



Appendix K: 2023 Existing Conditions Synchro Outputs

Lanes, Volumes, Timings
 1: US 76/378 (Robert E Graham Fwy) WB & Jefferson Rd

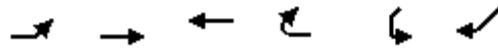
AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑			↗
Traffic Volume (vph)	0	0	419	0	0	96
Future Volume (vph)	0	0	419	0	0	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.865
Fl _t Protected						
Satd. Flow (prot)	0	0	1810	0	0	1536
Fl _t Permitted						
Satd. Flow (perm)	0	0	1810	0	0	1536
Link Speed (mph)		40	40		35	
Link Distance (ft)		141	270		1395	
Travel Time (s)		2.4	4.6		27.2	
Peak Hour Factor	0.92	0.92	0.87	0.92	0.92	0.86
Heavy Vehicles (%)	2%	2%	5%	2%	2%	7%
Adj. Flow (vph)	0	0	482	0	0	112
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	482	0	0	112
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			40	15	9
Sign Control		Stop	Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.7%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	211	515	369	1	0	0
Future Volume (vph)	211	515	369	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	1671	3471	3471	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1671	3471	3471	0	0	0
Link Speed (mph)		40	40		40	
Link Distance (ft)		397	1287		329	
Travel Time (s)		6.8	21.9		5.6	
Peak Hour Factor	0.97	0.97	0.74	0.74	0.92	0.92
Heavy Vehicles (%)	8%	4%	4%	0%	2%	2%
Adj. Flow (vph)	218	531	499	1	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	218	531	500	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	18		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.6%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 3: US 521 (Camden Hwy) & Jefferson Rd

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕↗		↖	↕↗	
Traffic Volume (vph)	0	0	2	37	70	59	27	493	48	114	945	7
Future Volume (vph)	0	0	2	37	70	59	27	493	48	114	945	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	75		0	25		0	150		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	100			100			15			0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.865			0.931			0.987			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1644	0	1805	1627	0	1805	3277	0	1736	3502	0
Flt Permitted				0.755			0.228			0.416		
Satd. Flow (perm)	0	1644	0	1434	1627	0	433	3277	0	760	3502	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		77			66			28				2
Link Speed (mph)		35			35			40				40
Link Distance (ft)		1395			1118			144				1067
Travel Time (s)		27.2			21.8			2.5				18.2
Peak Hour Factor	0.50	0.50	0.50	0.90	0.90	0.90	0.87	0.87	0.87	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	0%	6%	12%	0%	9%	6%	4%	3%	0%
Adj. Flow (vph)	0	0	4	41	78	66	31	567	55	136	1125	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	41	144	0	31	622	0	136	1133	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru										
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex										
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6			2	

Lanes, Volumes, Timings
 3: US 521 (Camden Hwy) & Jefferson Rd

AM Peak
 Existing 2023 AM

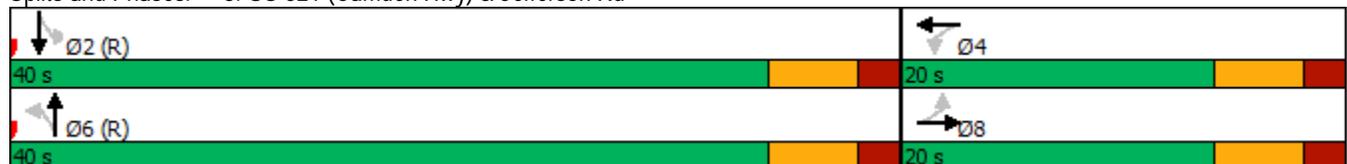


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	20.0	20.0		20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	14.0	14.0		14.0	14.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		8.7		8.7	8.7		42.9	42.9		42.9	42.9	
Actuated g/C Ratio		0.14		0.14	0.14		0.72	0.72		0.72	0.72	
v/c Ratio		0.01		0.20	0.49		0.10	0.26		0.25	0.45	
Control Delay		0.0		23.5	19.2		5.9	4.6		6.6	6.0	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		0.0		23.5	19.2		5.9	4.6		6.6	6.0	
LOS		A		C	B		A	A		A	A	
Approach Delay					20.1			4.7				6.1
Approach LOS					C			A				A

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 6.8
 Intersection LOS: A
 Intersection Capacity Utilization 60.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 3: US 521 (Camden Hwy) & Jefferson Rd



HCM 6th Signalized Intersection Summary

3: US 521 (Camden Hwy) & Jefferson Rd

AM Peak
Existing 2023 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕		↖	↕	
Traffic Volume (veh/h)	0	0	2	37	70	59	27	493	48	114	945	7
Future Volume (veh/h)	0	0	2	37	70	59	27	493	48	114	945	7
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	1900	1900	1900	1900	1811	1722	1900	1767	1811	1841	1856	1900
Adj Flow Rate, veh/h	0	0	4	41	78	66	31	567	55	136	1125	8
Peak Hour Factor	0.50	0.50	0.50	0.90	0.90	0.90	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	6	12	0	9	6	4	3	0
Cap, veh/h	0	0	191	287	107	91	391	2107	204	602	2446	17
Arrive On Green	0.00	0.00	0.12	0.12	0.12	0.12	0.68	0.68	0.68	0.68	0.68	0.68
Sat Flow, veh/h	0	0	1610	1435	906	767	505	3092	299	790	3588	26
Grp Volume(v), veh/h	0	0	4	41	0	144	31	307	315	136	553	580
Grp Sat Flow(s),veh/h/ln	0	0	1610	1435	0	1673	505	1678	1713	790	1763	1851
Q Serve(g_s), s	0.0	0.0	0.1	1.6	0.0	5.0	1.8	4.3	4.3	4.9	8.7	8.7
Cycle Q Clear(g_c), s	0.0	0.0	0.1	1.7	0.0	5.0	10.5	4.3	4.3	9.2	8.7	8.7
Prop In Lane	0.00		1.00	1.00		0.46	1.00		0.17	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	191	287	0	198	391	1144	1167	602	1202	1262
V/C Ratio(X)	0.00	0.00	0.02	0.14	0.00	0.73	0.08	0.27	0.27	0.23	0.46	0.46
Avail Cap(c_a), veh/h	0	0	376	452	0	390	391	1144	1167	602	1202	1262
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	23.4	24.1	0.0	25.5	6.9	3.7	3.7	5.5	4.4	4.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	5.0	0.4	0.6	0.6	0.9	1.3	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	0.0	0.0	0.0	0.5	0.0	2.1	0.2	0.9	0.9	0.7	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	23.4	24.3	0.0	30.5	7.3	4.3	4.3	6.4	5.7	5.6
LnGrp LOS	A	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		4			185			653			1269	
Approach Delay, s/veh		23.4			29.2			4.4			5.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		46.9		13.1		46.9		13.1				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		34.0		14.0		34.0		14.0				
Max Q Clear Time (g_c+l1), s		11.2		7.0		12.5		2.1				
Green Ext Time (p_c), s		8.6		0.4		3.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

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

Lanes, Volumes, Timings
 4: US 521 (Camden Hwy) & N Pike W

AM Peak
 Existing 2023 AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	18	98	470	61	128	857
Future Volume (vph)	18	98	470	61	128	857
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.886		0.983			
Flt Protected	0.992				0.950	
Satd. Flow (prot)	1551	0	3289	0	1736	3505
Flt Permitted	0.992				0.950	
Satd. Flow (perm)	1551	0	3289	0	1736	3505
Link Speed (mph)	45		40			40
Link Distance (ft)	2128		262			144
Travel Time (s)	32.2		4.5			2.5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.84	0.84
Heavy Vehicles (%)	6%	8%	8%	7%	4%	3%
Adj. Flow (vph)	21	115	553	72	152	1020
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	625	0	152	1020
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	39.1%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: US 521 (Camden Hwy) & N Pike W

AM Peak
Existing 2023 AM

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	18	98	470	61	128	857
Future Vol, veh/h	18	98	470	61	128	857
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	84	84
Heavy Vehicles, %	6	8	8	7	4	3
Mvmt Flow	21	115	553	72	152	1020

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1403	313	0	0	625
Stage 1	589	-	-	-	-
Stage 2	814	-	-	-	-
Critical Hdwy	6.92	7.06	-	-	4.18
Critical Hdwy Stg 1	5.92	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-
Follow-up Hdwy	3.56	3.38	-	-	2.24
Pot Cap-1 Maneuver	126	665	-	-	939
Stage 1	506	-	-	-	-
Stage 2	386	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	106	665	-	-	939
Mov Cap-2 Maneuver	106	-	-	-	-
Stage 1	506	-	-	-	-
Stage 2	323	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.6	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	366	939
HCM Lane V/C Ratio	-	-	0.373	0.162
HCM Control Delay (s)	-	-	20.6	9.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.7	0.6

Lanes, Volumes, Timings
5: US 521 (Camden Hwy)

AM Peak
Existing 2023 AM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (vph)	66	122	409	0	0	874
Future Volume (vph)	66	122	409	0	0	874
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.912					
Flt Protected	0.983					
Satd. Flow (prot)	1552	0	3406	0	0	3505
Flt Permitted	0.983					
Satd. Flow (perm)	1552	0	3406	0	0	3505
Link Speed (mph)	30		40		40	
Link Distance (ft)	1103		245		262	
Travel Time (s)	25.1		4.2		4.5	
Peak Hour Factor	0.81	0.81	0.91	0.92	0.92	0.88
Heavy Vehicles (%)	0%	15%	6%	2%	2%	3%
Adj. Flow (vph)	81	151	449	0	0	993
Shared Lane Traffic (%)						
Lane Group Flow (vph)	232	0	449	0	0	993
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.0%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑↑			↑↑
Traffic Vol, veh/h	66	122	409	0	0	874
Future Vol, veh/h	66	122	409	0	0	874
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	91	92	92	88
Heavy Vehicles, %	0	15	6	2	2	3
Mvmt Flow	81	151	449	0	0	993

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	946	225	0	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Critical Hdwy	6.8	7.2	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.45	-	-	-	-
Pot Cap-1 Maneuver	263	740	-	0	0	-
Stage 1	616	-	-	0	0	-
Stage 2	582	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	263	740	-	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	582	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 749	-
HCM Lane V/C Ratio	- 0.31	-
HCM Control Delay (s)	- 12	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 1.3	-

Lanes, Volumes, Timings
 6: US 521 (Camden Hwy) & S Pike W

AM Peak
 Existing 2023 AM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	19	117	292	41	466	478
Future Volume (vph)	19	117	292	41	466	478
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	150		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.982			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1626	1553	3340	0	1736	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1626	1553	3340	0	1736	3539
Link Speed (mph)	35		40			40
Link Distance (ft)	825		665			245
Travel Time (s)	16.1		11.3			4.2
Peak Hour Factor	0.81	0.81	0.82	0.82	0.87	0.87
Heavy Vehicles (%)	11%	4%	7%	0%	4%	2%
Adj. Flow (vph)	23	144	356	50	536	549
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	144	406	0	536	549
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	48.5%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	5.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↕↔		↖	↗
Traffic Vol, veh/h	19	117	292	41	466	478
Future Vol, veh/h	19	117	292	41	466	478
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	200	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	82	82	87	87
Heavy Vehicles, %	11	4	7	0	4	2
Mvmt Flow	23	144	356	50	536	549

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1728	203	0	0	406	0
Stage 1	381	-	-	-	-	-
Stage 2	1347	-	-	-	-	-
Critical Hdwy	7.02	6.98	-	-	4.18	-
Critical Hdwy Stg 1	6.02	-	-	-	-	-
Critical Hdwy Stg 2	6.02	-	-	-	-	-
Follow-up Hdwy	3.61	3.34	-	-	2.24	-
Pot Cap-1 Maneuver	72	798	-	-	1135	-
Stage 1	634	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	38	798	-	-	1135	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	101	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	5.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	87	798	1135	-
HCM Lane V/C Ratio	-	-	0.27	0.181	0.472	-
HCM Control Delay (s)	-	-	61	10.5	11	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	1	0.7	2.6	-

Lanes, Volumes, Timings

AM Peak

7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

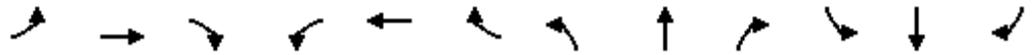


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	442	6	34	363	276	0	0	0	414	25	66
Future Volume (vph)	78	442	6	34	363	276	0	0	0	414	25	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	0		0	0		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.998				0.850						0.960
Flt Protected	0.950			0.950						0.950	0.969	
Satd. Flow (prot)	1703	3499	0	1805	3471	1538	0	0	0	1681	1643	0
Flt Permitted	0.950			0.950						0.950	0.969	
Satd. Flow (perm)	1703	3499	0	1805	3471	1538	0	0	0	1681	1643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				300						14
Link Speed (mph)		40			40			25				40
Link Distance (ft)		1287			283			301				665
Travel Time (s)		21.9			4.8			8.2				11.3
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92	0.92	0.92	0.92	0.86	0.86	0.86
Heavy Vehicles (%)	6%	3%	0%	0%	4%	5%	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	94	533	7	37	395	300	0	0	0	481	29	77
Shared Lane Traffic (%)										38%		
Lane Group Flow (vph)	94	540	0	37	395	300	0	0	0	298	289	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			12				40
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		40	15		9	15		9
Number of Detectors	1	2		1	2	1				1	2	
Detector Template	Left	Thru		Left	Thru	Right				Left	Thru	
Leading Detector (ft)	20	100		20	100	20				20	100	
Trailing Detector (ft)	0	0		0	0	0				0	0	
Detector 1 Position(ft)	0	0		0	0	0				0	0	
Detector 1 Size(ft)	20	6		20	6	20				20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Prot	NA		Prot	NA	Free				Perm	NA	
Protected Phases	5	2		1	6						4	

Lanes, Volumes, Timings

AM Peak

7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

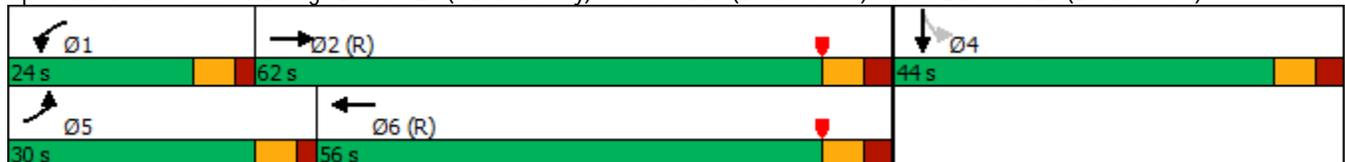


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free						4					
Detector Phase	5	2		1	6					4	4	
Switch Phase												
Minimum Initial (s)	8.0	15.0		8.0	15.0					15.0	15.0	
Minimum Split (s)	24.0	25.0		15.0	25.0					25.0	25.0	
Total Split (s)	30.0	62.0		24.0	56.0					44.0	44.0	
Total Split (%)	23.1%	47.7%		18.5%	43.1%					33.8%	33.8%	
Maximum Green (s)	24.0	55.1		18.0	49.1					37.1	37.1	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.9		2.0	2.9					2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)	6.0	6.9		6.0	6.9					6.9	6.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0		3.0	4.0					3.0	3.0	
Minimum Gap (s)	3.0	4.0		3.0	4.0					3.0	3.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0					0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0					0.0	0.0	
Recall Mode	None	C-Min		None	C-Min					None	None	
Act Effct Green (s)	12.6	78.1		8.9	68.8	130.0				28.8	28.8	
Actuated g/C Ratio	0.10	0.60		0.07	0.53	1.00				0.22	0.22	
v/c Ratio	0.57	0.26		0.30	0.22	0.20				0.80	0.77	
Control Delay	69.1	14.9		63.7	18.4	0.3				63.3	58.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Total Delay	69.1	14.9		63.7	18.4	0.3				63.3	58.4	
LOS	E	B		E	B	A				E	E	
Approach Delay		23.0			13.3						60.9	
Approach LOS		C			B						E	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 37 (28%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 30.7
 Intersection LOS: C
 Intersection Capacity Utilization 49.8%
 ICU Level of Service A
 Analysis Period (min) 15

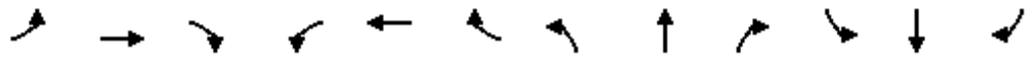
Splits and Phases: 7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)



HCM 6th Signalized Intersection Summary

AM Peak

7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗				↖	↕	↗
Traffic Volume (veh/h)	78	442	6	34	363	276	0	0	0	414	25	66
Future Volume (veh/h)	78	442	6	34	363	276	0	0	0	414	25	66
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	1811	1856	1900	1900	1841	1826				1870	1841	1870
Adj Flow Rate, veh/h	94	533	7	37	395	0				574	0	0
Peak Hour Factor	0.83	0.83	0.83	0.92	0.92	0.92				0.86	0.86	0.86
Percent Heavy Veh, %	6	3	0	0	4	5				2	4	2
Cap, veh/h	121	2196	29	82	2069					662	342	
Arrive On Green	0.07	0.62	0.62	0.05	0.59	0.00				0.19	0.00	0.00
Sat Flow, veh/h	1725	3563	47	1810	3497	1547				3563	1841	0
Grp Volume(v), veh/h	94	264	276	37	395	0				574	0	0
Grp Sat Flow(s),veh/h/ln	1725	1763	1847	1810	1749	1547				1781	1841	0
Q Serve(g_s), s	7.0	8.8	8.8	2.6	6.8	0.0				20.3	0.0	0.0
Cycle Q Clear(g_c), s	7.0	8.8	8.8	2.6	6.8	0.0				20.3	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00				1.00		0.00
Lane Grp Cap(c), veh/h	121	1087	1139	82	2069					662	342	
V/C Ratio(X)	0.78	0.24	0.24	0.45	0.19					0.87	0.00	
Avail Cap(c_a), veh/h	318	1087	1139	251	2069					1017	525	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	59.4	11.2	11.2	60.5	12.2	0.0				51.3	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.5	0.5	3.8	0.2	0.0				5.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.4	3.6	1.3	2.6	0.0				9.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.5	11.8	11.8	64.3	12.4	0.0				56.5	0.0	0.0
LnGrp LOS	E	B	B	E	B					E	A	
Approach Vol, veh/h		634			432						574	
Approach Delay, s/veh		20.3			16.9						56.5	
Approach LOS		C			B						E	
Timer - Assigned Phs	1	2		4	5	6						
Phs Duration (G+Y+Rc), s	11.9	87.0		31.1	15.1	83.8						
Change Period (Y+Rc), s	6.0	6.9		6.9	6.0	6.9						
Max Green Setting (Gmax), s	18.0	55.1		37.1	24.0	49.1						
Max Q Clear Time (g_c+I1), s	4.6	10.8		22.3	9.0	8.8						
Green Ext Time (p_c), s	0.0	5.0		1.8	0.2	3.8						

Intersection Summary

HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Lanes, Volumes, Timings
8: S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↶	↷			
Traffic Volume (vph)	222	278	138	15	0	0
Future Volume (vph)	222	278	138	15	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.987			
Flt Protected		0.978				
Satd. Flow (prot)	0	1793	1794	0	0	0
Flt Permitted		0.978				
Satd. Flow (perm)	0	1793	1794	0	0	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		825	1032		170	
Travel Time (s)		16.1	20.1		3.9	
Peak Hour Factor	0.83	0.83	0.83	0.83	0.92	0.92
Heavy Vehicles (%)	7%	1%	5%	0%	2%	2%
Adj. Flow (vph)	267	335	166	18	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	602	184	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 9: US 76/378 (Robert E Graham Fwy) WB

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑	↗		
Traffic Volume (vph)	0	0	419	134	0	0
Future Volume (vph)	0	0	419	134	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't				0.850		
Flt Protected						
Satd. Flow (prot)	0	0	1792	1404	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	1792	1404	0	0
Link Speed (mph)		60	60		30	
Link Distance (ft)		859	853		1103	
Travel Time (s)		9.8	9.7		25.1	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.92
Heavy Vehicles (%)	2%	2%	6%	15%	2%	2%
Adj. Flow (vph)	0	0	466	149	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	466	149	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			40	15	9
Sign Control		Stop	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.4%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
10: Market St & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	243	34	38	134	25	35
Future Volume (vph)	243	34	38	134	25	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.984			0.850		
Flt Protected				0.989	0.950	
Satd. Flow (prot)	1847	0	0	1790	1671	1615
Flt Permitted				0.989	0.950	
Satd. Flow (perm)	1847	0	0	1790	1671	1615
Link Speed (mph)	35			45	30	
Link Distance (ft)	1032			932	1040	
Travel Time (s)	20.1			14.1	23.6	
Peak Hour Factor	0.69	0.69	0.80	0.80	0.83	0.83
Heavy Vehicles (%)	1%	3%	5%	5%	8%	0%
Adj. Flow (vph)	352	49	48	168	30	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	0	0	216	30	42
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	L NA	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	34	38	134	25	35
Future Vol, veh/h	243	34	38	134	25	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	80	80	83	83
Heavy Vehicles, %	1	3	5	5	8	0
Mvmt Flow	352	49	48	168	30	42

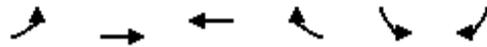
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	401	0	641
Stage 1	-	-	-	-	377
Stage 2	-	-	-	-	264
Critical Hdwy	-	-	4.15	-	6.48
Critical Hdwy Stg 1	-	-	-	-	5.48
Critical Hdwy Stg 2	-	-	-	-	5.48
Follow-up Hdwy	-	-	2.245	-	3.572
Pot Cap-1 Maneuver	-	-	1142	-	430
Stage 1	-	-	-	-	681
Stage 2	-	-	-	-	766
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1142	-	410
Mov Cap-2 Maneuver	-	-	-	-	410
Stage 1	-	-	-	-	681
Stage 2	-	-	-	-	731

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	410	674	-	-	1142	-
HCM Lane V/C Ratio	0.073	0.063	-	-	0.042	-
HCM Control Delay (s)	14.5	10.7	-	-	8.3	0
HCM Lane LOS	B	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.2	-	-	0.1	-

Lanes, Volumes, Timings
11: N Pike W & Electric Dr

AM Peak
Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	41	117	111	26	8	20
Future Volume (vph)	41	117	111	26	8	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.974		0.902	
Flt Protected		0.987			0.986	
Satd. Flow (prot)	0	1803	1727	0	1352	0
Flt Permitted		0.987			0.986	
Satd. Flow (perm)	0	1803	1727	0	1352	0
Link Speed (mph)		45	45		25	
Link Distance (ft)		2128	2903		760	
Travel Time (s)		32.2	44.0		20.7	
Peak Hour Factor	0.76	0.76	0.90	0.90	0.78	0.78
Heavy Vehicles (%)	7%	3%	6%	12%	38%	20%
Adj. Flow (vph)	54	154	123	29	10	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	208	152	0	36	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.2%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	41	117	111	26	8	20
Future Vol, veh/h	41	117	111	26	8	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	76	76	90	90	78	78
Heavy Vehicles, %	7	3	6	12	38	20
Mvmt Flow	54	154	123	29	10	26

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	152	0	-	0	400 138
Stage 1	-	-	-	-	138 -
Stage 2	-	-	-	-	262 -
Critical Hdwy	4.17	-	-	-	6.78 6.4
Critical Hdwy Stg 1	-	-	-	-	5.78 -
Critical Hdwy Stg 2	-	-	-	-	5.78 -
Follow-up Hdwy	2.263	-	-	-	3.842 3.48
Pot Cap-1 Maneuver	1399	-	-	-	542 865
Stage 1	-	-	-	-	807 -
Stage 2	-	-	-	-	705 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1399	-	-	-	519 865
Mov Cap-2 Maneuver	-	-	-	-	519 -
Stage 1	-	-	-	-	773 -
Stage 2	-	-	-	-	705 -

Approach	EB	WB	SB
HCM Control Delay, s	2	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1399	-	-	-	727
HCM Lane V/C Ratio	0.039	-	-	-	0.049
HCM Control Delay (s)	7.7	0	-	-	10.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Lanes, Volumes, Timings
12: E Wesmark Blvd & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	↻
Traffic Volume (vph)	203	53	89	157	16	63
Future Volume (vph)	203	53	89	157	16	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972			0.850		
Flt Protected				0.982	0.950	
Satd. Flow (prot)	1818	0	0	1796	1805	1524
Flt Permitted				0.982	0.950	
Satd. Flow (perm)	1818	0	0	1796	1805	1524
Link Speed (mph)	45			45	35	
Link Distance (ft)	932			1492	867	
Travel Time (s)	14.1			22.6	16.9	
Peak Hour Factor	0.73	0.73	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	0%	2%	5%	0%	6%
Adj. Flow (vph)	278	73	109	191	20	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	351	0	0	300	20	77
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	L NA	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.4%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	203	53	89	157	16	63
Future Vol, veh/h	203	53	89	157	16	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	82	82	82	82
Heavy Vehicles, %	2	0	2	5	0	6
Mvmt Flow	278	73	109	191	20	77

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	351	0	724
Stage 1	-	-	-	-	315
Stage 2	-	-	-	-	409
Critical Hdwy	-	-	4.12	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.218	-	3.5
Pot Cap-1 Maneuver	-	-	1208	-	396
Stage 1	-	-	-	-	744
Stage 2	-	-	-	-	675
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1208	-	356
Mov Cap-2 Maneuver	-	-	-	-	356
Stage 1	-	-	-	-	744
Stage 2	-	-	-	-	607

Approach	EB	WB	NB
HCM Control Delay, s	0	3	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	356	716	-	-	1208	-
HCM Lane V/C Ratio	0.055	0.107	-	-	0.09	-
HCM Control Delay (s)	15.7	10.6	-	-	8.3	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0.3	-

Lanes, Volumes, Timings
13: Bultman Dr & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	244	34	54	204	30	46
Future Volume (vph)	244	34	54	204	30	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.983			0.919		
Flt Protected				0.990	0.981	
Satd. Flow (prot)	1845	0	0	1823	1607	0
Flt Permitted				0.990	0.981	
Satd. Flow (perm)	1845	0	0	1823	1607	0
Link Speed (mph)	45			45	35	
Link Distance (ft)	1492			1290	1099	
Travel Time (s)	22.6			19.5	21.4	
Peak Hour Factor	0.86	0.86	0.75	0.75	0.86	0.86
Heavy Vehicles (%)	1%	3%	0%	4%	3%	9%
Adj. Flow (vph)	284	40	72	272	35	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	324	0	0	344	88	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.1%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	244	34	54	204	30	46
Future Vol, veh/h	244	34	54	204	30	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	75	75	86	86
Heavy Vehicles, %	1	3	0	4	3	9
Mvmt Flow	284	40	72	272	35	53

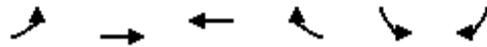
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	324	0	720
Stage 1	-	-	-	-	304
Stage 2	-	-	-	-	416
Critical Hdwy	-	-	4.1	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.2	-	3.527
Pot Cap-1 Maneuver	-	-	1247	-	393
Stage 1	-	-	-	-	746
Stage 2	-	-	-	-	664
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1247	-	366
Mov Cap-2 Maneuver	-	-	-	-	366
Stage 1	-	-	-	-	746
Stage 2	-	-	-	-	619

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	521	-	-	1247	-
HCM Lane V/C Ratio	0.17	-	-	0.058	-
HCM Control Delay (s)	13.3	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Lanes, Volumes, Timings
 14: N Pike W & Farmers Telephone Rd

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Volume (vph)	11	105	138	31	12	10
Future Volume (vph)	11	105	138	31	12	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.975		0.937	
Flt Protected		0.995			0.974	
Satd. Flow (prot)	0	1779	1757	0	1474	0
Flt Permitted		0.995			0.974	
Satd. Flow (perm)	0	1779	1757	0	1474	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		2903	2450		704	
Travel Time (s)		44.0	37.1		16.0	
Peak Hour Factor	0.73	0.73	0.90	0.90	0.79	0.79
Heavy Vehicles (%)	9%	6%	6%	3%	33%	0%
Adj. Flow (vph)	15	144	153	34	15	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	159	187	0	28	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.7%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
14: N Pike W & Farmers Telephone Rd

AM Peak
Existing 2023 AM

Intersection

Int Delay, s/veh 1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	11	105	138	31	12	10
Future Vol, veh/h	11	105	138	31	12	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	73	73	90	90	79	79
Heavy Vehicles, %	9	6	6	3	33	0
Mvmt Flow	15	144	153	34	15	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	187	0	0	344	170
Stage 1	-	-	-	170	-
Stage 2	-	-	-	174	-
Critical Hdwy	4.19	-	-	6.73	6.2
Critical Hdwy Stg 1	-	-	-	5.73	-
Critical Hdwy Stg 2	-	-	-	5.73	-
Follow-up Hdwy	2.281	-	-	3.797	3.3
Pot Cap-1 Maneuver	1346	-	-	594	879
Stage 1	-	-	-	790	-
Stage 2	-	-	-	787	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1346	-	-	587	879
Mov Cap-2 Maneuver	-	-	-	587	-
Stage 1	-	-	-	781	-
Stage 2	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1346	-	-	-	691
HCM Lane V/C Ratio	0.011	-	-	-	0.04
HCM Control Delay (s)	7.7	0	-	-	10.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
15: Hilliard Dr & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	283	5	33	259	2	61
Future Volume (vph)	283	5	33	259	2	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997			0.870		
Flt Protected				0.994	0.998	
Satd. Flow (prot)	1851	0	0	1840	1574	0
Flt Permitted				0.994	0.998	
Satd. Flow (perm)	1851	0	0	1840	1574	0
Link Speed (mph)	45			45	25	
Link Distance (ft)	716			1499	658	
Travel Time (s)	10.8			22.7	17.9	
Peak Hour Factor	0.90	0.90	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	2%	20%	0%	3%	0%	5%
Adj. Flow (vph)	314	6	46	360	3	85
Shared Lane Traffic (%)						
Lane Group Flow (vph)	320	0	0	406	88	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.6					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	283	5	33	259	2	61
Future Vol, veh/h	283	5	33	259	2	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	72	72	72	72
Heavy Vehicles, %	2	20	0	3	0	5
Mvmt Flow	314	6	46	360	3	85

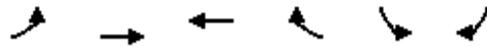
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	320	0	769 317
Stage 1	-	-	-	-	317 -
Stage 2	-	-	-	-	452 -
Critical Hdwy	-	-	4.1	-	6.4 6.25
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.345
Pot Cap-1 Maneuver	-	-	1251	-	372 717
Stage 1	-	-	-	-	743 -
Stage 2	-	-	-	-	645 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1251	-	355 717
Mov Cap-2 Maneuver	-	-	-	-	355 -
Stage 1	-	-	-	-	743 -
Stage 2	-	-	-	-	615 -

Approach	EB	WB	NE
HCM Control Delay, s	0	0.9	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	695	-	-	1251	-
HCM Lane V/C Ratio	0.126	-	-	0.037	-
HCM Control Delay (s)	10.9	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Lanes, Volumes, Timings
 16: N Pike W & Clara Louise Kellogg Drive

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Volume (vph)	6	108	176	22	9	3
Future Volume (vph)	6	108	176	22	9	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.985		0.966	
Flt Protected		0.997			0.964	
Satd. Flow (prot)	0	1730	1792	0	1769	0
Flt Permitted		0.997			0.964	
Satd. Flow (perm)	0	1730	1792	0	1769	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		2450	4008		403	
Travel Time (s)		37.1	60.7		9.2	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.60	0.60
Heavy Vehicles (%)	0%	10%	5%	0%	0%	0%
Adj. Flow (vph)	8	144	200	25	15	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	152	225	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.6%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	6	108	176	22	9	3
Future Vol, veh/h	6	108	176	22	9	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	88	88	60	60
Heavy Vehicles, %	0	10	5	0	0	0
Mvmt Flow	8	144	200	25	15	5

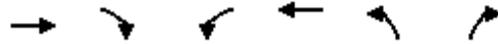
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	225	0	0	373	213
Stage 1	-	-	-	213	-
Stage 2	-	-	-	160	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1356	-	-	632	832
Stage 1	-	-	-	827	-
Stage 2	-	-	-	874	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver	1356	-	-	628	832
Mov Cap-2 Maneuver	-	-	-	628	-
Stage 1	-	-	-	822	-
Stage 2	-	-	-	874	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1356	-	-	-	669
HCM Lane V/C Ratio	0.006	-	-	-	0.03
HCM Control Delay (s)	7.7	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Lanes, Volumes, Timings
17: Wall St & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	274	34	19	258	13	5
Future Volume (vph)	274	34	19	258	13	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.985			0.962		
Flt Protected				0.997	0.965	
Satd. Flow (prot)	1817	0	0	1820	1670	0
Flt Permitted				0.997	0.965	
Satd. Flow (perm)	1817	0	0	1820	1670	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	1499			1239	1096	
Travel Time (s)	22.7			18.8	24.9	
Peak Hour Factor	0.94	0.94	0.82	0.82	0.56	0.56
Heavy Vehicles (%)	3%	3%	5%	4%	0%	20%
Adj. Flow (vph)	291	36	23	315	23	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	327	0	0	338	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.2%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	274	34	19	258	13	5
Future Vol, veh/h	274	34	19	258	13	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	82	82	56	56
Heavy Vehicles, %	3	3	5	4	0	20
Mvmt Flow	291	36	23	315	23	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	327	0	670
Stage 1	-	-	-	-	309
Stage 2	-	-	-	-	361
Critical Hdwy	-	-	4.15	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.245	-	3.5
Pot Cap-1 Maneuver	-	-	1216	-	425
Stage 1	-	-	-	-	749
Stage 2	-	-	-	-	710
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1216	-	415
Mov Cap-2 Maneuver	-	-	-	-	415
Stage 1	-	-	-	-	749
Stage 2	-	-	-	-	694

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	-	-	1216	-
HCM Lane V/C Ratio	0.069	-	-	0.019	-
HCM Control Delay (s)	13.3	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lanes, Volumes, Timings
18: Miller Rd/S Pike W

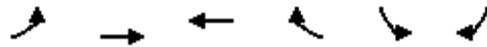
AM Peak
Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	39	183	204	234	243	48
Future Volume (vph)	39	183	204	234	243	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.928		0.978	
Flt Protected	0.950				0.960	
Satd. Flow (prot)	1671	1881	1747	0	1680	0
Flt Permitted	0.389				0.960	
Satd. Flow (perm)	684	1881	1747	0	1680	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			115		13	
Link Speed (mph)		30	30		45	
Link Distance (ft)		449	761		1239	
Travel Time (s)		10.2	17.3		18.8	
Peak Hour Factor	0.88	0.88	0.86	0.86	0.96	0.96
Heavy Vehicles (%)	8%	1%	2%	0%	7%	2%
Adj. Flow (vph)	44	208	237	272	253	50
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	208	509	0	303	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru			
Leading Detector (ft)	20	100	100		20	
Trailing Detector (ft)	0	0	0		0	
Detector 1 Position(ft)	0	0	0		0	
Detector 1 Size(ft)	20	6	6		20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		8.0	
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	

Lanes, Volumes, Timings
18: Miller Rd/S Pike W

AM Peak
Existing 2023 AM

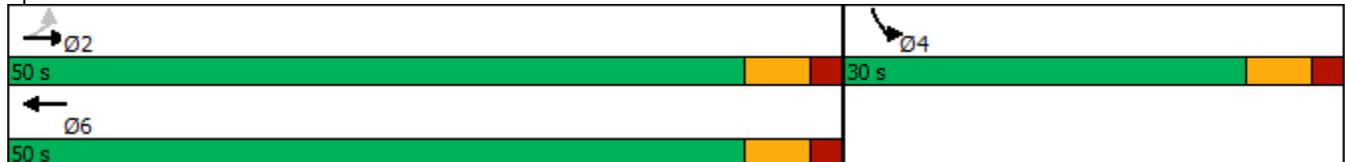


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	2					
Detector Phase	2	2	6		4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	20.0		6.0	
Minimum Split (s)	26.0	26.0	26.0		24.0	
Total Split (s)	50.0	50.0	50.0		30.0	
Total Split (%)	62.5%	62.5%	62.5%		37.5%	
Maximum Green (s)	44.0	44.0	44.0		24.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Min	Min	Min		None	
Walk Time (s)	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)	22.0	22.0	22.0		13.4	
Actuated g/C Ratio	0.46	0.46	0.46		0.28	
v/c Ratio	0.14	0.24	0.59		0.63	
Control Delay	10.0	9.5	11.1		21.0	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	10.0	9.5	11.1		21.0	
LOS	A	A	B		C	
Approach Delay		9.6	11.1		21.0	
Approach LOS		A	B		C	

Intersection Summary

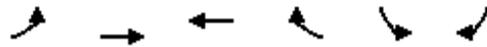
Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 47.7
 Natural Cycle: 50
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 13.6
 Intersection Capacity Utilization 58.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 18: Miller Rd/S Pike W



HCM 6th Signalized Intersection Summary
18: Miller Rd/S Pike W

AM Peak
Existing 2023 AM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	39	183	204	234	243	48
Future Volume (veh/h)	39	183	204	234	243	48
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	1781	1885	1870	1900	1796	1870
Adj Flow Rate, veh/h	44	208	237	0	253	0
Peak Hour Factor	0.88	0.88	0.86	0.86	0.96	0.96
Percent Heavy Veh, %	8	1	2	0	7	2
Cap, veh/h	651	950	942		331	
Arrive On Green	0.50	0.50	0.50	0.00	0.19	0.00
Sat Flow, veh/h	1089	1885	1870	0	1704	0
Grp Volume(v), veh/h	44	208	237	0	254	0
Grp Sat Flow(s),veh/h/ln	1089	1885	1870	0	1711	0
Q Serve(g_s), s	1.0	2.4	2.9	0.0	5.6	0.0
Cycle Q Clear(g_c), s	3.8	2.4	2.9	0.0	5.6	0.0
Prop In Lane	1.00			0.00	1.00	0.00
Lane Grp Cap(c), veh/h	651	950	942		332	
V/C Ratio(X)	0.07	0.22	0.25		0.77	
Avail Cap(c_a), veh/h	1310	2089	2073		1034	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	6.7	5.5	5.6	0.0	15.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	3.7	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	0.6	0.7	0.0	1.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.7	5.6	5.7	0.0	18.8	0.0
LnGrp LOS	A	A	A		B	
Approach Vol, veh/h		252	237		254	
Approach Delay, s/veh		5.8	5.7		18.8	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		26.0		13.7		26.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		44.0		24.0		44.0
Max Q Clear Time (g_c+I1), s		5.8		7.6		4.9
Green Ext Time (p_c), s		1.5		0.6		1.5

Intersection Summary

HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lanes, Volumes, Timings
19: Carolina Ave & S Pike W

AM Peak
Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	406	30	22	421	17	15
Future Volume (vph)	406	30	22	421	17	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			100		100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991				0.936	
Flt Protected			0.950		0.975	
Satd. Flow (prot)	1807	0	1805	1863	1734	0
Flt Permitted			0.950		0.975	
Satd. Flow (perm)	1807	0	1805	1863	1734	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	761			1754	440	
Travel Time (s)	17.3			39.9	10.0	
Peak Hour Factor	0.91	0.91	0.86	0.86	0.73	0.73
Heavy Vehicles (%)	4%	7%	0%	2%	0%	0%
Adj. Flow (vph)	446	33	26	490	23	21
Shared Lane Traffic (%)						
Lane Group Flow (vph)	479	0	26	490	44	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	33.2%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	0.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↑	↔	
Traffic Vol, veh/h	406	30	22	421	17	15
Future Vol, veh/h	406	30	22	421	17	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	86	86	73	73
Heavy Vehicles, %	4	7	0	2	0	0
Mvmt Flow	446	33	26	490	23	21

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	479	0	1005
Stage 1	-	-	-	-	463
Stage 2	-	-	-	-	542
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1094	-	270
Stage 1	-	-	-	-	638
Stage 2	-	-	-	-	587
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1094	-	264
Mov Cap-2 Maneuver	-	-	-	-	264
Stage 1	-	-	-	-	638
Stage 2	-	-	-	-	573

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	358	-	-	1094	-
HCM Lane V/C Ratio	0.122	-	-	0.023	-
HCM Control Delay (s)	16.5	-	-	8.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Lanes, Volumes, Timings
20: Bordeaux Ave & N Pike W

AM Peak
Existing 2023 AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	165	0	121	165	1	41	0	127	2	1	0
Future Volume (vph)	1	165	0	121	165	1	41	0	127	2	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.898				
Flt Protected					0.979			0.988			0.964	
Satd. Flow (prot)	0	1728	0	0	1755	0	0	1678	0	0	1832	0
Flt Permitted					0.979			0.988			0.964	
Satd. Flow (perm)	0	1728	0	0	1755	0	0	1678	0	0	1832	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4008			896			149			335	
Travel Time (s)		91.1			20.4			3.4			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.82	0.82	0.82	0.75	0.75	0.75
Heavy Vehicles (%)	0%	10%	0%	6%	6%	0%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	1	179	0	133	181	1	50	0	155	3	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	0	0	315	0	0	205	0	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.2%
Analysis Period (min)	15
	ICU Level of Service A

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	165	0	121	165	1	41	0	127	2	1	0
Future Vol, veh/h	1	165	0	121	165	1	41	0	127	2	1	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	91	91	91	82	82	82	75	75	75
Heavy Vehicles, %	0	10	0	6	6	0	2	0	0	0	0	0
Mvmt Flow	1	179	0	133	181	1	50	0	155	3	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	182	0	0	179	0	0	629	629	179	707	629	182
Stage 1	-	-	-	-	-	-	181	181	-	448	448	-
Stage 2	-	-	-	-	-	-	448	448	-	259	181	-
Critical Hdwy	4.1	-	-	4.16	-	-	7.12	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.254	-	-	3.518	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1405	-	-	1373	-	-	395	402	869	353	402	866
Stage 1	-	-	-	-	-	-	821	754	-	594	576	-
Stage 2	-	-	-	-	-	-	590	576	-	750	754	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1405	-	-	1373	-	-	361	358	869	266	358	866
Mov Cap-2 Maneuver	-	-	-	-	-	-	361	358	-	266	358	-
Stage 1	-	-	-	-	-	-	820	753	-	593	514	-
Stage 2	-	-	-	-	-	-	525	514	-	616	753	-

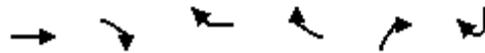
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.3	13.1	17.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	647	1405	-	-	1373	-	-	291
HCM Lane V/C Ratio	0.317	0.001	-	-	0.097	-	-	0.014
HCM Control Delay (s)	13.1	7.6	0	-	7.9	0	-	17.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.4	0	-	-	0.3	-	-	0

Lanes, Volumes, Timings

AM Peak

21: Bordeaux Ave & US 76/378 (Robert E Graham Fwy) EB/US 76/378 (Robert E Graham Fwy)



Lane Group	EBT	EBR	WBR	WBR2	NBR	SBR2
Lane Configurations	↑↑	↑	↑↑	↑	↑	↑
Traffic Volume (vph)	282	168	431	168	77	122
Future Volume (vph)	282	168	431	168	77	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	300		0	
Storage Lanes		1	1		1	
Taper Length (ft)						
Lane Util. Factor	0.95	1.00	0.88	1.00	1.00	1.00
Frt		0.850	0.850	0.850	0.865	0.865
Flt Protected						
Satd. Flow (prot)	3610	1553	2842	1615	1508	1644
Flt Permitted						
Satd. Flow (perm)	3610	1553	2842	1615	1508	1644
Link Speed (mph)	60					
Link Distance (ft)	2871					
Travel Time (s)	32.6					
Peak Hour Factor	0.91	0.91	0.90	0.90	0.74	0.90
Heavy Vehicles (%)	0%	4%	0%	0%	9%	0%
Adj. Flow (vph)	310	185	479	187	104	136
Shared Lane Traffic (%)						
Lane Group Flow (vph)	310	185	479	187	104	136
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Right	Right	Right
Median Width(ft)	0					
Link Offset(ft)	0					
Crosswalk Width(ft)	16					
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		25	60	25	25	25
Sign Control	Free					

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
22: S Pike W & Bordeaux Ave

AM Peak
Existing 2023 AM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	65	339	443	16	156	12
Future Volume (vph)	65	339	443	16	156	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	0	100
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1827	1839	0	1736	1615
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1719	1827	1839	0	1736	1615
Link Speed (mph)		30	30		30	
Link Distance (ft)		1754	1073		396	
Travel Time (s)		39.9	24.4		9.0	
Peak Hour Factor	0.93	0.93	0.85	0.85	0.88	0.88
Heavy Vehicles (%)	5%	4%	2%	25%	4%	0%
Adj. Flow (vph)	70	365	521	19	177	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	365	540	0	177	14
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	46.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	9.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	65	339	443	16	156	12
Future Vol, veh/h	65	339	443	16	156	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	85	85	88	88
Heavy Vehicles, %	5	4	2	25	4	0
Mvmt Flow	70	365	521	19	177	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	540	0	-	0	1036
Stage 1	-	-	-	-	531
Stage 2	-	-	-	-	505
Critical Hdwy	4.15	-	-	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	2.245	-	-	-	3.536
Pot Cap-1 Maneuver	1013	-	-	-	254
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	602
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1013	-	-	-	236
Mov Cap-2 Maneuver	-	-	-	-	236
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	602

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	52.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1013	-	-	-	236	552
HCM Lane V/C Ratio	0.069	-	-	-	0.751	0.025
HCM Control Delay (s)	8.8	-	-	-	55.3	11.7
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.2	-	-	-	5.3	0.1

Lanes, Volumes, Timings
 23: US 15 (N Main St) & N Pike W/Strange St

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗		↗	↕↗	
Traffic Volume (vph)	23	20	259	9	21	16	248	261	19	11	333	22
Future Volume (vph)	23	20	259	9	21	16	248	261	19	11	333	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	100		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	100			100			20			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.953			0.990				0.991
Flt Protected		0.974			0.990		0.950			0.950		
Satd. Flow (prot)	0	1812	1524	0	1586	0	1736	3332	0	1656	3342	0
Flt Permitted		0.830			0.921		0.467			0.557		
Satd. Flow (perm)	0	1544	1524	0	1475	0	853	3332	0	971	3342	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			282		20			9				8
Link Speed (mph)		30			30			25				25
Link Distance (ft)		896			1043			293				718
Travel Time (s)		20.4			23.7			8.0				19.6
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.87	0.87	0.87	0.95	0.95	0.95
Heavy Vehicles (%)	4%	0%	6%	0%	24%	6%	4%	7%	11%	9%	6%	23%
Adj. Flow (vph)	25	22	282	11	26	20	285	300	22	12	351	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	282	0	57	0	285	322	0	12	374	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8!			8!		5	2!				6

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4

Lanes, Volumes, Timings
 23: US 15 (N Main St) & N Pike W/Strange St

AM Peak
 Existing 2023 AM

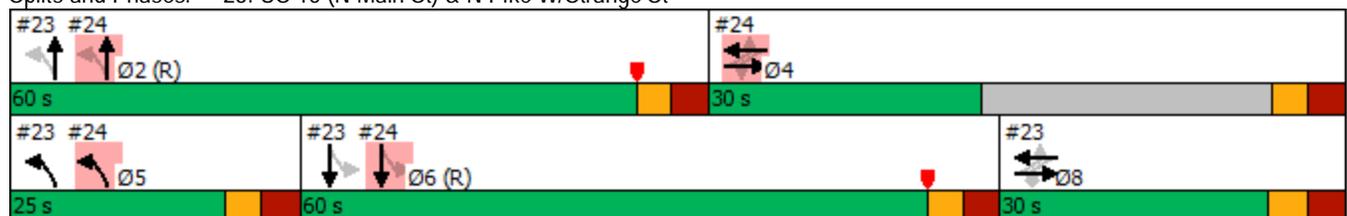


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	8!		8	8!			2!			6		
Detector Phase	8	8	8	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	12.0		12.0	12.0	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0		15.0	34.0		32.0	32.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		25.0	60.0		60.0	60.0	
Total Split (%)	26.1%	26.1%	26.1%	26.1%	26.1%		21.7%	52.2%		52.2%	52.2%	
Maximum Green (s)	23.2	23.2	23.2	23.2	23.2		18.5	53.9		53.9	53.9	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.1		3.1	3.1	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Lead/Lag							Lead	Lead			Lag	Lag
Lead-Lag Optimize?							Yes	Yes			Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	2.5		2.5	2.5	
Recall Mode	None	None	None	None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0			20.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)		10.1	10.1		10.1		69.5	69.9		70.6	70.6	
Actuated g/C Ratio		0.09	0.09		0.09		0.60	0.61		0.61	0.61	
v/c Ratio		0.35	0.72		0.39		0.45	0.16		0.02	0.18	
Control Delay		54.5	16.6		40.9		6.7	3.9		12.4	11.0	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay		54.5	16.6		40.9		6.8	4.1		12.4	11.0	
LOS		D	B		D		A	A		B	B	
Approach Delay		22.0			40.9			5.3			11.1	
Approach LOS		C			D			A			B	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 2.5 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 12.4
 Intersection LOS: B
 Intersection Capacity Utilization 48.8%
 ICU Level of Service A
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 23: US 15 (N Main St) & N Pike W/Strange St



Lane Group	Ø4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	20.0
Total Split (s)	30.0
Total Split (%)	26%
Maximum Green (s)	23.5
Yellow Time (s)	3.0
All-Red Time (s)	3.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	30.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

HCM 6th Edition methodology does not support clustered intersections.

HCM Signalized Intersection Capacity Analysis

23: US 15 (N Main St) & N Pike W/Strange St

AM Peak
Existing 2023 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗		↗	↕↗	
Traffic Volume (vph)	23	20	259	9	21	16	248	261	19	11	333	22
Future Volume (vph)	23	20	259	9	21	16	248	261	19	11	333	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.95		1.00	0.99		1.00	0.99	
Flt Protected		0.97	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1812	1524		1586		1736	3331		1656	3341	
Flt Permitted		0.83	1.00		0.92		0.47	1.00		0.56	1.00	
Satd. Flow (perm)		1544	1524		1474		853	3331		971	3341	
Peak-hour factor, PHF	0.92	0.92	0.92	0.82	0.82	0.82	0.87	0.87	0.87	0.95	0.95	0.95
Adj. Flow (vph)	25	22	282	11	26	20	285	300	22	12	351	23
RTOR Reduction (vph)	0	0	257	0	18	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	47	25	0	39	0	285	318	0	12	371	0
Heavy Vehicles (%)	4%	0%	6%	0%	24%	6%	4%	7%	11%	9%	6%	23%
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8!			8!		5	2!			6	
Permitted Phases	8!		8	8!			2!			6		
Actuated Green, G (s)		10.2	10.2		10.2		69.9	69.9		70.6	70.6	
Effective Green, g (s)		10.2	10.2		10.2		69.9	69.9		70.6	70.6	
Actuated g/C Ratio		0.09	0.09		0.09		0.61	0.61		0.61	0.61	
Clearance Time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	2.5		2.5	2.5	
Lane Grp Cap (vph)		136	135		130		632	2024		596	2051	
v/s Ratio Prot							c0.06	0.10			c0.11	
v/s Ratio Perm		c0.03	0.02		0.03		c0.22			0.01		
v/c Ratio		0.35	0.19		0.30		0.45	0.16		0.02	0.18	
Uniform Delay, d1		49.3	48.6		49.0		10.8	9.8		8.7	9.6	
Progression Factor		1.00	1.00		1.00		0.38	0.36		1.00	1.00	
Incremental Delay, d2		1.5	0.7		1.3		0.5	0.2		0.1	0.2	
Delay (s)		50.8	49.2		50.3		4.6	3.7		8.7	9.8	
Level of Service		D	D		D		A	A		A	A	
Approach Delay (s)		49.4			50.3			4.1			9.8	
Approach LOS		D			D			A			A	

Intersection Summary

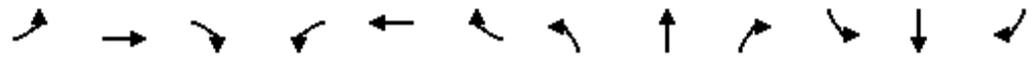
HCM 2000 Control Delay	18.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lanes, Volumes, Timings
 24: US 15 (N Main St) & S Pike W/S Pike E

AM Peak
 Existing 2023 AM

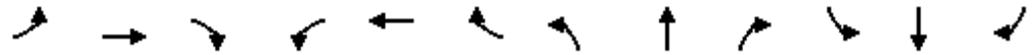


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Volume (vph)	1	2	2	91	2	39	2	489	73	42	562	3
Future Volume (vph)	1	2	2	91	2	39	2	489	73	42	562	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	175		0	125		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			20		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.925			0.856			0.981			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1758	0	1787	1626	0	1805	3366	0	1612	3403	0
Flt Permitted	0.726			0.751			0.361			0.394		
Satd. Flow (perm)	1379	1758	0	1413	1626	0	686	3366	0	668	3403	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			46			19				1
Link Speed (mph)		30			30			25				25
Link Distance (ft)		800			766			650				293
Travel Time (s)		18.2			17.4			17.7				8.0
Peak Hour Factor	0.42	0.42	0.42	0.85	0.85	0.85	0.83	0.83	0.83	0.98	0.98	0.98
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	6%	0%	12%	6%	0%
Adj. Flow (vph)	2	5	5	107	2	46	2	589	88	43	573	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	10	0	107	48	0	2	677	0	43	576	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru										
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex										
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4!			4!		5!	2			6!	

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8

Lanes, Volumes, Timings
 24: US 15 (N Main St) & S Pike W/S Pike E

AM Peak
 Existing 2023 AM



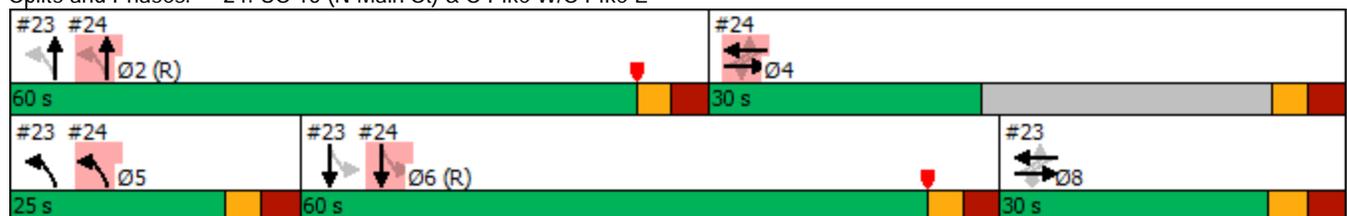
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!			4!			2			6!		
Detector Phase	4	4		4	4		5	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	12.0		12.0	12.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		15.0	34.0		32.0	32.0	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	60.0		60.0	60.0	
Total Split (%)	26.1%	26.1%		26.1%	26.1%		21.7%	52.2%		52.2%	52.2%	
Maximum Green (s)	23.5	23.5		23.5	23.5		18.5	53.9		53.9	53.9	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.5	3.5		3.5	3.5		3.5	3.1		3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes										
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.5		2.5	2.5	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	30.0	30.0		30.0	30.0			20.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effect Green (s)	32.5	32.5		32.5	32.5		69.5	69.9		70.6	70.6	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.60	0.61		0.61	0.61	
v/c Ratio	0.01	0.02		0.27	0.10		0.00	0.33		0.10	0.28	
Control Delay	27.0	20.0		32.9	8.7		11.0	11.8		10.0	8.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.4	
Total Delay	27.0	20.0		32.9	8.7		11.0	11.8		10.0	8.8	
LOS	C	B		C	A		B	B		A	A	
Approach Delay		21.2			25.4			11.8			8.9	
Approach LOS		C			C			B			A	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 2.5 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 53.1%
 ICU Level of Service A
 Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 24: US 15 (N Main St) & S Pike W/S Pike E



Lane Group	Ø8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	20.0
Total Split (s)	30.0
Total Split (%)	26%
Maximum Green (s)	23.2
Yellow Time (s)	3.3
All-Red Time (s)	3.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

HCM 6th Edition methodology does not support clustered intersections.

HCM Signalized Intersection Capacity Analysis

24: US 15 (N Main St) & S Pike W/S Pike E

AM Peak
Existing 2023 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (vph)	1	2	2	91	2	39	2	489	73	42	562	3
Future Volume (vph)	1	2	2	91	2	39	2	489	73	42	562	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.5	6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	0.86		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	1758		1787	1627		1805	3364		1612	3404	
Flt Permitted	0.73	1.00		0.75	1.00		0.36	1.00		0.39	1.00	
Satd. Flow (perm)	1379	1758		1413	1627		686	3364		669	3404	
Peak-hour factor, PHF	0.42	0.42	0.42	0.85	0.85	0.85	0.83	0.83	0.83	0.98	0.98	0.98
Adj. Flow (vph)	2	5	5	107	2	46	2	589	88	43	573	3
RTOR Reduction (vph)	0	4	0	0	33	0	0	7	0	0	0	0
Lane Group Flow (vph)	2	6	0	107	15	0	2	670	0	43	576	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	6%	0%	12%	6%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4!		4!	4!		5!	2		6!	6!	
Permitted Phases	4!			4!			2			6!		
Actuated Green, G (s)	32.5	32.5		32.5	32.5		69.9	69.9		70.6	70.6	
Effective Green, g (s)	32.5	32.5		32.5	32.5		69.9	69.9		70.6	70.6	
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.61	0.61		0.61	0.61	
Clearance Time (s)	6.5	6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.5		2.5	2.5	
Lane Grp Cap (vph)	389	496		399	459		560	2044		410	2089	
v/s Ratio Prot		0.00			0.01		0.00	c0.20			0.17	
v/s Ratio Perm	0.00			c0.08			0.00			0.06		
v/c Ratio	0.01	0.01		0.27	0.03		0.00	0.33		0.10	0.28	
Uniform Delay, d1	29.6	29.7		32.0	29.9		9.2	11.0		9.2	10.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.76	0.70	
Incremental Delay, d2	0.0	0.0		0.4	0.0		0.0	0.4		0.5	0.3	
Delay (s)	29.6	29.7		32.4	29.9		9.2	11.5		7.5	7.5	
Level of Service	C	C		C	C		A	B		A	A	
Approach Delay (s)		29.7			31.6			11.5			7.5	
Approach LOS		C			C			B			A	

Intersection Summary

HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lanes, Volumes, Timings

AM Peak

25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

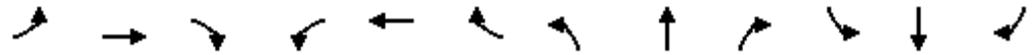
Existing 2023 AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	244	145	5	178	291	40	153	3	228	177	247
Future Volume (vph)	99	244	145	5	178	291	40	153	3	228	177	247
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		125	125		0	250		100	250		225
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frt		0.944				0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3269	0	1805	1845	1482	1805	3431	0	3155	1863	1568
Flt Permitted	0.440			0.511			0.950			0.950		
Satd. Flow (perm)	828	3269	0	971	1845	1482	1805	3431	0	3155	1863	1568
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91				355		2				268
Link Speed (mph)		30			25			35				25
Link Distance (ft)		1073			898			498				650
Travel Time (s)		24.4			24.5			9.7				17.7
Peak Hour Factor	0.95	0.95	0.95	0.82	0.82	0.82	0.91	0.91	0.91	0.92	0.92	0.92
Heavy Vehicles (%)	1%	5%	3%	0%	3%	9%	0%	5%	0%	11%	2%	3%
Adj. Flow (vph)	104	257	153	6	217	355	44	168	3	248	192	268
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	410	0	6	217	355	44	171	0	248	192	268
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8	1	5	2		1	6	

Lanes, Volumes, Timings
 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

AM Peak
 Existing 2023 AM

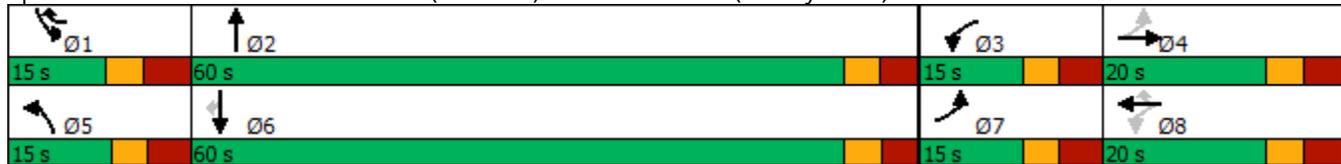


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8						6
Detector Phase	7	4		3	8	1	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	12.0		6.0	12.0	12.0
Minimum Split (s)	15.0	15.0		15.0	15.0	15.0	15.0	40.0		15.0	40.0	40.0
Total Split (s)	15.0	20.0		15.0	20.0	15.0	15.0	60.0		15.0	60.0	60.0
Total Split (%)	13.6%	18.2%		13.6%	18.2%	13.6%	13.6%	54.5%		13.6%	54.5%	54.5%
Maximum Green (s)	8.5	13.5		8.5	13.5	8.1	8.5	53.7		8.1	53.8	53.8
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.5	3.5		3.5	3.5	3.9	3.5	3.3		3.9	3.2	3.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5	6.9	6.5	6.3		6.9	6.2	6.2
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.5		3.0	2.5	2.5
Recall Mode	None	None		None	None	None	None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		25.0			29.0			26.0			26.0	26.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	24.3	22.7		18.3	13.7	28.5	7.1	13.5		8.2	20.7	20.7
Actuated g/C Ratio	0.36	0.34		0.27	0.21	0.43	0.11	0.20		0.12	0.31	0.31
v/c Ratio	0.25	0.35		0.02	0.57	0.42	0.23	0.25		0.64	0.33	0.40
Control Delay	15.4	14.6		14.0	33.0	3.7	32.2	24.1		38.6	24.0	5.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	15.4	14.6		14.0	33.0	3.7	32.2	24.1		38.6	24.0	5.5
LOS	B	B		B	C	A	C	C		D	C	A
Approach Delay		14.8			14.8			25.8			22.1	
Approach LOS		B			B			C			C	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 66.7
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 18.5
 Intersection LOS: B
 Intersection Capacity Utilization 54.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)



HCM 6th Signalized Intersection Summary
 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

AM Peak
 Existing 2023 AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖↗	↖	↖
Traffic Volume (veh/h)	99	244	145	5	178	291	40	153	3	228	177	247
Future Volume (veh/h)	99	244	145	5	178	291	40	153	3	228	177	247
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	1885	1826	1856	1900	1856	1767	1900	1826	1900	1737	1870	1856
Adj Flow Rate, veh/h	104	257	153	6	217	355	44	168	3	248	192	268
Peak Hour Factor	0.95	0.95	0.95	0.82	0.82	0.82	0.91	0.91	0.91	0.92	0.92	0.92
Percent Heavy Veh, %	1	5	3	0	3	9	0	5	0	11	2	3
Cap, veh/h	347	599	345	308	394	478	92	659	12	343	470	395
Arrive On Green	0.08	0.28	0.28	0.01	0.21	0.21	0.05	0.19	0.19	0.11	0.25	0.25
Sat Flow, veh/h	1795	2120	1221	1810	1856	1497	1810	3487	62	3209	1870	1572
Grp Volume(v), veh/h	104	209	201	6	217	355	44	83	88	248	192	268
Grp Sat Flow(s),veh/h/ln	1795	1735	1606	1810	1856	1497	1810	1735	1815	1605	1870	1572
Q Serve(g_s), s	2.8	6.2	6.5	0.2	6.6	13.4	1.5	2.6	2.6	4.8	5.4	9.8
Cycle Q Clear(g_c), s	2.8	6.2	6.5	0.2	6.6	13.4	1.5	2.6	2.6	4.8	5.4	9.8
Prop In Lane	1.00		0.76	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	347	490	454	308	394	478	92	328	343	343	470	395
V/C Ratio(X)	0.30	0.43	0.44	0.02	0.55	0.74	0.48	0.25	0.26	0.72	0.41	0.68
Avail Cap(c_a), veh/h	445	490	454	533	394	478	242	1466	1534	409	1584	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	18.6	18.7	19.3	22.3	19.3	29.3	22.0	22.0	27.5	19.9	21.5
Incr Delay (d2), s/veh	0.5	0.6	0.7	0.0	1.6	6.1	3.8	0.3	0.3	5.0	0.4	1.5
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	1.1	2.4	2.3	0.1	2.9	5.2	0.7	1.0	1.1	2.0	2.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	19.2	19.4	19.4	23.9	25.4	33.1	22.3	22.2	32.5	20.3	23.0
LnGrp LOS	B	B	B	B	C	C	C	C	C	C	C	C
Approach Vol, veh/h		514			578			215			708	
Approach Delay, s/veh		19.0			24.8			24.5			25.6	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.7	18.3	7.1	24.4	9.7	22.2	11.5	20.0				
Change Period (Y+Rc), s	6.9	* 6.3	6.5	6.5	6.5	* 6.3	6.5	6.5				
Max Green Setting (Gmax), s	8.1	* 54	8.5	13.5	8.5	* 54	8.5	13.5				
Max Q Clear Time (g_c+I1), s	6.8	4.6	2.2	8.5	3.5	11.8	4.8	15.4				
Green Ext Time (p_c), s	0.1	0.8	0.0	1.1	0.0	1.7	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
 26: Brookehollow Place Dwy & S Pike W

AM Peak
 Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	285	3	4	249	4	6
Future Volume (vph)	285	3	4	249	4	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999			0.916		
Flt Protected				0.999	0.982	
Satd. Flow (prot)	1861	0	0	1844	1563	0
Flt Permitted				0.999	0.982	
Satd. Flow (perm)	1861	0	0	1844	1563	0
Link Speed (mph)	45			45	15	
Link Distance (ft)	1290			716	767	
Travel Time (s)	19.5			10.8	34.9	
Peak Hour Factor	0.87	0.87	0.74	0.74	0.63	0.63
Heavy Vehicles (%)	2%	0%	0%	3%	25%	0%
Adj. Flow (vph)	328	3	5	336	6	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	0	341	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

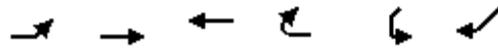
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.3%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	285	3	4	249	4	6
Future Vol, veh/h	285	3	4	249	4	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	74	74	63	63
Heavy Vehicles, %	2	0	0	3	25	0
Mvmt Flow	328	3	5	336	6	10

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	331	0	676
Stage 1	-	-	-	-	330
Stage 2	-	-	-	-	346
Critical Hdwy	-	-	4.1	-	6.65
Critical Hdwy Stg 1	-	-	-	-	5.65
Critical Hdwy Stg 2	-	-	-	-	5.65
Follow-up Hdwy	-	-	2.2	-	3.725
Pot Cap-1 Maneuver	-	-	1240	-	385
Stage 1	-	-	-	-	680
Stage 2	-	-	-	-	668
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1240	-	383
Mov Cap-2 Maneuver	-	-	-	-	383
Stage 1	-	-	-	-	680
Stage 2	-	-	-	-	665

Approach	EB	WB	NE
HCM Control Delay, s	0	0.1	12
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	531	-	-	1240	-
HCM Lane V/C Ratio	0.03	-	-	0.004	-
HCM Control Delay (s)	12	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↑				↑
Traffic Volume (vph)	0	212	0	0	0	419
Future Volume (vph)	0	212	0	0	0	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	1863	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1863	0	0	0	1611
Link Speed (mph)		60	60		60	
Link Distance (ft)		1214	698		859	
Travel Time (s)		13.8	7.9		9.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	230	0	0	0	455
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	230	0	0	0	455
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	40			40	15	40
Sign Control		Free	Stop		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.6%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 39: US 76/378 (Robert E Graham Fwy) EB

AM Peak
 Existing 2023 AM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑					↗
Traffic Volume (vph)	212	0	0	0	0	222
Future Volume (vph)	212	0	0	0	0	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	1863	0	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	1863	0	0	0	0	1611
Link Speed (mph)	60			60	35	
Link Distance (ft)	698			1021	170	
Travel Time (s)	7.9			11.6	3.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	230	0	0	0	0	241
Shared Lane Traffic (%)						
Lane Group Flow (vph)	230	0	0	0	0	241
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	L NA	Right	Left	Left	Left	R NA
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		60	15		15	60
Sign Control	Free			Stop	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.6% ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 42: US 76 Bus/US 521 (Broad Street/US 76 Bus/US 521 (Broad Street))

AM Peak
 Existing 2023 AM



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Volume (vph)	0	74	0	673	856	0
Future Volume (vph)	0	74	0	673	856	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	1.00
Fr _t	0.865					
Fl _t Protected						
Satd. Flow (prot)	0	1596	0	5085	3539	0
Fl _t Permitted						
Satd. Flow (perm)	0	1596	0	5085	3539	0
Link Speed (mph)	30			40	40	
Link Distance (ft)	357			329	283	
Travel Time (s)	8.1			5.6	4.8	
Peak Hour Factor	0.92	0.88	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%
Adj. Flow (vph)	0	84	0	732	930	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	84	0	732	930	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	Left	Left	Left	Right
Median Width(ft)	0			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.9% ICU Level of Service A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	74	0	673	856	0
Future Vol, veh/h	0	74	0	673	856	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	88	92	92	92	92
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	0	84	0	732	930	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	465	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.96	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.33	-
Pot Cap-1 Maneuver	0	541	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	541	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 541	-
HCM Lane V/C Ratio	- 0.155	-
HCM Control Delay (s)	- 12.9	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 0.5	-



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations				↑		↗
Traffic Volume (vph)	0	0	0	419	0	212
Future Volume (vph)	0	0	0	419	0	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	0	1611
Link Speed (mph)	40			60	40	
Link Distance (ft)	270			1214	329	
Travel Time (s)	4.6			13.8	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	455	0	230
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	455	0	230
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	40
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.7%
Analysis Period (min)	15
	ICU Level of Service A

Summary of All Intervals

Start Time	6:50
End Time	8:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	5593
Vehs Exited	5582
Starting Vehs	229
Ending Vehs	240
Travel Distance (mi)	6622
Travel Time (hr)	224.1
Total Delay (hr)	49.3
Total Stops	6100
Fuel Used (gal)	232.5

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	
Vehs Entered	5593
Vehs Exited	5582
Starting Vehs	229
Ending Vehs	240
Travel Distance (mi)	6622
Travel Time (hr)	224.1
Total Delay (hr)	49.3
Total Stops	6100
Fuel Used (gal)	232.5

Arterial Level of Service: EB US 76/378 (Robert E Graham Fwy) WB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E)	37	-	-	0.2	-
Total		-	-	0.2	-

Arterial Level of Service: WB US 76/378 (Robert E Graham Fwy) WB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	70	0.8	29.2	0.5	58
	32	0.4	13.9	0.2	59
	31	2.3	64.1	1.1	59
	9	0.7	9.5	0.2	61
US 76/378 (Robert E)	37	0.7	11.6	0.2	51
US 76/378 (Robert E)	51	2.0	17.3	0.2	48
Jefferson Rd	1	0.9	4.7	0.1	39
Total		7.7	150.4	2.4	56

Arterial Level of Service: EB Jefferson Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	3	5.4	20.6	0.3	46
Total		5.4	20.6	0.3	46

Arterial Level of Service: SW Jefferson Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	3	25.8	47.3	0.2	16
US 76/378 (Robert E)	1	4.5	33.1	0.3	29
Total		30.2	80.4	0.5	21

Arterial Level of Service: EB US 76 Bus (Broad St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Hastings Dr	7	9.8	31.0	0.2	28
Total		9.8	31.0	0.2	28

Arterial Level of Service: WB US 76 Bus (Broad St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E	2	2.5	22.3	0.2	39
Total		2.5	22.3	0.2	39

Arterial Level of Service: NE US 76/378 (Robert E Graham Fwy) EB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E	51	6.2	10.4	0.1	22
Total		6.2	10.4	0.1	22

Arterial Level of Service: NB US 521 (Camden Hwy)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
S Pike W	6	-	-	0.1	-
	5	0.9	5.3	0.0	31
N Pike W	4	1.5	5.7	0.0	31
Jefferson Rd	3	4.2	7.0	0.0	14
Total		6.7	18.0	0.2	50

Arterial Level of Service: SB US 521 (Camden Hwy)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Jefferson Rd	3	7.3	25.6	0.2	29
N Pike W	4	1.9	4.6	0.0	22
	5	1.2	5.4	0.0	33
S Pike W	6	0.4	4.2	0.0	40
US 76 Bus (Broad Str	7	54.2	64.5	0.1	7
Total		65.0	104.3	0.5	16

Arterial Level of Service: EB N Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Electric Dr	11	1.0	30.0	0.4	48
Farmers Telephone Rd	14	0.9	42.1	0.5	47
Clara Louise Kellogg	16	1.1	36.2	0.5	46
Bordeaux Ave	20	1.7	78.7	0.8	35
US 15 (N Main St)	23	40.8	59.4	0.2	10
Total		45.5	246.3	2.3	34

Arterial Level of Service: WB N Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bordeaux Ave	20	5.2	23.6	0.2	26
Clara Louise Kellogg	16	2.3	60.1	0.8	45
Farmers Telephone Rd	14	2.0	37.9	0.5	44
Electric Dr	11	2.6	43.7	0.5	45
US 521 (Camden Hwy)	4	44.5	81.8	0.4	18
Total		56.6	247.1	2.3	34

Arterial Level of Service: EB S Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	8	3.3	21.5	0.2	26
Market St	10	1.8	20.8	0.2	34
E Wesmark Blvd	12	1.7	16.2	0.2	39
Bultman Dr	13	1.5	23.6	0.3	43
Brookehollow Place D	26	1.0	20.1	0.2	44
Hilliard Dr	15	0.9	11.7	0.1	42
Wall St	17	1.7	22.9	0.3	45
Miller Rd	18	18.9	41.1	0.2	21
Carolina Ave	19	1.8	18.4	0.1	28
Bordeaux Ave	22	2.5	41.0	0.3	29
N Main St	25	17.5	41.4	0.2	18
Total		52.5	278.9	2.4	31

Arterial Level of Service: WB S Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bordeaux Ave	22	2.5	27.7	0.2	26
Carolina Ave	19	2.3	42.1	0.3	28
	18	10.7	28.1	0.1	18
Wall St	17	9.1	38.1	0.2	22
Hilliard Dr	15	1.7	23.2	0.3	44
Brookehollow Place D	26	0.9	11.4	0.1	43
Bultman Dr	13	1.8	20.9	0.2	42
E Wesmark Blvd	12	3.4	25.0	0.3	41
Market St	10	2.1	15.8	0.2	40
	8	0.6	18.9	0.2	37
US 521 (Camden Hwy)	6	49.9	67.8	0.2	8
Total		85.0	319.0	2.4	27

Arterial Level of Service: EB US 76 Bus (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Hastings Dr	7	9.8	31.0	0.2	28
Total		9.8	31.0	0.2	28

Arterial Level of Service: WB US 76 Bus (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E)	2	2.5	22.3	0.2	39
Total		2.5	22.3	0.2	39

Arterial Level of Service: WB US 76 Bus/US 521 (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	7	11.6	16.4	0.1	12
Total		11.6	16.4	0.1	12

Arterial Level of Service: SB US 76 Bus/US 521 (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	1.5	6.5	0.1	29
Total		1.5	6.5	0.1	29

Arterial Level of Service: NB US 15 (N Main St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
S Pike E	24	10.7	26.9	0.1	16
Strange St	23	2.7	10.9	0.1	18
Total		13.4	37.9	0.2	17

Arterial Level of Service: SB US 15 (N Main St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N Pike W	23	10.2	29.3	0.1	17
S Pike W	24	4.0	11.8	0.1	17
S Pike W	25	14.6	31.9	0.1	14
Total		28.8	73.0	0.3	16

Intersection: 1: US 76/378 (Robert E Graham Fwy) WB & Jefferson Rd

Movement	WB	SW
Directions Served	T	R
Maximum Queue (ft)	96	75
Average Queue (ft)	9	7
95th Queue (ft)	44	33
Link Distance (ft)	189	1275
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: US 76/378 (Broad Street)/US 76 Bus (Broad St) & US 76/378 (Robert E Graham Fwy) EB

Movement	EB	WB
Directions Served	L	TR
Maximum Queue (ft)	81	54
Average Queue (ft)	48	2
95th Queue (ft)	81	18
Link Distance (ft)	381	1128
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: US 521 (Camden Hwy) & Jefferson Rd

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	25	70	157	39	90	106	149	207	131
Average Queue (ft)	3	27	60	14	34	48	42	89	35
95th Queue (ft)	15	57	112	35	87	88	100	170	96
Link Distance (ft)			1070		88	88		1030	1030
Upstream Blk Time (%)					1	1			
Queuing Penalty (veh)					2	2			
Storage Bay Dist (ft)		75		25			150		
Storage Blk Time (%)		0	5	11	7		0	1	
Queuing Penalty (veh)		0	2	27	2		0	1	

Intersection: 4: US 521 (Camden Hwy) & N Pike W

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	109	72	74	66	133	49
Average Queue (ft)	52	7	9	36	43	2
95th Queue (ft)	90	36	39	59	109	16
Link Distance (ft)	2064	197	197		88	88
Upstream Blk Time (%)					1	
Queuing Penalty (veh)					7	
Storage Bay Dist (ft)				25		
Storage Blk Time (%)				20	1	
Queuing Penalty (veh)				85	1	

Intersection: 5: US 521 (Camden Hwy)

Movement	WB	NB	NB	SB
Directions Served	LR	T	T	T
Maximum Queue (ft)	108	51	30	54
Average Queue (ft)	47	3	2	2
95th Queue (ft)	87	22	13	18
Link Distance (ft)	988	179	179	197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: US 521 (Camden Hwy) & S Pike W

Movement	WB	WB	NB	SB	SB	SB
Directions Served	L	R	TR	L	T	T
Maximum Queue (ft)	44	94	22	174	179	121
Average Queue (ft)	6	40	3	108	16	4
95th Queue (ft)	27	73	16	161	95	40
Link Distance (ft)	736		542		179	179
Upstream Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	
Storage Bay Dist (ft)		150		200		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				1	0	

Intersection: 7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	L	LTR
Maximum Queue (ft)	150	179	110	89	174	154	423	436
Average Queue (ft)	43	38	17	28	91	53	145	172
95th Queue (ft)	108	97	61	67	159	138	257	282
Link Distance (ft)		1128	1128		227	227	542	542
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	150			200				
Storage Blk Time (%)	1	0						
Queuing Penalty (veh)	2	0						

Intersection: 8: S Pike W

Movement	EB
Directions Served	LT
Maximum Queue (ft)	121
Average Queue (ft)	48
95th Queue (ft)	101
Link Distance (ft)	736
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: US 76/378 (Robert E Graham Fwy) WB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 10: Market St & S Pike W

Movement	WB	NB
Directions Served	LT	L
Maximum Queue (ft)	52	19
Average Queue (ft)	11	1
95th Queue (ft)	39	6
Link Distance (ft)	845	967
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: N Pike W & Electric Dr

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	31	62
Average Queue (ft)	3	14
95th Queue (ft)	17	43
Link Distance (ft)	2064	703
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: E Wesmark Blvd & S Pike W

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	55	17	44
Average Queue (ft)	19	6	13
95th Queue (ft)	48	19	32
Link Distance (ft)	1428	820	820
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Bultman Dr & S Pike W

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	55	54
Average Queue (ft)	12	30
95th Queue (ft)	36	55
Link Distance (ft)	1224	1069
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: N Pike W & Farmers Telephone Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	53	61
Average Queue (ft)	3	17
95th Queue (ft)	20	46
Link Distance (ft)	2830	666
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Hilliard Dr & S Pike W

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	28	73
Average Queue (ft)	6	28
95th Queue (ft)	25	53
Link Distance (ft)	1432	627
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: N Pike W & Clara Louise Kellogg Drive

Movement	SB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	12
95th Queue (ft)	35
Link Distance (ft)	374
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Wall St & S Pike W

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	28	68
Average Queue (ft)	4	12
95th Queue (ft)	18	39
Link Distance (ft)	1184	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Miller Rd/S Pike W

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	50	75	134	267
Average Queue (ft)	19	38	55	106
95th Queue (ft)	45	76	99	181
Link Distance (ft)		420	703	1184
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19: Carolina Ave & S Pike W

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	31	31
Average Queue (ft)	7	20
95th Queue (ft)	28	43
Link Distance (ft)		405
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Bordeaux Ave & N Pike W

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	68	79	28
Average Queue (ft)	15	39	2
95th Queue (ft)	48	90	14
Link Distance (ft)	820	79	305
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		2	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Bordeaux Ave & US 76/378 (Robert E Graham Fwy) EB/US 76/378 (Robert E Graham Fwy)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 22: S Pike W & Bordeaux Ave

Movement	EB	WB	SB	SB
Directions Served	L	TR	L	R
Maximum Queue (ft)	55	35	158	30
Average Queue (ft)	21	1	51	9
95th Queue (ft)	52	12	102	31
Link Distance (ft)		972	311	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150			100
Storage Blk Time (%)			2	
Queuing Penalty (veh)			0	

Intersection: 23: US 15 (N Main St) & N Pike W/Strange St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	87	136	117	109	43	52	28	137	163
Average Queue (ft)	26	64	46	56	3	10	5	45	65
95th Queue (ft)	70	107	97	102	18	34	20	99	133
Link Distance (ft)	820		991		218	218		682	682
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		100		100			75		
Storage Blk Time (%)	0	1		1				3	
Queuing Penalty (veh)	0	0		1				0	

Intersection: 24: US 15 (N Main St) & S Pike W/S Pike E

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	31	30	138	52	28	161	152	72	154	158
Average Queue (ft)	1	4	67	22	1	76	63	25	57	81
95th Queue (ft)	10	21	119	45	9	153	127	61	122	151
Link Distance (ft)		754		719		561	561		218	218
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	175		175		125			100		
Storage Blk Time (%)						2			2	
Queuing Penalty (veh)						0			1	

Intersection: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	R	L	T	TR	L	L	T
Maximum Queue (ft)	83	119	107	28	158	98	74	92	30	113	182	180
Average Queue (ft)	37	46	59	4	85	56	28	55	7	54	80	70
95th Queue (ft)	70	82	98	20	138	93	64	86	28	100	130	133
Link Distance (ft)		972			842	842		448			561	561
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250		125	125			250		100	250		
Storage Blk Time (%)		0	0		2			0				
Queuing Penalty (veh)		0	0		0			0				

Intersection: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

Movement	SB
Directions Served	R
Maximum Queue (ft)	186
Average Queue (ft)	74
95th Queue (ft)	137
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 26: Brookehollow Place Dwy & S Pike W

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	54	60
Average Queue (ft)	4	9
95th Queue (ft)	24	32
Link Distance (ft)	661	727
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: US 76/378 (Robert E Graham Fwy) WB & US 76/378 (Robert E Graham Fwy) EB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 39: US 76/378 (Robert E Graham Fwy) EB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: US 76 Bus/US 521 (Broad Street/US 76 Bus/US 521 (Broad Street))

Movement	EB
Directions Served	R
Maximum Queue (ft)	78
Average Queue (ft)	31
95th Queue (ft)	60
Link Distance (ft)	310
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 51: US 76/378 (Robert E Graham Fwy) EB & US 76/378 (Robert E Graham Fwy) WB

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 138

Lanes, Volumes, Timings
 1: US 76/378 (Robert E Graham Fwy) WB & Jefferson Rd

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑			↗
Traffic Volume (vph)	0	0	380	0	0	155
Future Volume (vph)	0	0	380	0	0	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.865
Fl _t Protected						
Satd. Flow (prot)	0	0	1810	0	0	1580
Fl _t Permitted						
Satd. Flow (perm)	0	0	1810	0	0	1580
Link Speed (mph)		40	40		35	
Link Distance (ft)		141	270		1395	
Travel Time (s)		2.4	4.6		27.2	
Peak Hour Factor	0.92	0.92	0.89	0.92	0.92	0.84
Heavy Vehicles (%)	2%	2%	5%	2%	2%	4%
Adj. Flow (vph)	0	0	427	0	0	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	427	0	0	185
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			40	15	9
Sign Control		Stop	Free		Free	

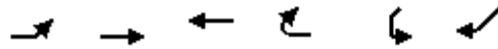
Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings

PM Peak

2: US 76/378 (Broad Street)/US 76 Bus (Broad St) & US 76/378 (Robert E Graham Fwy) EB



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	365	874	864	12	0	0
Future Volume (vph)	365	874	864	12	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	0.95	1.00	1.00
Fr _t			0.998			
Fl _t Protected	0.950					
Satd. Flow (prot)	1736	3574	3568	0	0	0
Fl _t Permitted	0.950					
Satd. Flow (perm)	1736	3574	3568	0	0	0
Link Speed (mph)		40	40		40	
Link Distance (ft)		397	1287		329	
Travel Time (s)		6.8	21.9		5.6	
Peak Hour Factor	0.93	0.93	0.91	0.91	0.92	0.92
Heavy Vehicles (%)	4%	1%	1%	0%	2%	2%
Adj. Flow (vph)	392	940	949	13	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	392	940	962	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	18		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.2%
	ICU Level of Service A
Analysis Period (min)	15

Lanes, Volumes, Timings
 3: US 521 (Camden Hwy) & Jefferson Rd

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗		↖	↕		↖	↕	
Traffic Volume (vph)	0	1	5	37	91	82	60	905	51	77	661	4
Future Volume (vph)	0	1	5	37	91	82	60	905	51	77	661	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	75		0	25		0	150		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	100			100			15			0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.887			0.929			0.992				0.999
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	1685	0	1805	1672	0	1805	3471	0	1736	3468	0
Flt Permitted				0.750			0.366			0.264		
Satd. Flow (perm)	0	1685	0	1425	1672	0	695	3471	0	482	3468	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			70			16				1
Link Speed (mph)		35			35			40				40
Link Distance (ft)		1395			1118			144				1067
Travel Time (s)		27.2			21.8			2.5				18.2
Peak Hour Factor	0.50	0.50	0.50	0.86	0.86	0.86	0.96	0.96	0.96	0.89	0.89	0.89
Heavy Vehicles (%)	0%	0%	0%	0%	7%	4%	0%	3%	6%	4%	4%	0%
Adj. Flow (vph)	0	2	10	43	106	95	63	943	53	87	743	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	12	0	43	201	0	63	996	0	87	747	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane								Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru										
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex										
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		8			4			6				2

Lanes, Volumes, Timings
 3: US 521 (Camden Hwy) & Jefferson Rd

PM Peak
 Existing 2023 PM

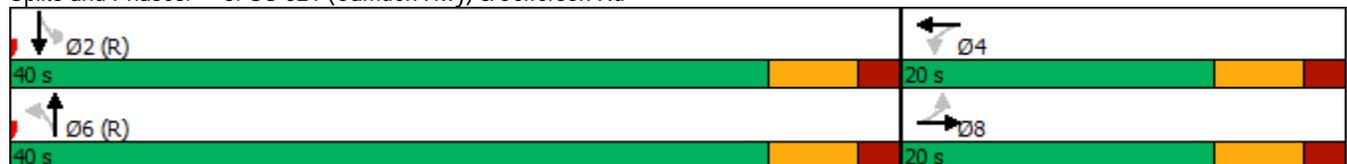


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		12.0	12.0		12.0	12.0	
Minimum Split (s)	12.0	12.0		12.0	12.0		18.0	18.0		18.0	18.0	
Total Split (s)	20.0	20.0		20.0	20.0		40.0	40.0		40.0	40.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	14.0	14.0		14.0	14.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		10.3		10.3	10.3		37.7	37.7		37.7	37.7	
Actuated g/C Ratio		0.17		0.17	0.17		0.63	0.63		0.63	0.63	
v/c Ratio		0.04		0.18	0.58		0.14	0.46		0.29	0.34	
Control Delay		11.8		21.2	21.2		6.8	7.1		9.6	6.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		11.8		21.2	21.2		6.8	7.1		9.6	6.4	
LOS		B		C	C		A	A		A	A	
Approach Delay		11.8			21.2			7.1			6.7	
Approach LOS		B			C			A			A	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 40
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 61.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 3: US 521 (Camden Hwy) & Jefferson Rd



HCM 6th Signalized Intersection Summary

3: US 521 (Camden Hwy) & Jefferson Rd

PM Peak
Existing 2023 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕↕		↕	↕↕	
Traffic Volume (veh/h)	0	1	5	37	91	82	60	905	51	77	661	4
Future Volume (veh/h)	0	1	5	37	91	82	60	905	51	77	661	4
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	1900	1900	1900	1900	1796	1841	1900	1856	1811	1841	1841	1900
Adj Flow Rate, veh/h	0	2	10	43	106	95	62	943	53	87	743	4
Peak Hour Factor	0.50	0.50	0.50	0.86	0.86	0.86	0.96	0.96	0.96	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	7	4	0	3	6	4	4	0
Cap, veh/h	0	43	215	334	136	122	519	2185	123	402	2296	12
Arrive On Green	0.00	0.16	0.16	0.16	0.16	0.16	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	0	275	1377	1424	873	782	725	3393	191	557	3567	19
Grp Volume(v), veh/h	0	0	12	43	0	201	62	490	506	87	364	383
Grp Sat Flow(s),veh/h/ln	0	0	1652	1424	0	1655	725	1763	1821	557	1749	1837
Q Serve(g_s), s	0.0	0.0	0.4	1.6	0.0	7.0	2.5	8.2	8.2	5.5	5.6	5.6
Cycle Q Clear(g_c), s	0.0	0.0	0.4	2.0	0.0	7.0	8.1	8.2	8.2	13.7	5.6	5.6
Prop In Lane	0.00		0.83	1.00		0.47	1.00		0.10	1.00		0.01
Lane Grp Cap(c), veh/h	0	0	258	334	0	259	519	1135	1172	402	1126	1183
V/C Ratio(X)	0.00	0.00	0.05	0.13	0.00	0.78	0.12	0.43	0.43	0.22	0.32	0.32
Avail Cap(c_a), veh/h	0	0	386	444	0	386	519	1135	1172	402	1126	1183
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	21.5	22.3	0.0	24.3	6.6	5.3	5.3	8.7	4.8	4.8
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.2	0.0	5.7	0.5	1.2	1.2	1.2	0.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	0.5	0.0	2.9	0.3	2.1	2.2	0.6	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	21.6	22.5	0.0	30.0	7.1	6.5	6.4	9.9	5.6	5.5
LnGrp LOS	A	A	C	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		12			244			1058			834	
Approach Delay, s/veh		21.6			28.7			6.5			6.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.6		15.4		44.6		15.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		34.0		14.0		34.0		14.0				
Max Q Clear Time (g_c+I1), s		15.7		9.0		10.2		2.4				
Green Ext Time (p_c), s		5.1		0.5		7.0		0.0				

Intersection Summary

HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

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

Lanes, Volumes, Timings
 4: US 521 (Camden Hwy) & N Pike W

PM Peak
 Existing 2023 PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	39	173	842	44	81	622
Future Volume (vph)	39	173	842	44	81	622
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	25	
Storage Lanes	1	0		0	1	
Taper Length (ft)	100				15	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt	0.890		0.993			
Flt Protected	0.991				0.950	
Satd. Flow (prot)	1653	0	3477	0	1583	3505
Flt Permitted	0.991				0.950	
Satd. Flow (perm)	1653	0	3477	0	1583	3505
Link Speed (mph)	45		40			40
Link Distance (ft)	2128		262			144
Travel Time (s)	32.2		4.5			2.5
Peak Hour Factor	0.84	0.84	0.92	0.92	0.91	0.91
Heavy Vehicles (%)	3%	1%	3%	5%	14%	3%
Adj. Flow (vph)	46	206	915	48	89	684
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	963	0	89	684
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.0%			ICU Level of Service A		
Analysis Period (min)	15					

HCM 6th TWSC
4: US 521 (Camden Hwy) & N Pike W

PM Peak
Existing 2023 PM

Intersection						
Int Delay, s/veh	7.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Traffic Vol, veh/h	39	173	842	44	81	622
Future Vol, veh/h	39	173	842	44	81	622
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	25	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	92	92	91	91
Heavy Vehicles, %	3	1	3	5	14	3
Mvmt Flow	46	206	915	48	89	684

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1459	482	0	0	963
Stage 1	939	-	-	-	-
Stage 2	520	-	-	-	-
Critical Hdwy	6.86	6.92	-	-	4.38
Critical Hdwy Stg 1	5.86	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-
Follow-up Hdwy	3.53	3.31	-	-	2.34
Pot Cap-1 Maneuver	119	533	-	-	641
Stage 1	338	-	-	-	-
Stage 2	558	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	102	533	-	-	641
Mov Cap-2 Maneuver	102	-	-	-	-
Stage 1	338	-	-	-	-
Stage 2	480	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	57.6	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	300	641
HCM Lane V/C Ratio	-	-	0.841	0.139
HCM Control Delay (s)	-	-	57.6	11.5
HCM Lane LOS	-	-	F	B
HCM 95th %tile Q(veh)	-	-	7.2	0.5

Lanes, Volumes, Timings
5: US 521 (Camden Hwy)

PM Peak
Existing 2023 PM

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (vph)	56	183	685	0	0	682
Future Volume (vph)	56	183	685	0	0	682
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	0.897					
Flt Protected	0.988					
Satd. Flow (prot)	1598	0	3574	0	0	3505
Flt Permitted	0.988					
Satd. Flow (perm)	1598	0	3574	0	0	3505
Link Speed (mph)	30		40		40	
Link Distance (ft)	1103		245		262	
Travel Time (s)	25.1		4.2		4.5	
Peak Hour Factor	0.92	0.92	0.88	0.92	0.92	0.91
Heavy Vehicles (%)	0%	7%	1%	2%	2%	3%
Adj. Flow (vph)	61	199	778	0	0	749
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	0	778	0	0	749
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free		Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	40.0%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT			TT
Traffic Vol, veh/h	56	183	685	0	0	682
Future Vol, veh/h	56	183	685	0	0	682
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	88	92	92	91
Heavy Vehicles, %	0	7	1	2	2	3
Mvmt Flow	61	199	778	0	0	749

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1153	389	0	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	375	-	-	-	-	-
Critical Hdwy	6.8	7.04	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.37	-	-	-	-
Pot Cap-1 Maneuver	194	596	-	0	0	-
Stage 1	419	-	-	0	0	-
Stage 2	671	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	194	596	-	-	-	-
Mov Cap-2 Maneuver	194	-	-	-	-	-
Stage 1	419	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBTWBLn1	SBT
Capacity (veh/h)	- 778	-
HCM Lane V/C Ratio	- 0.334	-
HCM Control Delay (s)	- 11.9	-
HCM Lane LOS	- B	-
HCM 95th %tile Q(veh)	- 1.5	-

Lanes, Volumes, Timings
6: US 521 (Camden Hwy) & S Pike W

PM Peak
Existing 2023 PM



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	41	229	471	79	317	405
Future Volume (vph)	41	229	471	79	317	405
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	150		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.978			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1599	3428	0	1703	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1599	3428	0	1703	3574
Link Speed (mph)	35		40			40
Link Distance (ft)	825		665			245
Travel Time (s)	16.1		11.3			4.2
Peak Hour Factor	0.88	0.88	0.91	0.91	0.94	0.94
Heavy Vehicles (%)	0%	1%	3%	3%	6%	1%
Adj. Flow (vph)	47	260	518	87	337	431
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	260	605	0	337	431
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	46.4%			ICU Level of Service A		
Analysis Period (min)	15					

Intersection						
Int Delay, s/veh	5.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↕↔		↖	↗
Traffic Vol, veh/h	41	229	471	79	317	405
Future Vol, veh/h	41	229	471	79	317	405
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	150	-	-	200	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	91	91	94	94
Heavy Vehicles, %	0	1	3	3	6	1
Mvmt Flow	47	260	518	87	337	431

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1452	303	0	0	605	0
Stage 1	562	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Critical Hdwy	6.8	6.92	-	-	4.22	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.31	-	-	2.26	-
Pot Cap-1 Maneuver	124	696	-	-	942	-
Stage 1	540	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	80	696	-	-	942	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	540	-	-	-	-	-
Stage 2	235	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	4.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	-	179	696	942	-
HCM Lane V/C Ratio	-	-	0.26	0.374	0.358	-
HCM Control Delay (s)	-	-	32	13.2	10.9	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	1	1.7	1.6	-

Lanes, Volumes, Timings

PM Peak

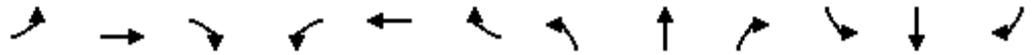
7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	712	30	63	792	436	0	0	0	323	43	88
Future Volume (vph)	101	712	30	63	792	436	0	0	0	323	43	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	0		0	0		0
Storage Lanes	1		0	1		1	0		0	1		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850						0.940
Flt Protected	0.950			0.950						0.950	0.980	
Satd. Flow (prot)	1805	3550	0	1805	3574	1599	0	0	0	1698	1656	0
Flt Permitted	0.950			0.950						0.950	0.980	
Satd. Flow (perm)	1805	3550	0	1805	3574	1599	0	0	0	1698	1656	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5				276						20
Link Speed (mph)		40			40			25				40
Link Distance (ft)		1287			283			301				665
Travel Time (s)		21.9			4.8			8.2				11.3
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	3%	0%	1%	1%	2%	2%	2%	1%	0%	0%
Adj. Flow (vph)	110	774	33	64	808	445	0	0	0	363	48	99
Shared Lane Traffic (%)										28%		
Lane Group Flow (vph)	110	807	0	64	808	445	0	0	0	261	249	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		40			12			12			40	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												Yes
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	15		40	60		60	60		60
Number of Detectors	1	2		1	2	1				1	2	
Detector Template	Left	Thru		Left	Thru	Right				Left	Thru	
Leading Detector (ft)	20	100		20	100	20				20	100	
Trailing Detector (ft)	0	0		0	0	0				0	0	
Detector 1 Position(ft)	0	0		0	0	0				0	0	
Detector 1 Size(ft)	20	6		20	6	20				20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex				Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type	Prot	NA		Prot	NA	Free				Perm	NA	
Protected Phases	5	2		1	6						4	

Lanes, Volumes, Timings

PM Peak

7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

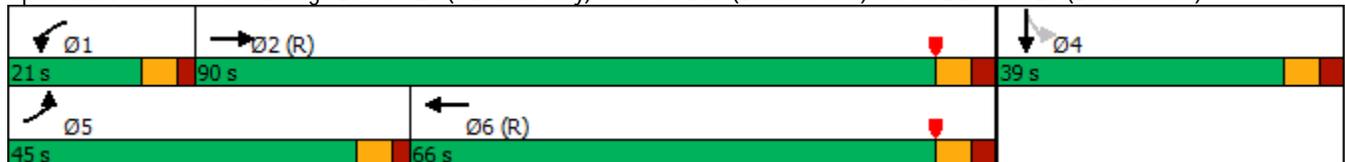


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	Free									4		
Detector Phase	5	2		1	6					4	4	
Switch Phase												
Minimum Initial (s)	8.0	15.0		8.0	15.0					15.0	15.0	
Minimum Split (s)	24.0	25.0		15.0	25.0					25.0	25.0	
Total Split (s)	45.0	90.0		21.0	66.0					39.0	39.0	
Total Split (%)	30.0%	60.0%		14.0%	44.0%					26.0%	26.0%	
Maximum Green (s)	39.0	83.1		15.0	59.1					32.1	32.1	
Yellow Time (s)	4.0	4.0		4.0	4.0					4.0	4.0	
All-Red Time (s)	2.0	2.9		2.0	2.9					2.9	2.9	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)	6.0	6.9		6.0	6.9					6.9	6.9	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	3.0	4.0		3.0	4.0					3.0	3.0	
Minimum Gap (s)	3.0	4.0		3.0	4.0					3.0	3.0	
Time Before Reduce (s)	0.0	20.0		0.0	20.0					0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0					0.0	0.0	
Recall Mode	None	C-Min		Min	C-Min					None	None	
Act Effct Green (s)	14.5	90.9		11.0	87.3	150.0				28.4	28.4	
Actuated g/C Ratio	0.10	0.61		0.07	0.58	1.00				0.19	0.19	
v/c Ratio	0.63	0.38		0.49	0.39	0.28				0.81	0.76	
Control Delay	80.4	16.8		78.6	19.1	0.4				77.2	66.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0				0.0	0.0	
Total Delay	80.4	16.8		78.6	19.1	0.4				77.2	66.9	
LOS	F	B		E	B	A				E	E	
Approach Delay		24.4			15.7						72.2	
Approach LOS		C			B						E	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 50.3 (34%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 29.1
 Intersection LOS: C
 Intersection Capacity Utilization 57.8%
 ICU Level of Service B
 Analysis Period (min) 15

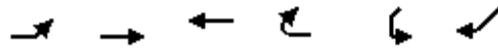
Splits and Phases: 7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)



HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

Lanes, Volumes, Timings
8: S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↶	↷			
Traffic Volume (vph)	177	212	273	37	0	0
Future Volume (vph)	177	212	273	37	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.984			
Flt Protected		0.978				
Satd. Flow (prot)	0	1768	1853	0	0	0
Flt Permitted		0.978				
Satd. Flow (perm)	0	1768	1853	0	0	0
Link Speed (mph)		35	35		30	
Link Distance (ft)		825	1032		170	
Travel Time (s)		16.1	20.1		3.9	
Peak Hour Factor	0.88	0.88	0.87	0.87	0.92	0.92
Heavy Vehicles (%)	10%	1%	1%	0%	2%	2%
Adj. Flow (vph)	201	241	314	43	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	442	357	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.2%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 9: US 76/378 (Robert E Graham Fwy) WB

PM Peak
 Existing 2023 PM



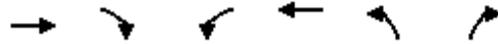
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑	↗		
Traffic Volume (vph)	0	0	380	239	0	0
Future Volume (vph)	0	0	380	239	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr t				0.850		
Flt Protected						
Satd. Flow (prot)	0	0	1845	1509	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	1845	1509	0	0
Link Speed (mph)		60	60		30	
Link Distance (ft)		859	853		1103	
Travel Time (s)		9.8	9.7		25.1	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.92	0.92
Heavy Vehicles (%)	2%	2%	3%	7%	2%	2%
Adj. Flow (vph)	0	0	422	266	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	422	266	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			40	15	9
Sign Control		Stop	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
10: Market St & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↩			↩	↩	↩
Traffic Volume (vph)	212	15	29	282	29	36
Future Volume (vph)	212	15	29	282	29	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.991			0.850		
Flt Protected				0.995	0.950	
Satd. Flow (prot)	1823	0	0	1874	1805	1568
Flt Permitted				0.995	0.950	
Satd. Flow (perm)	1823	0	0	1874	1805	1568
Link Speed (mph)	35			45	30	
Link Distance (ft)	1032			932	1040	
Travel Time (s)	20.1			14.1	23.6	
Peak Hour Factor	0.92	0.92	0.84	0.84	0.81	0.81
Heavy Vehicles (%)	3%	7%	0%	1%	0%	3%
Adj. Flow (vph)	230	16	35	336	36	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	246	0	0	371	36	44
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	L NA	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.8%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	↔
Traffic Vol, veh/h	212	15	29	282	29	36
Future Vol, veh/h	212	15	29	282	29	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	84	84	81	81
Heavy Vehicles, %	3	7	0	1	0	3
Mvmt Flow	230	16	35	336	36	44

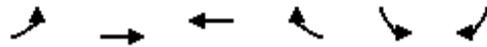
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	246	0	644 238
Stage 1	-	-	-	-	238 -
Stage 2	-	-	-	-	406 -
Critical Hdwy	-	-	4.1	-	6.4 6.23
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.327
Pot Cap-1 Maneuver	-	-	1332	-	440 798
Stage 1	-	-	-	-	806 -
Stage 2	-	-	-	-	677 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1332	-	426 798
Mov Cap-2 Maneuver	-	-	-	-	426 -
Stage 1	-	-	-	-	806 -
Stage 2	-	-	-	-	655 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	426	798	-	-	1332	-
HCM Lane V/C Ratio	0.084	0.056	-	-	0.026	-
HCM Control Delay (s)	14.2	9.8	-	-	7.8	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	0.2	-	-	0.1	-

Lanes, Volumes, Timings
11: N Pike W & Electric Dr

PM Peak
Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	13	140	176	8	23	33
Future Volume (vph)	13	140	176	8	23	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.920	
Flt Protected		0.996			0.980	
Satd. Flow (prot)	0	1885	1889	0	1548	0
Flt Permitted		0.996			0.980	
Satd. Flow (perm)	0	1885	1889	0	1548	0
Link Speed (mph)		45	45		25	
Link Distance (ft)		2128	2903		760	
Travel Time (s)		32.2	44.0		20.7	
Peak Hour Factor	0.75	0.75	0.84	0.84	0.78	0.78
Heavy Vehicles (%)	5%	0%	0%	0%	0%	18%
Adj. Flow (vph)	17	187	210	10	29	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	204	220	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.1%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	13	140	176	8	23	33
Future Vol, veh/h	13	140	176	8	23	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	75	75	84	84	78	78
Heavy Vehicles, %	5	0	0	0	0	18
Mvmt Flow	17	187	210	10	29	42

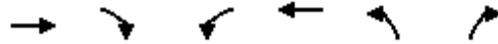
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	220	0	-	0	436 215
Stage 1	-	-	-	-	215 -
Stage 2	-	-	-	-	221 -
Critical Hdwy	4.15	-	-	-	6.4 6.38
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.245	-	-	-	3.5 3.462
Pot Cap-1 Maneuver	1332	-	-	-	581 786
Stage 1	-	-	-	-	826 -
Stage 2	-	-	-	-	821 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1332	-	-	-	573 786
Mov Cap-2 Maneuver	-	-	-	-	573 -
Stage 1	-	-	-	-	814 -
Stage 2	-	-	-	-	821 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1332	-	-	-	682
HCM Lane V/C Ratio	0.013	-	-	-	0.105
HCM Control Delay (s)	7.7	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Lanes, Volumes, Timings
12: E Wesmark Blvd & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	180	67	162	234	75	154
Future Volume (vph)	180	67	162	234	75	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963			0.850		
Flt Protected				0.980	0.950	
Satd. Flow (prot)	1778	0	0	1847	1787	1615
Flt Permitted				0.980	0.950	
Satd. Flow (perm)	1778	0	0	1847	1787	1615
Link Speed (mph)	45			45	35	
Link Distance (ft)	932			1492	867	
Travel Time (s)	14.1			22.6	16.9	
Peak Hour Factor	0.91	0.91	0.93	0.93	0.84	0.84
Heavy Vehicles (%)	4%	0%	2%	0%	1%	0%
Adj. Flow (vph)	198	74	174	252	89	183
Shared Lane Traffic (%)						
Lane Group Flow (vph)	272	0	0	426	89	183
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	L NA	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.0% ICU Level of Service A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	5.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	180	67	162	234	75	154
Future Vol, veh/h	180	67	162	234	75	154
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	93	93	84	84
Heavy Vehicles, %	4	0	2	0	1	0
Mvmt Flow	198	74	174	252	89	183

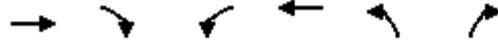
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	272	0	835
Stage 1	-	-	-	-	235
Stage 2	-	-	-	-	600
Critical Hdwy	-	-	4.12	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	-	-	2.218	-	3.509
Pot Cap-1 Maneuver	-	-	1291	-	339
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	550
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1291	-	286
Mov Cap-2 Maneuver	-	-	-	-	286
Stage 1	-	-	-	-	806
Stage 2	-	-	-	-	464

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	286	809	-	-	1291	-
HCM Lane V/C Ratio	0.312	0.227	-	-	0.135	-
HCM Control Delay (s)	23.2	10.7	-	-	8.2	0
HCM Lane LOS	C	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	0.9	-	-	0.5	-

Lanes, Volumes, Timings
13: Bultman Dr & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	281	58	88	326	55	86
Future Volume (vph)	281	58	88	326	55	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977			0.918		
Flt Protected				0.989	0.981	
Satd. Flow (prot)	1805	0	0	1857	1685	0
Flt Permitted				0.989	0.981	
Satd. Flow (perm)	1805	0	0	1857	1685	0
Link Speed (mph)	45			30	35	
Link Distance (ft)	1492			1290	1099	
Travel Time (s)	22.6			29.3	21.4	
Peak Hour Factor	0.92	0.92	0.90	0.90	0.88	0.88
Heavy Vehicles (%)	3%	2%	2%	1%	4%	0%
Adj. Flow (vph)	305	63	98	362	63	98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	368	0	0	460	161	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.7%
ICU Level of Service	B
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	3.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	281	58	88	326	55	86
Future Vol, veh/h	281	58	88	326	55	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	90	90	88	88
Heavy Vehicles, %	3	2	2	1	4	0
Mvmt Flow	305	63	98	362	63	98

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	368	0	895
Stage 1	-	-	-	-	337
Stage 2	-	-	-	-	558
Critical Hdwy	-	-	4.12	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.218	-	3.536
Pot Cap-1 Maneuver	-	-	1191	-	309
Stage 1	-	-	-	-	719
Stage 2	-	-	-	-	569
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1191	-	277
Mov Cap-2 Maneuver	-	-	-	-	277
Stage 1	-	-	-	-	719
Stage 2	-	-	-	-	510

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	-	-	1191	-
HCM Lane V/C Ratio	0.363	-	-	0.082	-
HCM Control Delay (s)	17.7	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0.3	-

Lanes, Volumes, Timings
 14: N Pike W & Farmers Telephone Rd

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔		↘	↙
Traffic Volume (vph)	29	155	159	6	23	10
Future Volume (vph)	29	155	159	6	23	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.959	
Flt Protected		0.992			0.966	
Satd. Flow (prot)	0	1809	1888	0	1760	0
Flt Permitted		0.992			0.966	
Satd. Flow (perm)	0	1809	1888	0	1760	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		2903	2450		704	
Travel Time (s)		44.0	37.1		16.0	
Peak Hour Factor	0.66	0.66	0.84	0.84	0.43	0.43
Heavy Vehicles (%)	0%	5%	0%	3%	0%	0%
Adj. Flow (vph)	44	235	189	7	53	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	279	196	0	76	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.8%
Analysis Period (min)	15
	ICU Level of Service A

HCM 6th TWSC
14: N Pike W & Farmers Telephone Rd

PM Peak
Existing 2023 PM

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	29	155	159	6	23	10
Future Vol, veh/h	29	155	159	6	23	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	66	66	84	84	43	43
Heavy Vehicles, %	0	5	0	3	0	0
Mvmt Flow	44	235	189	7	53	23

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	196	0	-	0	516 193
Stage 1	-	-	-	-	193 -
Stage 2	-	-	-	-	323 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1389	-	-	-	523 854
Stage 1	-	-	-	-	845 -
Stage 2	-	-	-	-	738 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1389	-	-	-	504 854
Mov Cap-2 Maneuver	-	-	-	-	504 -
Stage 1	-	-	-	-	815 -
Stage 2	-	-	-	-	738 -

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1389	-	-	-	575
HCM Lane V/C Ratio	0.032	-	-	-	0.133
HCM Control Delay (s)	7.7	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Lanes, Volumes, Timings
15: Hilliard Dr & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	363	6	44	404	13	65
Future Volume (vph)	363	6	44	404	13	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998			0.887		
Flt Protected				0.995	0.992	
Satd. Flow (prot)	1860	0	0	1870	1631	0
Flt Permitted				0.995	0.992	
Satd. Flow (perm)	1860	0	0	1870	1631	0
Link Speed (mph)	30			45	25	
Link Distance (ft)	716			1499	658	
Travel Time (s)	16.3			22.7	17.9	
Peak Hour Factor	0.92	0.92	0.84	0.84	0.85	0.85
Heavy Vehicles (%)	2%	0%	2%	1%	0%	3%
Adj. Flow (vph)	395	7	52	481	15	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	402	0	0	533	91	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	57.9%
ICU Level of Service	B
Analysis Period (min)	15

Intersection

Int Delay, s/veh 1.6

Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	363	6	44	404	13	65
Future Vol, veh/h	363	6	44	404	13	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	84	84	85	85
Heavy Vehicles, %	2	0	2	1	0	3
Mvmt Flow	395	7	52	481	15	76

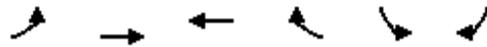
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	402	0	984 399
Stage 1	-	-	-	-	399 -
Stage 2	-	-	-	-	585 -
Critical Hdwy	-	-	4.12	-	6.4 6.23
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.218	-	3.5 3.327
Pot Cap-1 Maneuver	-	-	1157	-	278 649
Stage 1	-	-	-	-	682 -
Stage 2	-	-	-	-	561 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1157	-	261 649
Mov Cap-2 Maneuver	-	-	-	-	261 -
Stage 1	-	-	-	-	682 -
Stage 2	-	-	-	-	527 -

Approach	EB	WB	NE
HCM Control Delay, s	0	0.8	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	520	-	-	1157	-
HCM Lane V/C Ratio	0.176	-	-	0.045	-
HCM Control Delay (s)	13.4	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Lanes, Volumes, Timings
 16: N Pike W & Clara Louise Kellogg Drive

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	14	173	154	40	30	6
Future Volume (vph)	14	173	154	40	30	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.972		0.978	
Flt Protected		0.996			0.960	
Satd. Flow (prot)	0	1825	1793	0	1784	0
Flt Permitted		0.996			0.960	
Satd. Flow (perm)	0	1825	1793	0	1784	0
Link Speed (mph)		45	45		30	
Link Distance (ft)		2450	4008		403	
Travel Time (s)		37.1	60.7		9.2	
Peak Hour Factor	0.65	0.65	0.88	0.88	0.84	0.84
Heavy Vehicles (%)	0%	4%	3%	3%	0%	0%
Adj. Flow (vph)	22	266	175	45	36	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	288	220	0	43	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.7%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	14	173	154	40	30	6
Future Vol, veh/h	14	173	154	40	30	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	65	65	88	88	84	84
Heavy Vehicles, %	0	4	3	3	0	0
Mvmt Flow	22	266	175	45	36	7

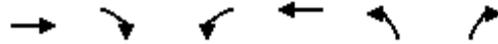
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	220	0	-	0	508 198
Stage 1	-	-	-	-	198 -
Stage 2	-	-	-	-	310 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1361	-	-	-	528 848
Stage 1	-	-	-	-	840 -
Stage 2	-	-	-	-	748 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1361	-	-	-	518 848
Mov Cap-2 Maneuver	-	-	-	-	518 -
Stage 1	-	-	-	-	824 -
Stage 2	-	-	-	-	748 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	554
HCM Lane V/C Ratio	0.016	-	-	-	0.077
HCM Control Delay (s)	7.7	0	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Lanes, Volumes, Timings
17: Wall St & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	422	21	11	375	39	26
Future Volume (vph)	422	21	11	375	39	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.994			0.946		
Flt Protected				0.999	0.971	
Satd. Flow (prot)	1828	0	0	1875	1714	0
Flt Permitted				0.999	0.971	
Satd. Flow (perm)	1828	0	0	1875	1714	0
Link Speed (mph)	45			45	30	
Link Distance (ft)	1499			1239	1096	
Travel Time (s)	22.7			18.8	24.9	
Peak Hour Factor	0.92	0.92	0.80	0.80	0.77	0.77
Heavy Vehicles (%)	3%	10%	9%	1%	3%	0%
Adj. Flow (vph)	459	23	14	469	51	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	482	0	0	483	85	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9		15	15		9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.0%
Analysis Period (min)	15
	ICU Level of Service A

Intersection

Int Delay, s/veh 1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	422	21	11	375	39	26
Future Vol, veh/h	422	21	11	375	39	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	80	80	77	77
Heavy Vehicles, %	3	10	9	1	3	0
Mvmt Flow	459	23	14	469	51	34

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	482	0	968
Stage 1	-	-	-	-	471
Stage 2	-	-	-	-	497
Critical Hdwy	-	-	4.19	-	6.43
Critical Hdwy Stg 1	-	-	-	-	5.43
Critical Hdwy Stg 2	-	-	-	-	5.43
Follow-up Hdwy	-	-	2.281	-	3.527
Pot Cap-1 Maneuver	-	-	1045	-	280
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	609
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1045	-	275
Mov Cap-2 Maneuver	-	-	-	-	275
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	598

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	351	-	-	1045	-
HCM Lane V/C Ratio	0.241	-	-	0.013	-
HCM Control Delay (s)	18.5	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Lanes, Volumes, Timings
18: Miller Rd/S Pike W

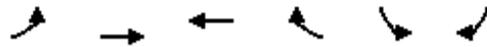
PM Peak
Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	49	270	260	340	383	77
Future Volume (vph)	49	270	260	340	383	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	0	0
Storage Lanes	1			0	1	0
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.923		0.977	
Flt Protected	0.950				0.960	
Satd. Flow (prot)	1736	1863	1739	0	1739	0
Flt Permitted	0.155				0.960	
Satd. Flow (perm)	283	1863	1739	0	1739	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			131		13	
Link Speed (mph)		30	30		45	
Link Distance (ft)		449	761		1239	
Travel Time (s)		10.2	17.3		18.8	
Peak Hour Factor	0.91	0.91	0.83	0.83	0.88	0.88
Heavy Vehicles (%)	4%	2%	2%	0%	3%	0%
Adj. Flow (vph)	54	297	313	410	435	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	297	723	0	523	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2		1	
Detector Template	Left	Thru	Thru			
Leading Detector (ft)	20	100	100		20	
Trailing Detector (ft)	0	0	0		0	
Detector 1 Position(ft)	0	0	0		0	
Detector 1 Size(ft)	20	6	6		20	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	
Detector 1 Delay (s)	0.0	0.0	0.0		8.0	
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	

Lanes, Volumes, Timings
18: Miller Rd/S Pike W

PM Peak
Existing 2023 PM

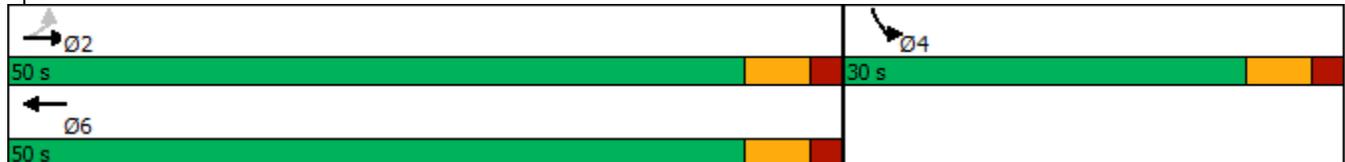


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	2					
Detector Phase	2	2	6		4	
Switch Phase						
Minimum Initial (s)	20.0	20.0	20.0		6.0	
Minimum Split (s)	26.0	26.0	26.0		12.0	
Total Split (s)	50.0	50.0	50.0		30.0	
Total Split (%)	62.5%	62.5%	62.5%		37.5%	
Maximum Green (s)	44.0	44.0	44.0		24.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	
Recall Mode	Min	Min	Min		None	
Walk Time (s)	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0		0	
Act Effct Green (s)	30.3	30.3	30.3		24.1	
Actuated g/C Ratio	0.45	0.45	0.45		0.36	
v/c Ratio	0.42	0.35	0.84		0.82	
Control Delay	22.7	12.4	22.3		34.8	
Queue Delay	0.0	0.0	0.0		0.0	
Total Delay	22.7	12.4	22.3		34.8	
LOS	C	B	C		C	
Approach Delay		14.0	22.3		34.8	
Approach LOS		B	C		C	

Intersection Summary

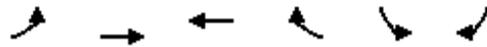
Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 66.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 24.6
 Intersection LOS: C
 Intersection Capacity Utilization 76.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 18: Miller Rd/S Pike W



HCM 6th Signalized Intersection Summary
18: Miller Rd/S Pike W

PM Peak
Existing 2023 PM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	270	260	340	383	77
Future Volume (veh/h)	49	270	260	340	383	77
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	1841	1870	1870	1900	1856	1900
Adj Flow Rate, veh/h	54	297	313	0	435	0
Peak Hour Factor	0.91	0.91	0.83	0.83	0.88	0.88
Percent Heavy Veh, %	4	2	2	0	3	0
Cap, veh/h	502	822	822		523	
Arrive On Green	0.44	0.44	0.44	0.00	0.30	0.00
Sat Flow, veh/h	1050	1870	1870	0	1763	0
Grp Volume(v), veh/h	54	297	313	0	436	0
Grp Sat Flow(s),veh/h/ln	1050	1870	1870	0	1767	0
Q Serve(g_s), s	1.7	4.8	5.1	0.0	10.5	0.0
Cycle Q Clear(g_c), s	6.8	4.8	5.1	0.0	10.5	0.0
Prop In Lane	1.00			0.00	1.00	0.00
Lane Grp Cap(c), veh/h	502	822	822		524	
V/C Ratio(X)	0.11	0.36	0.38		0.83	
Avail Cap(c_a), veh/h	1055	1809	1809		933	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.9	8.5	8.6	0.0	14.9	0.0
Incr Delay (d2), s/veh	0.1	0.3	0.3	0.0	3.5	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	0.3	1.5	1.6	0.0	3.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.0	8.8	8.9	0.0	18.5	0.0
LnGrp LOS	B	A	A		B	
Approach Vol, veh/h		351	313		436	
Approach Delay, s/veh		9.1	8.9		18.5	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		26.0		19.5		26.0
Change Period (Y+Rc), s		6.0		6.0		6.0
Max Green Setting (Gmax), s		44.0		24.0		44.0
Max Q Clear Time (g_c+I1), s		8.8		12.5		7.1
Green Ext Time (p_c), s		2.2		1.1		2.0

Intersection Summary

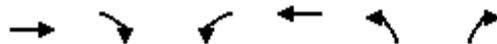
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

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

Lanes, Volumes, Timings
19: Carolina Ave & S Pike W

PM Peak
Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	604	47	28	550	50	23
Future Volume (vph)	604	47	28	550	50	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)			100		100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.990				0.957	
Flt Protected			0.950		0.967	
Satd. Flow (prot)	1847	0	1736	1863	1758	0
Flt Permitted			0.950		0.967	
Satd. Flow (perm)	1847	0	1736	1863	1758	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	761			1754	440	
Travel Time (s)	17.3			39.9	10.0	
Peak Hour Factor	0.90	0.90	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	2%	0%	4%	2%	0%	0%
Adj. Flow (vph)	671	52	34	663	60	28
Shared Lane Traffic (%)						
Lane Group Flow (vph)	723	0	34	663	88	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.5%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↶		↷	↶	↷	
Traffic Vol, veh/h	604	47	28	550	50	23
Future Vol, veh/h	604	47	28	550	50	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	83	83	83	83
Heavy Vehicles, %	2	0	4	2	0	0
Mvmt Flow	671	52	34	663	60	28

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	723	0	1428
Stage 1	-	-	-	-	697
Stage 2	-	-	-	-	731
Critical Hdwy	-	-	4.14	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.236	-	3.5
Pot Cap-1 Maneuver	-	-	870	-	150
Stage 1	-	-	-	-	498
Stage 2	-	-	-	-	480
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	870	-	144
Mov Cap-2 Maneuver	-	-	-	-	144
Stage 1	-	-	-	-	498
Stage 2	-	-	-	-	461

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	41.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	183	-	-	870	-
HCM Lane V/C Ratio	0.481	-	-	0.039	-
HCM Control Delay (s)	41.6	-	-	9.3	-
HCM Lane LOS	E	-	-	A	-
HCM 95th %tile Q(veh)	2.3	-	-	0.1	-

Lanes, Volumes, Timings
20: Bordeaux Ave & N Pike W

PM Peak
Existing 2023 PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	211	3	207	219	1	8	0	74	1	0	0
Future Volume (vph)	0	211	3	207	219	1	8	0	74	1	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frts		0.998						0.878				
Flt Protected					0.976			0.995			0.950	
Satd. Flow (prot)	0	1824	0	0	1792	0	0	1602	0	0	1805	0
Flt Permitted					0.976			0.995			0.950	
Satd. Flow (perm)	0	1824	0	0	1792	0	0	1602	0	0	1805	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4008			896			149			335	
Travel Time (s)		91.1			20.4			3.4			7.6	
Peak Hour Factor	0.73	0.73	0.73	0.82	0.82	0.82	0.71	0.71	0.71	0.25	0.25	0.25
Heavy Vehicles (%)	0%	4%	0%	3%	4%	0%	0%	0%	4%	0%	0%	0%
Adj. Flow (vph)	0	289	4	252	267	1	11	0	104	4	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	293	0	0	520	0	0	115	0	0	4	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		9	15		60	15		9	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	49.1%
Analysis Period (min)	15
	ICU Level of Service A

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	211	3	207	219	1	8	0	74	1	0	0
Future Vol, veh/h	0	211	3	207	219	1	8	0	74	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	82	82	82	71	71	71	25	25	25
Heavy Vehicles, %	0	4	0	3	4	0	0	0	4	0	0	0
Mvmt Flow	0	289	4	252	267	1	11	0	104	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	268	0	0	293	0	0	1063	1063	291	1115	1065	268
Stage 1	-	-	-	-	-	-	291	291	-	772	772	-
Stage 2	-	-	-	-	-	-	772	772	-	343	293	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.1	6.5	6.24	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	-	-	2.227	-	-	3.5	4	3.336	3.5	4	3.3
Pot Cap-1 Maneuver	1307	-	-	1263	-	-	203	225	743	187	224	776
Stage 1	-	-	-	-	-	-	721	675	-	395	412	-
Stage 2	-	-	-	-	-	-	395	412	-	676	674	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1307	-	-	1263	-	-	166	172	743	132	171	776
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	172	-	132	171	-
Stage 1	-	-	-	-	-	-	721	675	-	395	315	-
Stage 2	-	-	-	-	-	-	302	315	-	581	674	-

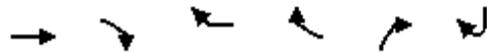
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			4.2			13.2			33.1		
HCM LOS							B			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	555	1307	-	-	1263	-	-	132
HCM Lane V/C Ratio	0.208	-	-	-	0.2	-	-	0.03
HCM Control Delay (s)	13.2	0	-	-	8.6	0	-	33.1
HCM Lane LOS	B	A	-	-	A	A	-	D
HCM 95th %tile Q(veh)	0.8	0	-	-	0.7	-	-	0.1

Lanes, Volumes, Timings

PM Peak

21: Bordeaux Ave & US 76/378 (Robert E Graham Fwy) EB/US 76/378 (Robert E Graham Fwy)



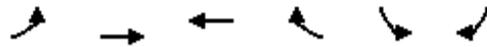
Lane Group	EBT	EBR	WBR	WBR2	NBR	SBR2
Lane Configurations	↑↑	↑	↑↑	↑	↑	↑
Traffic Volume (vph)	490	106	619	82	201	210
Future Volume (vph)	490	106	619	82	201	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		275	300		0	
Storage Lanes		1	1		1	
Taper Length (ft)						
Lane Util. Factor	0.95	1.00	0.88	1.00	1.00	1.00
Frt		0.850	0.850	0.850	0.865	0.865
Flt Protected						
Satd. Flow (prot)	3610	1538	2842	1615	1550	1644
Flt Permitted						
Satd. Flow (perm)	3610	1538	2842	1615	1550	1644
Link Speed (mph)	60					
Link Distance (ft)	2871					
Travel Time (s)	32.6					
Peak Hour Factor	0.92	0.92	0.90	0.90	0.71	0.90
Heavy Vehicles (%)	0%	5%	0%	0%	6%	0%
Adj. Flow (vph)	533	115	688	91	283	233
Shared Lane Traffic (%)						
Lane Group Flow (vph)	533	115	688	91	283	233
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Right	Right	Right
Median Width(ft)	0					
Link Offset(ft)	0					
Crosswalk Width(ft)	16					
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	60	25	25	25
Sign Control	Free					

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.3%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
22: S Pike W & Bordeaux Ave

PM Peak
Existing 2023 PM



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	172	452	578	32	93	11
Future Volume (vph)	172	452	578	32	93	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150			0	0	100
Storage Lanes	1			0	1	1
Taper Length (ft)	100				100	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993			0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1703	1881	1849	0	1719	1615
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1703	1881	1849	0	1719	1615
Link Speed (mph)		30	30		30	
Link Distance (ft)		1754	1073		396	
Travel Time (s)		39.9	24.4		9.0	
Peak Hour Factor	0.91	0.91	0.78	0.78	0.87	0.87
Heavy Vehicles (%)	6%	1%	2%	3%	5%	0%
Adj. Flow (vph)	189	497	741	41	107	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	497	782	0	107	13
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	57.0%
Analysis Period (min)	15
	ICU Level of Service B

Intersection						
Int Delay, s/veh	20.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	↗
Traffic Vol, veh/h	172	452	578	32	93	11
Future Vol, veh/h	172	452	578	32	93	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	78	78	87	87
Heavy Vehicles, %	6	1	2	3	5	0
Mvmt Flow	189	497	741	41	107	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	782	0	-	0	1637
Stage 1	-	-	-	-	762
Stage 2	-	-	-	-	875
Critical Hdwy	4.16	-	-	-	6.45
Critical Hdwy Stg 1	-	-	-	-	5.45
Critical Hdwy Stg 2	-	-	-	-	5.45
Follow-up Hdwy	2.254	-	-	-	3.545
Pot Cap-1 Maneuver	818	-	-	-	109
Stage 1	-	-	-	-	456
Stage 2	-	-	-	-	403
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	818	-	-	-	~ 84
Mov Cap-2 Maneuver	-	-	-	-	~ 84
Stage 1	-	-	-	-	351
Stage 2	-	-	-	-	403

Approach	EB	WB	SB
HCM Control Delay, s	3	0	249.6
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	818	-	-	-	84	408
HCM Lane V/C Ratio	0.231	-	-	-	1.273	0.031
HCM Control Delay (s)	10.7	-	-	-	277.4	14.1
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	0.9	-	-	-	7.9	0.1

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

Lanes, Volumes, Timings
 23: US 15 (N Main St) & N Pike W/Strange St

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕	↕	↖	↕	↖
Traffic Volume (vph)	30	28	232	20	25	9	367	315	19	8	313	33
Future Volume (vph)	30	28	232	20	25	9	367	315	19	8	313	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	100		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	100			100			20			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.977			0.991			0.986	
Flt Protected		0.975			0.982		0.950			0.950		
Satd. Flow (prot)	0	1701	1568	0	1727	0	1752	3386	0	1597	3396	0
Flt Permitted		0.805			0.847		0.439			0.515		
Satd. Flow (perm)	0	1404	1568	0	1490	0	810	3386	0	866	3396	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			290		8			7			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		896			1043			293			718	
Travel Time (s)		20.4			23.7			8.0			19.6	
Peak Hour Factor	0.80	0.80	0.80	0.61	0.61	0.61	0.83	0.83	0.83	0.89	0.89	0.89
Heavy Vehicles (%)	7%	11%	3%	5%	8%	0%	3%	6%	0%	13%	5%	3%
Adj. Flow (vph)	38	35	290	33	41	15	442	380	23	9	352	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	290	0	89	0	442	403	0	9	389	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8!			8!		5	2!			6	

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	4

Lanes, Volumes, Timings
 23: US 15 (N Main St) & N Pike W/Strange St

PM Peak
 Existing 2023 PM

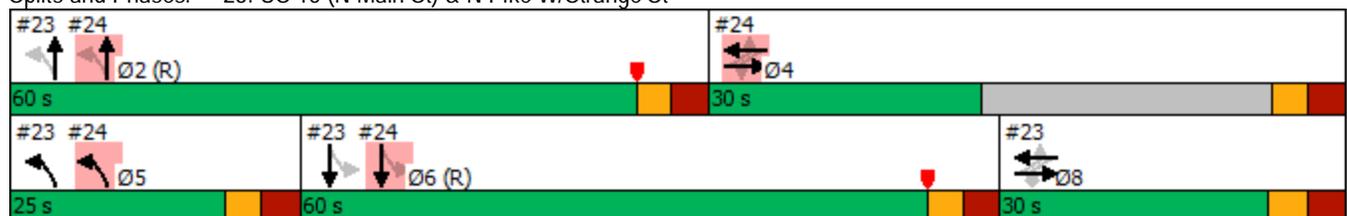


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	8!		8	8!			2!			6		
Detector Phase	8	8	8	8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0		6.0	12.0		12.0	12.0	
Minimum Split (s)	36.8	36.8	36.8	36.8	36.8		19.5	33.1		31.1	31.1	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		25.0	60.0		60.0	60.0	
Total Split (%)	26.1%	26.1%	26.1%	26.1%	26.1%		21.7%	52.2%		52.2%	52.2%	
Maximum Green (s)	23.2	23.2	23.2	23.2	23.2		18.5	53.9		53.9	53.9	
Yellow Time (s)	3.3	3.3	3.3	3.3	3.3		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.1		3.1	3.1	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Lead/Lag							Lead	Lead			Lag	Lag
Lead-Lag Optimize?							Yes	Yes			Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	2.5		2.5	2.5	
Recall Mode	None	None	None	None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	23.0	23.0	23.0	23.0	23.0			20.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0		0	0	
Act Effct Green (s)		12.0	12.0		12.0		69.6	70.0		60.2	60.2	
Actuated g/C Ratio		0.10	0.10		0.10		0.61	0.61		0.52	0.52	
v/c Ratio		0.50	0.69		0.55		0.65	0.20		0.02	0.22	
Control Delay		58.9	14.1		55.9		8.8	4.1		18.9	16.6	
Queue Delay		0.0	0.0		0.0		0.2	0.2		0.0	0.0	
Total Delay		58.9	14.1		55.9		9.1	4.3		18.9	16.6	
LOS		E	B		E		A	A		B	B	
Approach Delay		23.1			55.9			6.8			16.6	
Approach LOS		C			E			A			B	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 53.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 15.2
 Intersection LOS: B
 Intersection Capacity Utilization 55.8%
 ICU Level of Service B
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 23: US 15 (N Main St) & N Pike W/Strange St



Lane Group	Ø4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	43.5
Total Split (s)	30.0
Total Split (%)	26%
Maximum Green (s)	23.5
Yellow Time (s)	3.0
All-Red Time (s)	3.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	30.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

HCM 6th Edition methodology does not support clustered intersections.

HCM Signalized Intersection Capacity Analysis

23: US 15 (N Main St) & N Pike W/Strange St

PM Peak
Existing 2023 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↕		↖	↕	↗
Traffic Volume (vph)	30	28	232	20	25	9	367	315	19	8	313	33
Future Volume (vph)	30	28	232	20	25	9	367	315	19	8	313	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.98		1.00	0.99		1.00	0.99	
Flt Protected		0.97	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1700	1568		1727		1752	3387		1597	3395	
Flt Permitted		0.80	1.00		0.85		0.44	1.00		0.51	1.00	
Satd. Flow (perm)		1404	1568		1490		809	3387		866	3395	
Peak-hour factor, PHF	0.80	0.80	0.80	0.61	0.61	0.61	0.83	0.83	0.83	0.89	0.89	0.89
Adj. Flow (vph)	38	35	290	33	41	15	442	380	23	9	352	37
RTOR Reduction (vph)	0	0	260	0	7	0	0	3	0	0	6	0
Lane Group Flow (vph)	0	73	30	0	82	0	442	400	0	9	383	0
Heavy Vehicles (%)	7%	11%	3%	5%	8%	0%	3%	6%	0%	13%	5%	3%
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		8!			8!		5	2!			6	
Permitted Phases	8!		8	8!			2!			6		
Actuated Green, G (s)		12.0	12.0		12.0		70.0	70.0		60.2	60.2	
Effective Green, g (s)		12.0	12.0		12.0		70.0	70.0		60.2	60.2	
Actuated g/C Ratio		0.10	0.10		0.10		0.61	0.61		0.52	0.52	
Clearance Time (s)		6.8	6.8		6.8		6.5	6.1		6.1	6.1	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	2.5		2.5	2.5	
Lane Grp Cap (vph)		146	163		155		684	2061		453	1777	
v/s Ratio Prot							c0.13	0.12			c0.11	
v/s Ratio Perm		0.05	0.02		c0.05		c0.26			0.01		
v/c Ratio		0.50	0.19		0.53		0.65	0.19		0.02	0.22	
Uniform Delay, d1		48.7	47.0		48.8		12.2	10.0		13.2	14.7	
Progression Factor		1.00	1.00		1.00		0.33	0.37		1.00	1.00	
Incremental Delay, d2		2.7	0.6		3.2		2.0	0.2		0.1	0.3	
Delay (s)		51.3	47.6		52.0		6.1	3.9		13.3	15.0	
Level of Service		D	D		D		A	A		B	B	
Approach Delay (s)		48.3			52.0			5.1			15.0	
Approach LOS		D			D			A			B	

Intersection Summary

HCM 2000 Control Delay	19.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	55.8%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lanes, Volumes, Timings
 24: US 15 (N Main St) & S Pike W/S Pike E

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↕	
Traffic Volume (vph)	0	3	1	111	5	68	2	633	71	40	526	0
Future Volume (vph)	0	3	1	111	5	68	2	633	71	40	526	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		0	175		0	125		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	100			100			100			20		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.962			0.861			0.985				
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1900	1828	0	1805	1634	0	1805	3393	0	1805	3471	0
Flt Permitted				0.752			0.298			0.333		
Satd. Flow (perm)	1900	1828	0	1429	1634	0	566	3393	0	633	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			78			14				
Link Speed (mph)		30			30			25				25
Link Distance (ft)		800			766			650				293
Travel Time (s)		18.2			17.4			17.7				8.0
Peak Hour Factor	0.50	0.50	0.50	0.87	0.87	0.87	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	5%	3%	0%	4%	0%
Adj. Flow (vph)	0	6	2	128	6	78	2	763	86	48	634	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	0	128	84	0	2	849	0	48	634	0
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru										
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex										
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4!			4!		5!	2			6!	

Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	8

Lanes, Volumes, Timings
 24: US 15 (N Main St) & S Pike W/S Pike E

PM Peak
 Existing 2023 PM

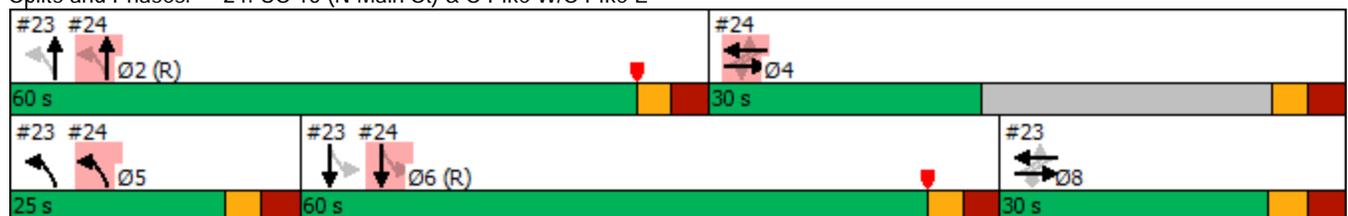


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!			4!			2			6!		
Detector Phase	4	4		4	4		5	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		6.0	12.0		12.0	12.0	
Minimum Split (s)	43.5	43.5		43.5	43.5		19.5	33.1		31.1	31.1	
Total Split (s)	30.0	30.0		30.0	30.0		25.0	60.0		60.0	60.0	
Total Split (%)	26.1%	26.1%		26.1%	26.1%		21.7%	52.2%		52.2%	52.2%	
Maximum Green (s)	23.5	23.5		23.5	23.5		18.5	53.9		53.9	53.9	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.5	3.5		3.5	3.5		3.5	3.1		3.1	3.1	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.5	6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Lead/Lag	Lag	Lag		Lag	Lag		Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes										
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	2.5		2.5	2.5	
Recall Mode	None	None		None	None		None	C-Min		C-Min	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	30.0	30.0		30.0	30.0			20.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effect Green (s)		32.4		32.4	32.4		69.6	70.0		60.2	60.2	
Actuated g/C Ratio		0.28		0.28	0.28		0.61	0.61		0.52	0.52	
v/c Ratio		0.02		0.32	0.16		0.00	0.41		0.15	0.35	
Control Delay		23.8		33.8	7.8		11.0	12.9		15.4	13.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.3	
Total Delay		23.8		33.8	7.8		11.0	12.9		15.4	13.9	
LOS		C		C	A		B	B		B	B	
Approach Delay		23.8			23.5			12.9			14.0	
Approach LOS		C			C			B			B	

Intersection Summary

Area Type: Other
 Cycle Length: 115
 Actuated Cycle Length: 115
 Offset: 53.9 (47%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 14.6
 Intersection LOS: B
 Intersection Capacity Utilization 56.6%
 ICU Level of Service B
 Analysis Period (min) 15
 ! Phase conflict between lane groups.

Splits and Phases: 24: US 15 (N Main St) & S Pike W/S Pike E



Lane Group	Ø8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	6.0
Minimum Split (s)	36.8
Total Split (s)	30.0
Total Split (%)	26%
Maximum Green (s)	23.2
Yellow Time (s)	3.3
All-Red Time (s)	3.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	23.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

HCM 6th Edition methodology does not support clustered intersections.

HCM Signalized Intersection Capacity Analysis
 24: US 15 (N Main St) & S Pike W/S Pike E

PM Peak
 Existing 2023 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (vph)	0	3	1	111	5	68	2	633	71	40	526	0
Future Volume (vph)	0	3	1	111	5	68	2	633	71	40	526	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt		0.96		1.00	0.86		1.00	0.98		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1829		1805	1633		1805	3392		1805	3471	
Flt Permitted		1.00		0.75	1.00		0.30	1.00		0.33	1.00	
Satd. Flow (perm)		1829		1430	1633		566	3392		632	3471	
Peak-hour factor, PHF	0.50	0.50	0.50	0.87	0.87	0.87	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	6	2	128	6	78	2	763	86	48	634	0
RTOR Reduction (vph)	0	1	0	0	56	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	7	0	128	28	0	2	844	0	48	634	0
Heavy Vehicles (%)	0%	0%	0%	0%	2%	0%	0%	5%	3%	0%	4%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4!		4!	4!		5!	2		6!	6!	
Permitted Phases	4!			4!			2			6!		
Actuated Green, G (s)		32.4		32.4	32.4		70.0	70.0		60.2	60.2	
Effective Green, g (s)		32.4		32.4	32.4		70.0	70.0		60.2	60.2	
Actuated g/C Ratio		0.28		0.28	0.28		0.61	0.61		0.52	0.52	
Clearance Time (s)		6.5		6.5	6.5		6.5	6.1		6.1	6.1	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	2.5		2.5	2.5	
Lane Grp Cap (vph)		515		402	460		596	2064		330	1816	
v/s Ratio Prot		0.00			0.02		0.00	c0.25			c0.18	
v/s Ratio Perm				c0.09			0.00			0.08		
v/c Ratio		0.01		0.32	0.06		0.00	0.41		0.15	0.35	
Uniform Delay, d1		29.8		32.6	30.2		9.5	11.7		14.1	16.0	
Progression Factor		1.00		1.00	1.00		1.00	1.00		0.76	0.72	
Incremental Delay, d2		0.0		0.5	0.1		0.0	0.6		0.9	0.5	
Delay (s)		29.8		33.0	30.2		9.5	12.3		11.6	12.1	
Level of Service		C		C	C		A	B		B	B	
Approach Delay (s)		29.8			31.9			12.3			12.0	
Approach LOS		C			C			B			B	

Intersection Summary

HCM 2000 Control Delay	14.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	19.4
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Lanes, Volumes, Timings

PM Peak

25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

Existing 2023 PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	294	97	22	241	332	123	237	6	225	186	243
Future Volume (vph)	149	294	97	22	241	332	123	237	6	225	186	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		125	125		0	250		100	250		225
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.97	1.00	1.00
Frt		0.963				0.850		0.996				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	3417	0	1805	1863	1509	1770	3561	0	3273	1881	1583
Flt Permitted	0.342			0.513			0.950			0.950		
Satd. Flow (perm)	631	3417	0	975	1863	1509	1770	3561	0	3273	1881	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33				382		3				289
Link Speed (mph)		30			25			35				25
Link Distance (ft)		1073			898			498				650
Travel Time (s)		24.4			24.5			9.7				17.7
Peak Hour Factor	0.96	0.96	0.96	0.87	0.87	0.87	0.68	0.68	0.68	0.84	0.84	0.84
Heavy Vehicles (%)	3%	2%	1%	0%	2%	7%	2%	1%	0%	7%	1%	2%
Adj. Flow (vph)	155	306	101	25	277	382	181	349	9	268	221	289
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	407	0	25	277	382	181	358	0	268	221	289
Enter Blocked Intersection	No											
Lane Alignment	Left	Left	Right									
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94				94
Detector 2 Size(ft)		6			6			6				6
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				0.0
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8	1	5	2		1	6	

Lanes, Volumes, Timings
 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

PM Peak
 Existing 2023 PM

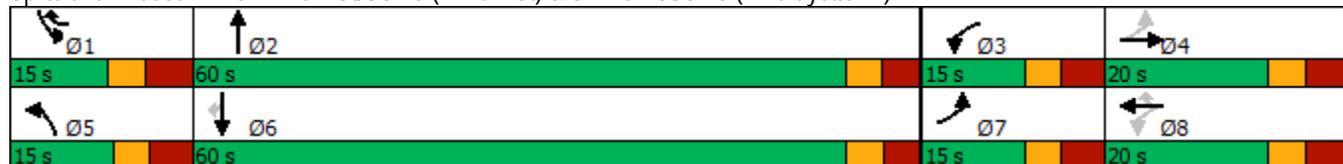


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8						6
Detector Phase	7	4		3	8	1	5	2		1	6	6
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0	6.0	6.0	12.0		6.0	12.0	12.0
Minimum Split (s)	15.0	15.0		15.0	15.0	15.0	15.0	40.0		15.0	40.0	40.0
Total Split (s)	15.0	20.0		15.0	20.0	15.0	15.0	60.0		15.0	60.0	60.0
Total Split (%)	13.6%	18.2%		13.6%	18.2%	13.6%	13.6%	54.5%		13.6%	54.5%	54.5%
Maximum Green (s)	8.5	13.5		8.5	13.5	8.1	8.5	53.7		8.1	53.8	53.8
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	3.5	3.5		3.5	3.5	3.9	3.5	3.3		3.9	3.2	3.2
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5		6.5	6.5	6.9	6.5	6.3		6.9	6.2	6.2
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	2.5		3.0	2.5	2.5
Recall Mode	None	None		None	None	None	None	Min		None	Min	Min
Walk Time (s)		7.0			7.0			7.0			7.0	7.0
Flash Dont Walk (s)		25.0			29.0			26.0			26.0	26.0
Pedestrian Calls (#/hr)		0			0			0			0	0
Act Effct Green (s)	26.7	23.4		19.8	13.5	28.1	8.5	14.4		8.1	14.5	14.5
Actuated g/C Ratio	0.38	0.33		0.28	0.19	0.40	0.12	0.20		0.11	0.20	0.20
v/c Ratio	0.42	0.35		0.07	0.78	0.46	0.85	0.49		0.71	0.57	0.52
Control Delay	18.4	20.0		15.0	45.4	4.0	67.6	27.0		43.3	31.6	7.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	18.4	20.0		15.0	45.4	4.0	67.6	27.0		43.3	31.6	7.0
LOS	B	B		B	D	A	E	C		D	C	A
Approach Delay		19.5			21.2			40.6			26.5	
Approach LOS		B			C			D			C	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 70.8
 Natural Cycle: 85
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 26.5
 Intersection LOS: C
 Intersection Capacity Utilization 59.2%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)



HCM 6th Signalized Intersection Summary
 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

PM Peak
 Existing 2023 PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕		↖	↕	↗	↖	↕		↗	↕	↗
Traffic Volume (veh/h)	149	294	97	22	241	332	123	237	6	225	186	243
Future Volume (veh/h)	149	294	97	22	241	332	123	237	6	225	186	243
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	1856	1870	1885	1900	1870	1796	1870	1885	1900	1796	1885	1870
Adj Flow Rate, veh/h	155	306	101	25	277	382	181	349	9	268	221	289
Peak Hour Factor	0.96	0.96	0.96	0.87	0.87	0.87	0.68	0.68	0.68	0.84	0.84	0.84
Percent Heavy Veh, %	3	2	1	0	2	7	2	1	0	7	1	2
Cap, veh/h	306	665	215	313	358	455	215	842	22	355	430	362
Arrive On Green	0.09	0.25	0.25	0.03	0.19	0.19	0.12	0.24	0.24	0.11	0.23	0.23
Sat Flow, veh/h	1767	2639	855	1810	1870	1522	1781	3568	92	3319	1885	1585
Grp Volume(v), veh/h	155	204	203	25	277	382	181	175	183	268	221	289
Grp Sat Flow(s),veh/h/ln	1767	1777	1717	1810	1870	1522	1781	1791	1869	1659	1885	1585
Q Serve(g_s), s	4.8	6.8	7.1	0.8	9.9	13.5	7.0	5.8	5.8	5.5	7.2	12.1
Cycle Q Clear(g_c), s	4.8	6.8	7.1	0.8	9.9	13.5	7.0	5.8	5.8	5.5	7.2	12.1
Prop In Lane	1.00		0.50	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	306	448	433	313	358	455	215	423	441	355	430	362
V/C Ratio(X)	0.51	0.46	0.47	0.08	0.77	0.84	0.84	0.41	0.42	0.75	0.51	0.80
Avail Cap(c_a), veh/h	355	448	433	471	358	455	215	1365	1424	382	1440	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	22.3	22.4	21.5	27.0	23.1	30.3	22.8	22.8	30.6	23.8	25.7
Incr Delay (d2), s/veh	1.3	0.7	0.8	0.1	10.0	13.2	24.9	0.5	0.5	7.7	0.7	3.1
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	2.8	2.8	0.3	5.3	7.3	4.3	2.4	2.5	2.5	3.2	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	23.0	23.1	21.6	37.0	36.3	55.2	23.3	23.3	38.3	24.5	28.7
LnGrp LOS	C	C	C	C	D	D	E	C	C	D	C	C
Approach Vol, veh/h		562			684			539			778	
Approach Delay, s/veh		22.7			36.1			34.0			30.8	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.4	22.9	8.8	24.3	15.0	22.4	13.1	20.0				
Change Period (Y+Rc), s	6.9	* 6.3	6.5	6.5	6.5	* 6.3	6.5	6.5				
Max Green Setting (Gmax), s	8.1	* 54	8.5	13.5	8.5	* 54	8.5	13.5				
Max Q Clear Time (g_c+I1), s	7.5	7.8	2.8	9.1	9.0	14.1	6.8	15.5				
Green Ext Time (p_c), s	0.1	1.7	0.0	1.0	0.0	2.0	0.1	0.0				

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

- User approved pedestrian interval to be less than phase max green.
- * HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lanes, Volumes, Timings
 26: Brookhollow Place Dwy & S Pike W

PM Peak
 Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	364	3	5	415	3	6
Future Volume (vph)	364	3	5	415	3	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999			0.907		
Flt Protected				0.999	0.985	
Satd. Flow (prot)	1861	0	0	1880	1697	0
Flt Permitted				0.999	0.985	
Satd. Flow (perm)	1861	0	0	1880	1697	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1290			716	767	
Travel Time (s)	29.3			16.3	17.4	
Peak Hour Factor	0.90	0.90	0.88	0.88	0.56	0.56
Heavy Vehicles (%)	2%	0%	0%	1%	0%	0%
Adj. Flow (vph)	404	3	6	472	5	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	407	0	0	478	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60		60	60		60
Sign Control	Free			Free	Stop	

Intersection Summary

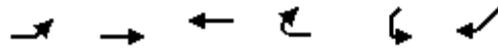
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	35.8%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	364	3	5	415	3	6
Future Vol, veh/h	364	3	5	415	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	88	88	56	56
Heavy Vehicles, %	2	0	0	1	0	0
Mvmt Flow	404	3	6	472	5	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	407	0	890
Stage 1	-	-	-	-	406
Stage 2	-	-	-	-	484
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1163	-	316
Stage 1	-	-	-	-	677
Stage 2	-	-	-	-	624
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1163	-	314
Mov Cap-2 Maneuver	-	-	-	-	314
Stage 1	-	-	-	-	677
Stage 2	-	-	-	-	620

Approach	EB	WB	NE
HCM Control Delay, s	0	0.1	12.8
HCM LOS			B

Minor Lane/Major Mvmt	NELn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	479	-	-	1163	-
HCM Lane V/C Ratio	0.034	-	-	0.005	-
HCM Control Delay (s)	12.8	-	-	8.1	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↑				↑
Traffic Volume (vph)	0	377	0	0	0	0
Future Volume (vph)	0	377	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	0	0	0	1863
Flt Permitted						
Satd. Flow (perm)	0	1863	0	0	0	1863
Link Speed (mph)		60	60		60	
Link Distance (ft)		1214	698		859	
Travel Time (s)		13.8	7.9		9.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	410	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	410	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		0	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	40			9	15	40
Sign Control		Free	Stop		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 39: US 76/378 (Robert E Graham Fwy) EB

PM Peak
 Existing 2023 PM



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑					↗
Traffic Volume (vph)	377	0	0	0	0	214
Future Volume (vph)	377	0	0	0	0	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t						0.865
Flt Protected						
Satd. Flow (prot)	1863	0	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	1863	0	0	0	0	1611
Link Speed (mph)	60			60	35	
Link Distance (ft)	698			1021	170	
Travel Time (s)	7.9			11.6	3.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	410	0	0	0	0	233
Shared Lane Traffic (%)						
Lane Group Flow (vph)	410	0	0	0	0	233
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	L NA	Right	Left	Left	Left	R NA
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Stop	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.8%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 42: US 76 Bus/US 521 (Broad Street/US 76 Bus/US 521 (Broad Street))

PM Peak
 Existing 2023 PM



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Volume (vph)	0	127	0	1291	1035	0
Future Volume (vph)	0	127	0	1291	1035	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	1.00
Fr _t	0.865					
Fl _t Protected						
Satd. Flow (prot)	0	1644	0	5085	3539	0
Fl _t Permitted						
Satd. Flow (perm)	0	1644	0	5085	3539	0
Link Speed (mph)	30		40		35	
Link Distance (ft)	357		329		283	
Travel Time (s)	8.1		5.6		5.5	
Peak Hour Factor	0.92	0.79	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	2%	2%	2%
Adj. Flow (vph)	0	161	0	1403	1125	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	161	0	1403	1125	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	R NA	Left	Left	Left	Right
Median Width(ft)	0		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.1%
Analysis Period (min)	15
	ICU Level of Service A

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑↑	↑↑	
Traffic Vol, veh/h	0	127	0	1291	1035	0
Future Vol, veh/h	0	127	0	1291	1035	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	79	92	92	92	92
Heavy Vehicles, %	2	0	2	2	2	2
Mvmt Flow	0	161	0	1403	1125	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	563	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.9	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.3	-
Pot Cap-1 Maneuver	0	475	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	475	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.4	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT
Capacity (veh/h)	- 475	-
HCM Lane V/C Ratio	- 0.338	-
HCM Control Delay (s)	- 16.4	-
HCM Lane LOS	- C	-
HCM 95th %tile Q(veh)	- 1.5	-



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations				↑		↗
Traffic Volume (vph)	0	0	0	380	0	377
Future Volume (vph)	0	0	0	380	0	377
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	0	0	1863	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	0	1863	0	1611
Link Speed (mph)	40			60	40	
Link Distance (ft)	270			1214	329	
Travel Time (s)	4.6			13.8	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	413	0	410
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	413	0	410
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	36.3%
Analysis Period (min)	15
	ICU Level of Service A

Summary of All Intervals

Start Time	4:50
End Time	6:00
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	7806
Vehs Exited	7779
Starting Vehs	299
Ending Vehs	326
Travel Distance (mi)	8939
Travel Time (hr)	333.1
Total Delay (hr)	95.9
Total Stops	8431
Fuel Used (gal)	318.3

Interval #0 Information Seeding

Start Time	4:50
End Time	5:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	
Vehs Entered	7806
Vehs Exited	7779
Starting Vehs	299
Ending Vehs	326
Travel Distance (mi)	8939
Travel Time (hr)	333.1
Total Delay (hr)	95.9
Total Stops	8431
Fuel Used (gal)	318.3

Arterial Level of Service: EB US 76/378 (Robert E Graham Fwy) WB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E)	37	-	-	0.2	-
Total		-	-	0.2	-

Arterial Level of Service: WB US 76/378 (Robert E Graham Fwy) WB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	70	1.1	29.6	0.5	57
	32	0.5	14.2	0.2	58
	31	3.6	66.4	1.1	57
	9	0.5	8.5	0.2	69
US 76/378 (Robert E)	51	-	-	0.2	-
Jefferson Rd	1	1.4	5.2	0.1	35
Total		7.0	124.0	2.2	64

Arterial Level of Service: EB Jefferson Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	3	45.0	57.4	0.3	17
Total		45.0	57.4	0.3	17

Arterial Level of Service: SW Jefferson Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	3	27.1	48.3	0.2	16
US 76/378 (Robert E)	1	4.8	34.0	0.3	28
Total		31.9	82.3	0.5	21

Arterial Level of Service: EB US 76 Bus (Broad St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Hastings Dr	7	10.6	31.7	0.2	28
Total		10.6	31.7	0.2	28

Arterial Level of Service: WB US 76 Bus (Broad St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E)	2	4.8	26.0	0.2	34
Total		4.8	26.0	0.2	34

Arterial Level of Service: NE US 76/378 (Robert E Graham Fwy) EB

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E	51	6.0	13.7	0.1	16
Total		6.0	13.7	0.1	16

Arterial Level of Service: NB US 521 (Camden Hwy)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
S Pike W	6	1.3	5.8	0.1	80
	5	1.4	5.6	0.0	30
N Pike W	4	2.0	6.1	0.0	29
Jefferson Rd	3	4.4	7.1	0.0	14
Total		9.1	24.6	0.2	37

Arterial Level of Service: SB US 521 (Camden Hwy)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Jefferson Rd	3	6.2	24.4	0.2	30
N Pike W	4	1.7	4.3	0.0	23
	5	1.1	5.3	0.0	34
S Pike W	6	0.4	4.2	0.0	39
US 76 Bus (Broad Str	7	67.0	77.5	0.1	6
Total		76.4	115.6	0.5	14

Arterial Level of Service: EB N Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Electric Dr	11	0.4	37.2	0.4	39
Farmers Telephone Rd	14	1.2	42.2	0.5	47
Clara Louise Kellogg	16	2.0	38.1	0.5	44
Bordeaux Ave	20	4.6	90.1	0.8	30
US 15 (N Main St)	23	47.7	67.1	0.2	9
Total		55.9	274.7	2.3	31

Arterial Level of Service: WB N Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	20	3.1	23.4	0.2	26
Clara Louise Kellogg	16	2.9	58.1	0.8	47
Farmers Telephone Rd	14	1.7	37.0	0.5	45
Electric Dr	11	2.3	42.8	0.5	46
US 521 (Camden Hwy)	4	319.5	352.9	0.4	4
Total		329.4	514.3	2.3	16

Arterial Level of Service: EB S Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	8	3.9	22.8	0.2	25
Market St	10	1.5	20.1	0.2	35
E Wesmark Blvd	12	2.0	17.3	0.2	37
Bultman Dr	13	2.1	24.7	0.3	41
Brookehollow Place D	26	0.7	29.8	0.2	30
Hilliard Dr	15	0.8	17.4	0.1	28
Wall St	17	2.0	25.5	0.3	40
Miller Rd	18	25.3	47.8	0.2	18
Carolina Ave	19	2.3	19.2	0.1	27
Bordeaux Ave	22	3.2	42.2	0.3	28
N Main St	25	16.1	39.8	0.2	18
Total		59.9	306.6	2.4	28

Arterial Level of Service: WB S Pike W

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Bordeaux Ave	22	3.8	29.0	0.2	25
Carolina Ave	19	3.3	42.3	0.3	28
	18	17.4	34.2	0.1	15
Wall St	17	9.5	39.1	0.2	22
Hilliard Dr	15	3.2	24.6	0.3	42
Brookehollow Place D	26	0.9	17.0	0.1	29
Bultman Dr	13	3.1	31.9	0.2	28
E Wesmark Blvd	12	5.4	27.9	0.3	37
Market St	10	2.4	16.1	0.2	39
	8	1.2	19.9	0.2	35
US 521 (Camden Hwy)	6	124.8	143.4	0.2	4
Total		174.9	425.4	2.4	20

Arterial Level of Service: EB US 76 Bus (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Hastings Dr	7	10.6	31.7	0.2	28
Total		10.6	31.7	0.2	28

Arterial Level of Service: WB US 76 Bus (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 76/378 (Robert E)	2	4.8	26.0	0.2	34
Total		4.8	26.0	0.2	34

Arterial Level of Service: WB US 76 Bus/US 521 (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
US 521 (Camden Hwy)	7	14.0	18.8	0.1	10
Total		14.0	18.8	0.1	10

Arterial Level of Service: SB US 76 Bus/US 521 (Broad Street)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	42	1.6	7.4	0.1	26
Total		1.6	7.4	0.1	26

Arterial Level of Service: NB US 15 (N Main St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
S Pike E	24	9.4	26.6	0.1	17
Strange St	23	2.2	10.5	0.1	19
Total		11.6	37.1	0.2	17

Arterial Level of Service: SB US 15 (N Main St)

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N Pike W	23	8.6	27.8	0.1	18
S Pike W	24	3.0	10.8	0.1	19
S Pike W	25	21.4	38.1	0.1	12
Total		33.1	76.8	0.3	15

Intersection: 1: US 76/378 (Robert E Graham Fwy) WB & Jefferson Rd

Movement	WB	SW
Directions Served	T	R
Maximum Queue (ft)	52	74
Average Queue (ft)	9	18
95th Queue (ft)	35	50
Link Distance (ft)	189	1275
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: US 76/378 (Broad Street)/US 76 Bus (Broad St) & US 76/378 (Robert E Graham Fwy) EB

Movement	EB	WB
Directions Served	L	TR
Maximum Queue (ft)	375	82
Average Queue (ft)	171	8
95th Queue (ft)	301	43
Link Distance (ft)	381	1128
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: US 521 (Camden Hwy) & Jefferson Rd

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	29	56	150	39	110	131	149	194	116
Average Queue (ft)	4	25	65	26	57	71	42	75	23
95th Queue (ft)	20	58	109	47	104	113	93	156	61
Link Distance (ft)			1070		88	88		1030	1030
Upstream Blk Time (%)					2	2			
Queuing Penalty (veh)					11	10			
Storage Bay Dist (ft)		75		25			150		
Storage Blk Time (%)		0	9	13	12		0	0	
Queuing Penalty (veh)		0	3	60	7		0	0	

Intersection: 4: US 521 (Camden Hwy) & N Pike W

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	L	T
Maximum Queue (ft)	895	108	258	67	135
Average Queue (ft)	473	14	38	36	46
95th Queue (ft)	911	61	135	56	120
Link Distance (ft)	2064	197	197		88
Upstream Blk Time (%)			1		3
Queuing Penalty (veh)			6		9
Storage Bay Dist (ft)				25	
Storage Blk Time (%)				30	1
Queuing Penalty (veh)				94	1

Intersection: 5: US 521 (Camden Hwy)

Movement	WB	NB	NB	SB
Directions Served	LR	T	T	T
Maximum Queue (ft)	86	31	22	69
Average Queue (ft)	40	2	1	5
95th Queue (ft)	70	15	7	32
Link Distance (ft)	988	179	179	197
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: US 521 (Camden Hwy) & S Pike W

Movement	WB	WB	NB	SB	SB	SB
Directions Served	L	R	TR	L	T	T
Maximum Queue (ft)	152	96	52	176	196	165
Average Queue (ft)	50	56	10	103	29	10
95th Queue (ft)	122	81	35	160	136	75
Link Distance (ft)	736		542		179	179
Upstream Blk Time (%)				1	1	0
Queuing Penalty (veh)				0	2	0
Storage Bay Dist (ft)		150		200		
Storage Blk Time (%)	1			1	1	
Queuing Penalty (veh)	2			1	2	

Intersection: 7: Hastings Dr/US 521 (Camden Hwy) & US 76 Bus (Broad Street)/US 76 Bus/US 521 (Broad Street)

Movement	EB	EB	EB	WB	WB	WB	SB	SB
Directions Served	L	T	TR	L	T	T	L	LTR
Maximum Queue (ft)	163	191	122	222	242	227	227	263
Average Queue (ft)	68	71	58	62	169	129	127	163
95th Queue (ft)	135	133	111	140	251	214	201	251
Link Distance (ft)		1128	1128		227	227	542	542
Upstream Blk Time (%)				0	2	0		
Queuing Penalty (veh)				0	7	1		
Storage Bay Dist (ft)	150			200				
Storage Blk Time (%)	1				3			
Queuing Penalty (veh)	2				2			

Intersection: 8: S Pike W

Movement	EB
Directions Served	LT
Maximum Queue (ft)	140
Average Queue (ft)	62
95th Queue (ft)	124
Link Distance (ft)	736
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 9: US 76/378 (Robert E Graham Fwy) WB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 10: Market St & S Pike W

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	73	0	22
Average Queue (ft)	9	0	1
95th Queue (ft)	39	0	7
Link Distance (ft)	845	967	967
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: N Pike W & Electric Dr

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	23	61
Average Queue (ft)	1	20
95th Queue (ft)	8	46
Link Distance (ft)	2064	703
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: E Wesmark Blvd & S Pike W

Movement	WB	NB	NB
Directions Served	LT	L	R
Maximum Queue (ft)	111	82	54
Average Queue (ft)	40	27	20
95th Queue (ft)	90	56	45
Link Distance (ft)	1428	820	820
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Bultman Dr & S Pike W

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	99	94
Average Queue (ft)	34	45
95th Queue (ft)	79	75
Link Distance (ft)	1224	1069
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: N Pike W & Farmers Telephone Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	27	24
Average Queue (ft)	2	12
95th Queue (ft)	12	31
Link Distance (ft)	2830	666
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 15: Hilliard Dr & S Pike W

Movement	WB	NE
Directions Served	LT	LR
Maximum Queue (ft)	96	53
Average Queue (ft)	16	37
95th Queue (ft)	60	58
Link Distance (ft)	1432	627
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 16: N Pike W & Clara Louise Kellogg Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	31	52
Average Queue (ft)	1	25
95th Queue (ft)	10	50
Link Distance (ft)	2384	374
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Wall St & S Pike W

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	28	85
Average Queue (ft)	3	24
95th Queue (ft)	16	52
Link Distance (ft)	1184	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Miller Rd/S Pike W

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	96	119	287	349
Average Queue (ft)	33	58	92	154
95th Queue (ft)	67	106	201	250
Link Distance (ft)		420	703	1184
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 19: Carolina Ave & S Pike W

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	31	96
Average Queue (ft)	11	43
95th Queue (ft)	35	79
Link Distance (ft)		405
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Bordeaux Ave & N Pike W

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	108	79	31
Average Queue (ft)	30	18	2
95th Queue (ft)	79	60	15
Link Distance (ft)	820	79	305
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 21: Bordeaux Ave & US 76/378 (Robert E Graham Fwy) EB/US 76/378 (Robert E Graham Fwy)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 22: S Pike W & Bordeaux Ave

Movement	EB	WB	SB	SB
Directions Served	L	TR	L	R
Maximum Queue (ft)	122	37	96	30
Average Queue (ft)	54	1	50	10
95th Queue (ft)	102	12	92	32
Link Distance (ft)		972	311	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	150			100
Storage Blk Time (%)			1	
Queuing Penalty (veh)			0	

Intersection: 23: US 15 (N Main St) & N Pike W/Strange St

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	204	200	138	119	168	40	46	111	134
Average Queue (ft)	55	68	39	73	8	9	7	38	40
95th Queue (ft)	137	126	88	124	59	29	29	93	101
Link Distance (ft)	820		991		218	218		682	682
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		100		100			75		
Storage Blk Time (%)	6	1		4				2	
Queuing Penalty (veh)	15	1		6				0	

Intersection: 24: US 15 (N Main St) & S Pike W/S Pike E

Movement	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	TR	L	TR	T	TR	L	T	TR
Maximum Queue (ft)	31	140	150	237	180	51	116	158
Average Queue (ft)	3	79	33	105	70	20	44	62
95th Queue (ft)	18	136	84	206	162	47	97	119
Link Distance (ft)	754		719	561	561		218	218
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		175				100		
Storage Blk Time (%)				6			1	
Queuing Penalty (veh)				0			1	

Intersection: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	TR	L	T	R	L	T	TR	L	L	T
Maximum Queue (ft)	145	122	117	224	295	246	199	179	114	115	148	136
Average Queue (ft)	72	55	61	17	148	71	80	77	29	54	78	76
95th Queue (ft)	130	97	106	85	272	136	137	130	69	103	122	138
Link Distance (ft)		972			842	842		448			561	561
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	250		125	125			250		100	250		
Storage Blk Time (%)		0	1		22			5	0			
Queuing Penalty (veh)		1	2		5			11	0			

Intersection: 25: N Main St/US 15 (N Main St) & S Pike W/US 15 (N Lafayette Dr)

Movement	SB
Directions Served	R
Maximum Queue (ft)	218
Average Queue (ft)	76
95th Queue (ft)	149
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	225
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 26: Brookeshollow Place Dwy & S Pike W

Movement	NE
Directions Served	LR
Maximum Queue (ft)	23
Average Queue (ft)	4
95th Queue (ft)	18
Link Distance (ft)	727
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 37: US 76/378 (Robert E Graham Fwy) WB & US 76/378 (Robert E Graham Fwy) EB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 39: US 76/378 (Robert E Graham Fwy) EB

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 42: US 76 Bus/US 521 (Broad Street/US 76 Bus/US 521 (Broad Street))

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	74	82	31
Average Queue (ft)	41	7	1
95th Queue (ft)	66	41	10
Link Distance (ft)	310	300	300
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 51: US 76/378 (Robert E Graham Fwy) EB & US 76/378 (Robert E Graham Fwy) WB

Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

Network Summary

Network wide Queuing Penalty: 265