28	5	112	5	15	10
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	500	-	-	500	-	-	-	-	-	-	-	-
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, %	0	1	0	0	2	0	0	0	1	0	0	0
Mvmt Flow	11	1606	56	53	1206	17	32	6	127	6	17	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1223	0	0	1662	0	0	2991	2985	1634	3044	3005	1215
Stage 1	-	-	-	-	-	-	1656	1656	-	1321	1321	-
Stage 2	-	-	-	-	-	-	1335	1329	-	1723	1684	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	577	-	-	393	-	-	~9	14	~125	8	~14	223
Stage 1	-	-	-	-	-	-	125	157	-	195	228	-
Stage 2	-	-	-	-	-	-	191	226	-	114	152	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	577	-	-	393	-	-	-	12	~125	-	~12	223
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	12	-	-	~12	-
Stage 1	-	-	-	-	-	-	123	154	-	191	197	-
Stage 2	-	-	-	-	-	-	143	195	-	-	149	-

























Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	577	-	-	393	-	-	-
HCM Lane V/C Ratio	-	0.02	-	-	0.136	-	-	-
HCM Control Delay (s)	-	11.4	-	-	15.6	-	-	-
HCM Lane LOS	-	B	-	-	C	-	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.5	-	-	-

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

HCM 6th Signalized Intersection Summary  
7: Montana Ave & Custer Ave

Corridor 0 2042 School  
10/08/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	970	179	256	719	403	221	556	236	392	476	130
Future Volume (veh/h)	276	970	179	256	719	403	221	556	236	392	476	130
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	1350	1329	1350	1488	1477	1477	1488	1500	1500	1477	1488	1488
Adj Flow Rate, veh/h	294	1032	190	272	765	429	235	591	251	417	506	138
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	1	2	2	1	0	0	2	1	1
Cap, veh/h	185	868	546	311	527	613	263	750	478	272	579	157
Arrive On Green	0.11	0.34	0.34	0.15	0.47	0.47	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1286	2525	1144	2750	1477	1251	1417	2850	1271	1406	2198	596
Grp Volume(v), veh/h	294	1032	190	272	765	429	235	591	251	417	324	320
Grp Sat Flow(s),veh/h/ln	1286	1262	1144	1375	1477	1251	1417	1425	1271	1406	1414	1381
Q Serve(g_s), s	16.0	51.5	15.6	14.5	53.5	39.4	18.0	28.9	23.0	20.0	32.9	33.3
Cycle Q Clear(g_c), s	16.0	51.5	15.6	14.5	53.5	39.4	18.0	28.9	23.0	20.0	32.9	33.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	185	868	546	311	527	613	263	750	478	272	372	364
V/C Ratio(X)	1.59	1.19	0.35	0.87	1.45	0.70	0.89	0.79	0.52	1.53	0.87	0.88
Avail Cap(c_a), veh/h	185	868	546	458	527	613	263	751	478	272	372	364
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	49.2	24.6	62.7	39.4	24.1	37.6	51.3	36.3	40.2	52.8	52.9
Incr Delay (d2), s/veh	288.7	96.8	0.3	1.1	204.6	0.3	29.3	8.2	4.1	257.8	23.3	24.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.9	27.7	4.2	4.9	47.4	10.2	8.3	11.0	7.6	26.8	13.9	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	332.2	146.0	24.9	63.8	244.1	24.4	66.9	59.5	40.4	297.9	76.1	77.6
LnGrp LOS	F	F	C	E	F	C	E	E	D	F	E	E
Approach Vol, veh/h		1516			1466			1077			1061	
Approach Delay, s/veh		166.9			146.4			56.7			163.7	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	46.0	22.0	58.0	24.0	46.0	20.0	60.0				
Change Period (Y+Rc), s	4.0	6.5	5.0	6.5	4.0	6.5	4.0	6.5				
Max Green Setting (Gmax), s	20.0	39.5	25.0	43.5	20.0	39.5	16.0	53.5				
Max Q Clear Time (g_c+I1), s	22.0	30.9	16.5	53.5	20.0	35.3	18.0	55.5				
Green Ext Time (p_c), s	0.0	2.5	0.4	0.0	0.0	1.3	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				137.2								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
8: Sanders St & Custer Ave

Corridor 0 2042 School  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	1406	116	160	1220	270	98	77	240	367	90	124
Future Volume (veh/h)	158	1406	116	160	1220	270	98	77	240	367	90	124
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	1318	1329	1339	1477	1488	1488	1477	1500	1500	1488	1500	1477
Adj Flow Rate, veh/h	174	1545	127	176	1341	297	108	85	264	403	99	136
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	2	1	2	1	1	2	0	0	1	0	2
Cap, veh/h	190	1092	491	194	978	213	326	530	449	306	530	442
Arrive On Green	0.07	0.29	0.29	0.07	0.28	0.28	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1256	2525	1135	1406	2309	503	904	1500	1271	821	1500	1251
Grp Volume(v), veh/h	174	1545	127	176	812	826	108	85	264	403	99	136
Grp Sat Flow(s),veh/h/ln	1256	1262	1135	1406	1414	1398	904	1500	1271	821	1500	1251
Q Serve(g_s), s	14.9	64.9	12.9	13.5	63.5	63.5	14.1	5.8	25.4	47.2	6.9	11.8
Cycle Q Clear(g_c), s	14.9	64.9	12.9	13.5	63.5	63.5	20.9	5.8	25.4	53.0	6.9	11.8
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	190	1092	491	194	599	592	326	530	449	306	530	442
V/C Ratio(X)	0.92	1.41	0.26	0.91	1.36	1.40	0.33	0.16	0.59	1.32	0.19	0.31
Avail Cap(c_a), veh/h	224	1092	491	245	599	592	326	530	449	306	530	442
HCM Platoon Ratio	0.66	0.66	0.66	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	53.6	35.0	47.7	54.0	54.0	40.8	33.2	39.6	55.1	33.6	35.2
Incr Delay (d2), s/veh	5.1	187.1	0.1	18.5	166.4	183.8	0.4	0.1	1.7	163.5	0.1	0.3
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	7.0	49.5	3.8	7.8	50.8	53.1	3.2	2.2	8.3	25.9	2.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	240.7	35.2	66.2	220.4	237.9	41.3	33.4	41.3	218.6	33.7	35.5
LnGrp LOS	D	F	D	E	F	F	D	C	D	F	C	D
Approach Vol, veh/h		1846			1814			457			638	
Approach Delay, s/veh		208.8			213.4			39.8			150.9	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	71.4		59.0	21.0	70.0		59.0				
Change Period (Y+Rc), s	4.0	6.5		6.0	4.0	6.5		6.0				
Max Green Setting (Gmax), s	21.0	59.5		53.0	21.0	59.5		53.0				
Max Q Clear Time (g_c+1/5), s	11.5	66.9		55.0	16.9	65.5		27.4				
Green Ext Time (p_c), s	0.2	0.0		0.0	0.1	0.0		1.6				

Intersection Summary

HCM 6th Ctrl Delay	186.5
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
 9: I-15 SB On & Custer Ave & I-15 SB Off

Corridor 0 2042 School  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL2	SBL	SBR	NWL	NWR
Lane Configurations		↑↑	↑		↑↑	↑	↑		↑		
Traffic Volume (veh/h)	0	1559	433	0	1462	304	92	0	174	0	0
Future Volume (veh/h)	0	1559	433	0	1462	304	92	0	174	0	0
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	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No		No		No		No			
Adj Sat Flow, veh/h/ln	0	1339	1339	0	1477	1477	1231	1231	1430		
Adj Flow Rate, veh/h	0	1676	0	0	1572	327	99	99	187		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93		
Percent Heavy Veh, %	0	1	1	0	2	2	23	23	6		
Cap, veh/h	0	1915		0	2111	942	203	203	209		
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.50	0.17	0.17	0.17		
Sat Flow, veh/h	0	2612	1135	0	2879	1251	1172	1172	1212		
Grp Volume(v), veh/h	0	1676	0	0	1572	327	99	99	187		
Grp Sat Flow(s),veh/h/ln	0	1272	1135	0	1403	1251	1172	1172	1212		
Q Serve(g_s), s	0.0	87.9	0.0	0.0	67.1	23.8	11.4	11.4	22.6		
Cycle Q Clear(g_c), s	0.0	87.9	0.0	0.0	67.1	23.8	11.4	11.4	22.6		
Prop In Lane	0.00		1.00	0.00		1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	1915		0	2111	942	203	203	209		
V/C Ratio(X)	0.00	0.88		0.00	0.74	0.35	0.49	0.49	0.89		
Avail Cap(c_a), veh/h	0	1915		0	2111	942	389	389	402		
HCM Platoon Ratio	1.00	0.66	0.66	1.00	0.66	0.66	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.09	0.00	0.00	0.44	0.44	1.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	31.5	0.0	0.0	26.2	15.3	56.1	56.1	60.7		
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	1.1	0.4	1.8	1.8	12.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	28.0	0.0	0.0	23.8	20.6	3.5	3.5	7.7		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	0.0	32.1	0.0	0.0	27.3	15.8	57.9	57.9	73.0		
LnGrp LOS		A	C		A	C	B	E	E	E	
Approach Vol, veh/h		1676	A		1899		286	286			
Approach Delay, s/veh		32.1			25.3		67.8	67.8			
Approach LOS		C			C		E	E			
Timer - Assigned Phs		2		4		6					
Phs Duration (G+Y+Rc), s		118.9		31.1		118.9					
Change Period (Y+Rc), s		* 6		* 5.2		* 6					
Max Green Setting (Gmax), s		* 89		* 50		* 89					
Max Q Clear Time (g_c+I1), s		0.0		24.6		0.0					
Green Ext Time (p_c), s		0.0		1.3		0.0					

Intersection Summary

HCM 6th Ctrl Delay	31.4
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



HCM 6th Signalized Intersection Summary  
 10: I-15 NB Off/I-15 NB On & Custer Ave

Corridor 0 2042 School  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1544	0	0	1275	95	491	0	175	0	0	0
Future Volume (veh/h)	107	1544	0	0	1275	95	491	0	175	0	0	0
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			
Work Zone On Approach	No				No				No			
Adj Sat Flow, veh/h/ln	1339	1318	0	0	1477	1348	1477	1500	1488			
Adj Flow Rate, veh/h	114	1643	0	0	1356	101	522	0	186			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94			
Percent Heavy Veh, %	1	3	0	0	2	13	2	0	1			
Cap, veh/h	273	1792	0	0	1807	736	590	0	265			
Arrive On Green	0.07	1.00	0.00	0.00	1.00	1.00	0.21	0.00	0.21			
Sat Flow, veh/h	1276	2571	0	0	2879	1142	2813	0	1261			
Grp Volume(v), veh/h	114	1643	0	0	1356	101	522	0	186			
Grp Sat Flow(s),veh/h/ln	1276	1252	0	0	1403	1142	1406	0	1261			
Q Serve(g_s), s	4.5	0.0	0.0	0.0	0.0	0.0	27.0	0.0	20.5			
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.0	0.0	0.0	27.0	0.0	20.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	273	1792	0	0	1807	736	590	0	265			
V/C Ratio(X)	0.42	0.92	0.00	0.00	0.75	0.14	0.88	0.00	0.70			
Avail Cap(c_a), veh/h	420	1792	0	0	1807	736	803	0	360			
HCM Platoon Ratio	1.66	1.66	1.00	1.00	1.66	1.66	1.00	1.00	1.00			
Upstream Filter(I)	0.40	0.40	0.00	0.00	0.09	0.09	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.1	0.0	0.0	0.0	0.0	0.0	57.5	0.0	54.9			
Incr Delay (d2), s/veh	0.3	4.0	0.0	0.0	0.3	0.0	8.3	0.0	3.0			
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	1.1	1.0	0.0	0.0	0.1	0.0	10.4	0.0	6.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	4.0	0.0	0.0	0.3	0.0	65.8	0.0	57.9			
LnGrp LOS	A	A	A	A	A	A	E	A	E			
Approach Vol, veh/h	1757				1457				708			
Approach Delay, s/veh	4.2				0.3				63.7			
Approach LOS	A				A				E			
Timer - Assigned Phs	2				5		6		8			
Phs Duration (G+Y+Rc), s	113.3				10.7		102.6		36.7			
Change Period (Y+Rc), s	6.0				4.0		6.0		5.2			
Max Green Setting (Gmax), s	96.0				24.0		68.0		42.8			
Max Q Clear Time (g_c+I1), s	0.0				6.5		0.0		29.0			
Green Ext Time (p_c), s	0.0				0.2		0.0		2.5			
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
 11: Washington St & Custer Ave

Corridor 0 2042 School  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑	↗	↖	↑↑	↗	↖	↑	↗	↖	↑	↗
Traffic Volume (veh/h)	574	578	248	184	481	108	663	421	305	198	234	55
Future Volume (veh/h)	574	578	248	184	481	108	663	421	305	198	234	55
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	1339	1308	1329	1406	1442	1477	1488	1488	1442	1500	1453	1371
Adj Flow Rate, veh/h	631	635	273	202	529	119	729	463	335	218	257	60
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	4	2	8	5	2	1	1	5	0	4	11
Cap, veh/h	302	861	608	248	926	523	355	479	530	171	303	382
Arrive On Green	0.08	0.23	0.23	0.11	0.34	0.34	0.19	0.32	0.32	0.08	0.21	0.21
Sat Flow, veh/h	1276	2485	1126	1339	2739	1251	1417	1488	1222	1429	1453	1162
Grp Volume(v), veh/h	631	635	273	202	529	119	729	463	335	218	257	60
Grp Sat Flow(s),veh/h/ln	1276	1242	1126	1339	1369	1251	1417	1488	1222	1429	1453	1162
Q Serve(g_s), s	18.0	35.6	23.5	14.7	23.8	9.2	29.0	45.9	32.1	12.0	25.5	5.5
Cycle Q Clear(g_c), s	18.0	35.6	23.5	14.7	23.8	9.2	29.0	45.9	32.1	12.0	25.5	5.5
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	302	861	608	248	926	523	355	479	530	171	303	382
V/C Ratio(X)	2.09	0.74	0.45	0.81	0.57	0.23	2.06	0.97	0.63	1.28	0.85	0.16
Avail Cap(c_a), veh/h	302	861	608	259	926	523	355	486	535	171	310	387
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.30	0.30	0.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	51.5	25.1	33.3	40.7	28.1	37.8	50.0	33.2	50.0	57.1	35.6
Incr Delay (d2), s/veh	494.4	1.7	0.7	16.7	2.6	1.0	484.5	31.9	2.1	161.3	18.5	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	46.6	11.6	6.8	5.8	8.3	2.9	57.7	21.0	9.7	9.5	10.8	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	535.3	53.3	25.9	50.0	43.3	29.1	522.3	81.9	35.3	211.3	75.6	35.8
LnGrp LOS	F	D	C	D	D	C	F	F	D	F	E	D
Approach Vol, veh/h		1539			850			1527			535	
Approach Delay, s/veh		246.1			42.9			281.9			126.4	
Approach LOS		F			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.7	59.0	33.0	37.3	22.0	57.7	16.0	54.3				
Change Period (Y+Rc), s	4.0	* 7	4.0	6.0	4.0	* 7	4.0	6.0				
Max Green Setting (Gmax), s	10.0	* 50	29.0	32.0	18.0	* 50	12.0	49.0				
Max Q Clear Time (g_c+1/3), s	10.0	37.6	31.0	27.5	20.0	25.8	14.0	47.9				
Green Ext Time (p_c), s	0.1	2.7	0.0	0.4	0.0	2.2	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay	205.2
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	46.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↕		↕	
Traffic Vol, veh/h	2	14	8	749	28	71	6	44	933	48	36	2
Future Vol, veh/h	2	14	8	749	28	71	6	44	933	48	36	2
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	-	-	Yield	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	1	0	4	0	13	0	0	0	0
Mvmt Flow	2	15	9	814	30	77	7	48	1014	52	39	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	24	0	0	1741	1759	20	1745	1725	69
Stage 1	-	-	-	-	-	-	24	24	-	1697	1697	-
Stage 2	-	-	-	-	-	-	1717	1735	-	48	28	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.63	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.63	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.63	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4.117	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1497	-	-	1597	-	-	69	80	1064	68	90	1000
Stage 1	-	-	-	-	-	-	999	854	-	118	150	-
Stage 2	-	-	-	-	-	-	115	133	-	971	876	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1497	-	-	1597	-	-	~ 6	~ 36	1064	-	41	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 6	~ 36	-	-	41	-
Stage 1	-	-	-	-	-	-	998	853	-	118	68	-
Stage 2	-	-	-	-	-	-	22	60	-	~ 43	875	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			8.5			85.3					
HCM LOS							F			-		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	23	1064	1497	-	-	1597	-	-	-
HCM Lane V/C Ratio	2.363	0.953	0.001	-	-	0.51	-	-	-
HCM Control Delay (s)	\$ 978.6	37.4	7.4	0	-	9.6	0	-	-
HCM Lane LOS	F	E	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	6.9	16.6	0	-	-	3	-	-	-

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

HCM 6th Signalized Intersection Summary  
 2: Valley Dr/Green Meadow Dr & Custer Ave/Custer Ave

Corridor 0 2042 PM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	704	9	106	676	270	5	35	116	149	25	156
Future Volume (veh/h)	303	704	9	106	676	270	5	35	116	149	25	156
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	1389	1400	1400	1500	1488	1488	1500	1500	1500	1500	1453	1453
Adj Flow Rate, veh/h	322	749	10	113	719	287	5	37	123	159	27	166
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	0	0	0	1	1	0	0	0	0	4	4
Cap, veh/h	181	766	10	152	524	209	151	43	143	213	40	245
Arrive On Green	0.09	0.56	0.56	0.07	0.69	0.69	0.01	0.14	0.14	0.09	0.23	0.23
Sat Flow, veh/h	1323	1378	18	1429	1012	404	1429	305	1013	1429	176	1082
Grp Volume(v), veh/h	322	0	759	113	0	1006	5	0	160	159	0	193
Grp Sat Flow(s),veh/h/ln	1323	0	1397	1429	0	1416	1429	0	1318	1429	0	1258
Q Serve(g_s), s	11.0	0.0	63.4	4.5	0.0	62.1	0.4	0.0	14.3	11.0	0.0	16.8
Cycle Q Clear(g_c), s	11.0	0.0	63.4	4.5	0.0	62.1	0.4	0.0	14.3	11.0	0.0	16.8
Prop In Lane	1.00		0.01	1.00		0.29	1.00		0.77	1.00		0.86
Lane Grp Cap(c), veh/h	181	0	776	152	0	733	151	0	185	213	0	284
V/C Ratio(X)	1.78	0.00	0.98	0.74	0.00	1.37	0.03	0.00	0.86	0.75	0.00	0.68
Avail Cap(c_a), veh/h	181	0	776	206	0	733	273	0	296	213	0	284
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.09	0.00	0.09	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.8	0.0	25.9	27.3	0.0	18.7	44.0	0.0	50.4	39.7	0.0	42.5
Incr Delay (d2), s/veh	370.8	0.0	27.3	0.9	0.0	168.6	0.1	0.0	13.9	13.6	0.0	6.4
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	24.0	0.0	24.9	1.6	0.0	48.3	0.1	0.0	5.4	4.6	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	408.6	0.0	53.2	28.2	0.0	187.3	44.1	0.0	64.3	53.3	0.0	48.8
LnGrp LOS	F	A	D	C	A	F	D	A	E	D	A	D
Approach Vol, veh/h		1081			1119			165				352
Approach Delay, s/veh		159.0			171.2			63.7				50.9
Approach LOS		F			F			E				D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	72.7	4.8	32.1	15.0	68.1	15.0	21.9				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	11.0	52.0	11.0	27.0	11.0	52.0	11.0	27.0				
Max Q Clear Time (g_c+I1), s	6.5	65.4	2.4	18.8	13.0	64.1	13.0	16.3				
Green Ext Time (p_c), s	0.1	0.0	0.0	0.6	0.0	0.0	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	144.3
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
3: Benton Ave & Custer Ave

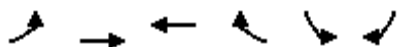
Corridor 0 2042 PM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	888	88	318	874	153	182	98	594	84	47	12
Future Volume (veh/h)	11	888	88	318	874	153	182	98	594	84	47	12
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	1400	1400	1400	1500	1500	1500	1500	1500	1500	1500	1500	1500
Adj Flow Rate, veh/h	11	915	91	328	901	158	188	101	612	87	48	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	60	688	583	239	808	142	304	388	487	181	299	75
Arrive On Green	0.49	0.49	0.49	0.08	0.43	0.43	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	399	1400	1186	1429	1243	218	1077	1500	1271	591	1158	290
Grp Volume(v), veh/h	11	915	91	328	0	1059	188	101	612	87	0	60
Grp Sat Flow(s),veh/h/ln	399	1400	1186	1429	0	1461	1077	1500	1271	591	0	1448
Q Serve(g_s), s	0.0	59.0	5.1	15.0	0.0	78.0	19.6	6.4	31.0	16.5	0.0	3.8
Cycle Q Clear(g_c), s	59.0	59.0	5.1	15.0	0.0	78.0	23.5	6.4	31.0	22.9	0.0	3.8
Prop In Lane	1.00		1.00	1.00		0.15	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	60	688	583	239	0	950	304	388	487	181	0	374
V/C Ratio(X)	0.18	1.33	0.16	1.37	0.00	1.12	0.62	0.26	1.26	0.48	0.00	0.16
Avail Cap(c_a), veh/h	60	688	583	239	0	950	304	388	487	181	0	374
HCM Platoon Ratio	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	0.09	0.00	0.09	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	60.0	30.5	16.8	42.1	0.0	34.3	43.5	35.4	37.0	44.5	0.0	34.4
Incr Delay (d2), s/veh	1.7	150.8	0.1	171.1	0.0	53.5	3.8	0.4	131.1	2.0	0.0	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	0.4	47.5	1.4	14.8	0.0	42.3	5.5	2.4	31.5	2.5	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.7	181.3	16.9	213.2	0.0	87.8	47.3	35.7	168.1	46.5	0.0	34.6
LnGrp LOS	E	F	B	F	A	F	D	D	F	D	A	C
Approach Vol, veh/h		1017			1387			901				147
Approach Delay, s/veh		165.3			117.4			128.1				41.6
Approach LOS		F			F			F				D
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	19.0	65.0		36.0		84.0		36.0				
Change Period (Y+Rc), s	4.0	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	15.0	59.0		31.0		78.0		31.0				
Max Q Clear Time (g_c+I), s	11.0	61.0		24.9		80.0		33.0				
Green Ext Time (p_c), s	0.0	0.0		0.5		0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				131.1								
HCM 6th LOS				F								

HCM 6th Signalized Intersection Summary  
4: Custer Ave & Cooney Dr

Corridor 0 2042 PM  
10/08/2018



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	1545	1346	73	96	23
Future Volume (veh/h)	7	1545	1346	73	96	23
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	1400	1400	1500	1500	1500	1500
Adj Flow Rate, veh/h	7	1561	1360	74	97	23
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	60	1129	1136	62	114	27
Arrive On Green	0.81	0.81	0.81	0.81	0.10	0.10
Sat Flow, veh/h	279	1400	1410	77	1119	265
Grp Volume(v), veh/h	7	1561	0	1434	121	0
Grp Sat Flow(s),veh/h/ln	279	1400	0	1486	1396	0
Q Serve(g_s), s	0.0	96.7	0.0	96.7	10.2	0.0
Cycle Q Clear(g_c), s	96.7	96.7	0.0	96.7	10.2	0.0
Prop In Lane	1.00			0.05	0.80	0.19
Lane Grp Cap(c), veh/h	60	1129	0	1198	143	0
V/C Ratio(X)	0.12	1.38	0.00	1.20	0.85	0.00
Avail Cap(c_a), veh/h	60	1129	0	1198	314	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	1.00	0.00
Uniform Delay (d), s/veh	60.0	11.6	0.0	11.6	53.0	0.0
Incr Delay (d2), s/veh	0.4	172.9	0.0	89.4	12.9	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	0.2	73.8	0.0	50.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	60.4	184.5	0.0	101.0	65.8	0.0
LnGrp LOS	E	F	A	F	E	A
Approach Vol, veh/h		1568	1434		121	
Approach Delay, s/veh		183.9	101.0		65.8	
Approach LOS		F	F		E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		102.7		17.3		102.7
Change Period (Y+Rc), s		6.0		5.0		6.0
Max Green Setting (Gmax), s		82.0		27.0		82.0
Max Q Clear Time (g_c+I1), s		98.7		12.2		98.7
Green Ext Time (p_c), s		0.0		0.3		0.0
<b>Intersection Summary</b>						
HCM 6th Ctrl Delay			141.3			
HCM 6th LOS			F			

Notes

User approved volume balancing among the lanes for turning movement.

HCM 6th Signalized Intersection Summary  
5: McHugh Dr & Custer Ave

Corridor 0 2042 PM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	257	1313	27	20	1072	152	100	96	41	314	28	254
Future Volume (veh/h)	257	1313	27	20	1072	152	100	96	41	314	28	254
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		No		No
Adj Sat Flow, veh/h/ln	1400	1400	1400	1500	1488	1488	1500	1500	1500	1500	1500	1500
Adj Flow Rate, veh/h	265	1354	28	21	1105	157	103	99	42	324	29	262
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	1	1	0	0	0	0	0	0
Cap, veh/h	182	738	15	90	599	85	163	189	80	291	27	242
Arrive On Green	0.06	0.36	0.36	0.02	0.47	0.47	0.07	0.19	0.19	0.09	0.21	0.21
Sat Flow, veh/h	1333	1367	28	1429	1275	181	1429	1000	424	1429	129	1162
Grp Volume(v), veh/h	265	0	1382	21	0	1262	103	0	141	324	0	291
Grp Sat Flow(s),veh/h/ln	1333	0	1395	1429	0	1456	1429	0	1424	1429	0	1291
Q Serve(g_s), s	11.0	0.0	64.8	0.9	0.0	56.4	6.9	0.0	10.7	11.0	0.0	25.0
Cycle Q Clear(g_c), s	11.0	0.0	64.8	0.9	0.0	56.4	6.9	0.0	10.7	11.0	0.0	25.0
Prop In Lane	1.00		0.02	1.00		0.12	1.00		0.30	1.00		0.90
Lane Grp Cap(c), veh/h	182	0	754	90	0	684	163	0	269	291	0	269
V/C Ratio(X)	1.45	0.00	1.83	0.23	0.00	1.85	0.63	0.00	0.52	1.12	0.00	1.08
Avail Cap(c_a), veh/h	182	0	754	191	0	684	191	0	297	291	0	269
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.00	0.09	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	38.6	29.0	0.0	31.8	37.5	0.0	43.8	45.1	0.0	47.5
Incr Delay (d2), s/veh	207.2	0.0	375.6	1.3	0.0	386.4	5.1	0.0	1.2	87.4	0.0	78.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	0.0	101.5	0.3	0.0	92.4	2.7	0.0	3.9	11.6	0.0	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	245.1	0.0	414.2	30.3	0.0	418.2	42.6	0.0	45.0	132.5	0.0	126.0
LnGrp LOS	F	A	F	C	A	F	D	A	D	F	A	F
Approach Vol, veh/h		1647			1283			244			615	
Approach Delay, s/veh		387.0			411.9			44.0			129.4	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	70.8	12.6	30.0	15.0	62.4	15.0	27.6				
Change Period (Y+Rc), s	4.0	6.0	4.0	5.0	4.0	6.0	4.0	5.0				
Max Green Setting (Gmax), s	10.0	54.0	11.0	25.0	11.0	54.0	11.0	25.0				
Max Q Clear Time (g_c+1/2g), s	10.0	66.8	8.9	27.0	13.0	58.4	13.0	12.7				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay												331.5
HCM 6th LOS												F

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	10	1611	59	85	1237	15	18	5	146	5	15	10
Future Vol, veh/h	10	1611	59	85	1237	15	18	5	146	5	15	10
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	500	-	-	500	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	0	1	0	8	0	2	0	0	0
Mvmt Flow	10	1661	61	88	1275	15	19	5	151	5	15	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1290	0	0	1722	0	0	3183	3178	1692	3249	3201	1283
Stage 1	-	-	-	-	-	-	1712	1712	-	1459	1459	-
Stage 2	-	-	-	-	-	-	1471	1466	-	1790	1742	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.18	6.5	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.572	4	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	544	-	-	372	-	-	~6	11	~115	6	~10	204
Stage 1	-	-	-	-	-	-	111	147	-	162	196	-
Stage 2	-	-	-	-	-	-	153	194	-	105	142	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	544	-	-	372	-	-	-	8	~115	-	~7	204
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	8	-	-	~7	-
Stage 1	-	-	-	-	-	-	109	144	-	159	150	-
Stage 2	-	-	-	-	-	-	99	148	-	-	139	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.1		
HCM LOS			-	-

























Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	544	-	-	372	-	-	-
HCM Lane V/C Ratio	-	0.019	-	-	0.236	-	-	-
HCM Control Delay (s)	-	11.7	-	-	17.6	-	-	-
HCM Lane LOS	-	B	-	-	C	-	-	-
HCM 95th %tile Q(veh)	-	0.1	-	-	0.9	-	-	-

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



HCM 6th Signalized Intersection Summary  
 7: Montana Ave & Custer Ave

Corridor 0 2042 PM  
 10/08/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	1192	198	308	860	526	231	689	310	363	507	140
Future Volume (veh/h)	300	1192	198	308	860	526	231	689	310	363	507	140
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	1400	1389	1400	1500	1488	1500	1500	1488	1500	1500	1500	1500
Adj Flow Rate, veh/h	309	1229	204	318	887	542	238	710	320	374	523	144
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	0	0	1	0	0	1	0	0	0	0
Cap, veh/h	190	866	547	356	531	623	259	745	498	246	582	160
Arrive On Green	0.11	0.33	0.33	0.17	0.47	0.47	0.13	0.26	0.26	0.13	0.26	0.26
Sat Flow, veh/h	1333	2639	1186	2771	1488	1271	1429	2828	1271	1429	2210	606
Grp Volume(v), veh/h	309	1229	204	318	887	542	238	710	320	374	336	331
Grp Sat Flow(s),veh/h/ln	1333	1320	1186	1386	1488	1271	1429	1414	1271	1429	1425	1391
Q Serve(g_s), s	16.0	49.2	16.8	16.8	53.5	53.5	18.1	37.0	30.7	20.0	34.1	34.5
Cycle Q Clear(g_c), s	16.0	49.2	16.8	16.8	53.5	53.5	18.1	37.0	30.7	20.0	34.1	34.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	190	866	547	356	531	623	259	745	498	246	375	366
V/C Ratio(X)	1.62	1.42	0.37	0.89	1.67	0.87	0.92	0.95	0.64	1.52	0.90	0.90
Avail Cap(c_a), veh/h	190	866	547	462	531	623	259	745	498	246	375	366
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	50.4	26.3	61.2	39.4	28.7	37.7	54.3	37.1	42.4	53.3	53.4
Incr Delay (d2), s/veh	303.8	195.5	0.3	1.7	302.7	1.3	34.6	23.4	6.2	254.8	26.5	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.3	39.5	4.8	5.7	62.3	16.4	8.7	15.4	10.3	24.3	14.8	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	347.3	245.9	26.6	62.9	342.1	30.0	72.4	77.7	43.3	297.2	79.7	81.3
LnGrp LOS	F	F	C	E	F	C	E	E	D	F	E	F
Approach Vol, veh/h		1742			1747			1268			1041	
Approach Delay, s/veh		238.2			194.5			68.0			158.3	
Approach LOS		F			F			E			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.0	46.0	24.3	55.7	24.0	46.0	20.0	60.0				
Change Period (Y+Rc), s	4.0	6.5	5.0	6.5	4.0	6.5	4.0	6.5				
Max Green Setting (Gmax), s	20.0	39.5	25.0	43.5	20.0	39.5	16.0	53.5				
Max Q Clear Time (g_c+I1), s	22.0	39.0	18.8	51.2	20.1	36.5	18.0	55.5				
Green Ext Time (p_c), s	0.0	0.2	0.4	0.0	0.0	1.0	0.0	0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	173.5											
HCM 6th LOS	F											

HCM 6th Signalized Intersection Summary  
8: Sanders St & Custer Ave

Corridor 0 2042 PM  
10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑	↗	↘	↑	↗
Traffic Volume (veh/h)	236	1579	139	200	1424	292	138	110	337	409	89	139
Future Volume (veh/h)	236	1579	139	200	1424	292	138	110	337	409	89	139
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		No		No
Adj Sat Flow, veh/h/ln	1400	1389	1400	1488	1488	1488	1488	1488	1488	1500	1500	1500
Adj Flow Rate, veh/h	246	1645	145	208	1483	304	144	115	351	426	93	145
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	1	0	1	1	1	1	1	1	0	0	0
Cap, veh/h	235	1085	488	226	931	186	330	526	446	270	530	449
Arrive On Green	0.09	0.27	0.27	0.08	0.26	0.26	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1333	2639	1186	1417	2348	470	909	1488	1261	743	1500	1271
Grp Volume(v), veh/h	246	1645	145	208	879	908	144	115	351	426	93	145
Grp Sat Flow(s),veh/h/ln	1333	1320	1186	1417	1414	1404	909	1488	1261	743	1500	1271
Q Serve(g_s), s	21.0	61.7	14.5	16.7	59.5	59.5	19.5	8.1	37.4	44.9	6.4	12.5
Cycle Q Clear(g_c), s	21.0	61.7	14.5	16.7	59.5	59.5	25.9	8.1	37.4	53.0	6.4	12.5
Prop In Lane	1.00		1.00	1.00		0.33	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	1085	488	226	561	557	330	526	446	270	530	449
V/C Ratio(X)	1.05	1.52	0.30	0.92	1.57	1.63	0.44	0.22	0.79	1.58	0.18	0.32
Avail Cap(c_a), veh/h	235	1085	488	246	561	557	330	526	446	270	530	449
HCM Platoon Ratio	0.66	0.66	0.66	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.57	0.57	0.57	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.7	54.6	37.5	49.4	55.4	55.4	42.4	34.0	43.5	56.5	33.4	35.4
Incr Delay (d2), s/veh	31.9	232.5	0.1	23.5	259.9	288.8	0.7	0.2	8.8	276.2	0.1	0.3
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	1.3	56.0	4.5	5.7	62.2	66.2	4.5	3.0	12.9	31.3	2.4	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.7	287.2	37.6	72.9	315.3	344.2	43.0	34.1	52.3	332.7	33.6	35.7
LnGrp LOS	F	F	D	E	F	F	D	C	D	F	C	D
Approach Vol, veh/h		2036			1995			610			664	
Approach Delay, s/veh		244.8			303.2			46.7			226.0	
Approach LOS		F			F			D			F	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.8	68.2		59.0	25.0	66.0		59.0				
Change Period (Y+Rc), s	4.0	6.5		6.0	4.0	6.5		6.0				
Max Green Setting (Gmax), s	21.0	59.5		53.0	21.0	59.5		53.0				
Max Q Clear Time (g_c+110), s	11.0	63.7		55.0	23.0	61.5		39.4				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.0	0.0		1.9				

Intersection Summary

HCM 6th Ctrl Delay	241.6
HCM 6th LOS	F

HCM 6th Signalized Intersection Summary  
 9: I-15 SB On & Custer Ave & I-15 SB Off

Corridor 0 2042 PM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL2	SBL	SBR	NWL	NWR
Lane Configurations		↑↑	↑		↑↑	↑	↑		↑		
Traffic Volume (veh/h)	0	1894	436	0	1760	325	89	0	208	0	0
Future Volume (veh/h)	0	1894	436	0	1760	325	89	0	208	0	0
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	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Work Zone On Approach		No		No		No		No			
Adj Sat Flow, veh/h/ln	0	1750	1736	0	1750	1736	1586	1586	1668		
Adj Flow Rate, veh/h	0	1994	0	0	1853	342	94	94	219		
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	0	1	0	0	1	12	12	6		
Cap, veh/h	0	2498		0	2498	1105	263	263	246		
Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.50	0.17	0.17	0.17		
Sat Flow, veh/h	0	3413	1471	0	3413	1471	1511	1511	1414		
Grp Volume(v), veh/h	0	1994	0	0	1853	342	94	94	219		
Grp Sat Flow(s),veh/h/ln	0	1663	1471	0	1663	1471	1511	1511	1414		
Q Serve(g_s), s	0.0	75.1	0.0	0.0	66.7	20.8	8.2	8.2	22.7		
Cycle Q Clear(g_c), s	0.0	75.1	0.0	0.0	66.7	20.8	8.2	8.2	22.7		
Prop In Lane	0.00		1.00	0.00		1.00	1.00	1.00	1.00		
Lane Grp Cap(c), veh/h	0	2498		0	2498	1105	263	263	246		
V/C Ratio(X)	0.00	0.80		0.00	0.74	0.31	0.36	0.36	0.89		
Avail Cap(c_a), veh/h	0	2498		0	2498	1105	502	502	469		
HCM Platoon Ratio	1.00	0.66	0.66	1.00	0.66	0.66	1.00	1.00	1.00		
Upstream Filter(I)	0.00	0.09	0.00	0.00	0.49	0.49	1.00	1.00	1.00		
Uniform Delay (d), s/veh	0.0	28.3	0.0	0.0	26.2	14.6	54.5	54.5	60.5		
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	1.0	0.4	0.8	0.8	10.5		
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	0.0	31.2	0.0	0.0	28.0	21.5	3.2	3.2	8.9		
Unsig. Movement Delay, s/veh											
LnGrp Delay(d),s/veh	0.0	28.6	0.0	0.0	27.2	15.0	55.4	55.4	71.0		
LnGrp LOS		A	C		A	C	B	E	E	E	
Approach Vol, veh/h		1994	A		2195		313	313			
Approach Delay, s/veh		28.6			25.3		66.3	66.3			
Approach LOS		C			C		E	E			
Timer - Assigned Phs		2		4		6					
Phs Duration (G+Y+Rc), s		118.7		31.3		118.7					
Change Period (Y+Rc), s		* 6		* 5.2		* 6					
Max Green Setting (Gmax), s		* 89		* 50		* 89					
Max Q Clear Time (g_c+I1), s		0.0		24.7		0.0					
Green Ext Time (p_c), s		0.0		1.4		0.0					

Intersection Summary

HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.  
 Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary  
 10: I-15 NB Off/I-15 NB On & Custer Ave

Corridor 0 2042 PM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘	↖	↗			
Traffic Volume (veh/h)	141	1842	0	0	1453	129	632	0	254	0	0	0
Future Volume (veh/h)	141	1842	0	0	1453	129	632	0	254	0	0	0
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			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1723	1736	0	0	1736	1641	1736	1750	1750			
Adj Flow Rate, veh/h	145	1899	0	0	1498	133	652	0	262			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	2	1	0	0	1	8	1	0	0			
Cap, veh/h	303	2312	0	0	2070	872	743	0	333			
Arrive On Green	0.08	1.00	0.00	0.00	1.00	1.00	0.22	0.00	0.22			
Sat Flow, veh/h	1641	3386	0	0	3386	1391	3307	0	1483			
Grp Volume(v), veh/h	145	1899	0	0	1498	133	652	0	262			
Grp Sat Flow(s),veh/h/ln	1641	1650	0	0	1650	1391	1654	0	1483			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	0.0	0.0	28.6	0.0	25.0			
Cycle Q Clear(g_c), s	4.7	0.0	0.0	0.0	0.0	0.0	28.6	0.0	25.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	303	2312	0	0	2070	872	743	0	333			
V/C Ratio(X)	0.48	0.82	0.00	0.00	0.72	0.15	0.88	0.00	0.79			
Avail Cap(c_a), veh/h	489	2312	0	0	2070	872	944	0	423			
HCM Platoon Ratio	1.66	1.66	1.00	1.00	1.66	1.66	1.00	1.00	1.00			
Upstream Filter(I)	0.52	0.52	0.00	0.00	0.09	0.09	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.8	0.0	0.0	0.0	0.0	0.0	56.2	0.0	54.8			
Incr Delay (d2), s/veh	0.5	1.8	0.0	0.0	0.2	0.0	7.4	0.0	6.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.5	0.6	0.0	0.0	0.1	0.0	12.8	0.0	10.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	1.8	0.0	0.0	0.2	0.0	63.6	0.0	61.5			
LnGrp LOS	A	A	A	A	A	A	E	A	E			
Approach Vol, veh/h		2044			1631			914				
Approach Delay, s/veh		2.3			0.2			63.0				
Approach LOS		A			A			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		111.1			11.0	100.1		38.9				
Change Period (Y+Rc), s		6.0			4.0	6.0		5.2				
Max Green Setting (Gmax), s		96.0			24.0	68.0		42.8				
Max Q Clear Time (g_c+I1), s		0.0			6.7	0.0		30.6				
Green Ext Time (p_c), s		0.0			0.3	0.0		3.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay					13.6							
HCM 6th LOS					B							
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												

HCM 6th Signalized Intersection Summary  
 11: Washington St & Custer Ave

Corridor 0 2042 PM  
 10/08/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	777	819	276	202	529	133	780	710	417	280	245	76
Future Volume (veh/h)	777	819	276	202	529	133	780	710	417	280	245	76
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		No		No
Adj Sat Flow, veh/h/ln	1750	1736	1736	1709	1723	1695	1750	1750	1723	1750	1750	1750
Adj Flow Rate, veh/h	827	871	294	215	563	141	830	755	444	298	261	81
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	1	3	2	4	0	0	2	0	0	0
Cap, veh/h	384	1164	804	259	1091	594	444	572	624	181	373	494
Arrive On Green	0.08	0.23	0.23	0.10	0.33	0.33	0.19	0.33	0.33	0.08	0.21	0.21
Sat Flow, veh/h	1667	3299	1471	1628	3273	1437	1667	1750	1460	1667	1750	1483
Grp Volume(v), veh/h	827	871	294	215	563	141	830	755	444	298	261	81
Grp Sat Flow(s),veh/h/ln	1667	1650	1471	1628	1637	1437	1667	1750	1460	1667	1750	1483
Q Serve(g_s), s	18.0	36.8	18.6	12.9	20.8	9.6	29.0	49.0	37.5	12.0	20.7	5.8
Cycle Q Clear(g_c), s	18.0	36.8	18.6	12.9	20.8	9.6	29.0	49.0	37.5	12.0	20.7	5.8
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	384	1164	804	259	1091	594	444	572	624	181	373	494
V/C Ratio(X)	2.16	0.75	0.37	0.83	0.52	0.24	1.87	1.32	0.71	1.64	0.70	0.16
Avail Cap(c_a), veh/h	384	1164	804	291	1091	594	444	572	624	181	373	494
HCM Platoon Ratio	0.66	0.66	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	51.4	23.3	34.2	40.3	28.6	38.8	50.5	35.4	47.1	54.5	35.3
Incr Delay (d2), s/veh	524.4	2.1	0.6	15.8	1.7	0.9	400.6	156.3	3.6	313.0	5.3	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	62.2	16.0	7.0	6.1	8.6	3.5	61.9	45.8	13.7	21.1	9.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	563.7	53.4	23.9	50.1	42.0	29.6	439.5	206.8	38.9	360.0	59.9	35.4
LnGrp LOS	F	D	C	D	D	C	F	F	D	F	E	D
Approach Vol, veh/h		1992			919			2029			640	
Approach Delay, s/veh		260.9			42.0			265.2			196.5	
Approach LOS		F			D			F			F	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	19.1	59.9	33.0	38.0	22.0	57.0	16.0	55.0				
Change Period (Y+Rc), s	4.0	* 7	4.0	6.0	4.0	* 7	4.0	6.0				
Max Green Setting (Gmax), s	10.0	* 50	29.0	32.0	18.0	* 50	12.0	49.0				
Max Q Clear Time (g_c+1/4), s	14.0	38.8	31.0	22.7	20.0	22.8	14.0	51.0				
Green Ext Time (p_c), s	0.2	3.5	0.0	0.7	0.0	2.5	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay	219.0
HCM 6th LOS	F

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.