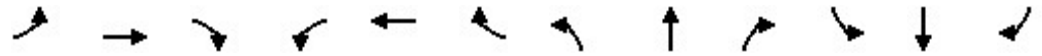


APPENDIX P
Intersection Capacity Analyses
Weekday PM Peak Hour
2030 Projected Traffic Conditions with the Proposed Improvements

Intersection Capacity Analysis

1: Washington St & Sherman St

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Volume (vph)	34	133	68	68	111	81	52	326	52	31	494	37
Future Volume (vph)	34	133	68	68	111	81	52	326	52	31	494	37
Confl. Peds. (#/hr)	5		3	3		5	5		6	6		5
Peak Hour Factor	0.79	0.79	0.79	0.89	0.89	0.89	0.89	0.89	0.89	0.92	0.92	0.92
Growth Factor	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	328	0	65	475	0	38	646	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		3.0	10.0		2.0	10.0	
Minimum Split (s)	12.5	12.5		12.5	12.5		7.0	15.0		6.0	15.0	
Total Split (s)	26.0	26.0		26.0	26.0		7.0	36.0		6.0	35.0	
Total Split (%)	28.9%	28.9%		28.9%	28.9%		7.8%	40.0%		6.7%	38.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
v/c Ratio		0.68			0.83		0.32	0.57		0.11	0.81	
Control Delay		31.6			43.3		15.2	19.4		11.8	30.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		31.6			43.3		15.2	19.4		11.8	30.2	
Queue Length 50th (ft)		112			116		11	135		7	220	
Queue Length 95th (ft)		#252			#349		45	339		30	#606	
Internal Link Dist (ft)		308			288			525			214	
Turn Bay Length (ft)							100			50		
Base Capacity (vph)		487			397		205	845		335	794	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.68			0.83		0.32	0.56		0.11	0.81	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 70.8

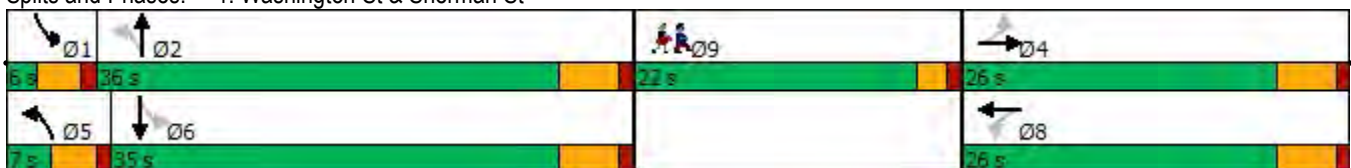
Natural Cycle: 100

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Washington St & Sherman St



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection Capacity Analysis
2: Washington St & Revere St/Driveway

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	55	0	102	3	0	2	69	447	2	0	562	48
Future Volume (vph)	55	0	102	3	0	2	69	447	2	0	562	48
Confl. Peds. (#/hr)	11		3	3		11	19		31	31		19
Peak Hour Factor	0.72	0.72	0.72	0.42	0.42	0.42	0.92	0.92	0.92	0.80	0.80	0.80
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Heavy Vehicles (%)	5%	5%	5%	0%	0%	0%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	0	0	13	0	0	608	0	0	824	0
Turn Type	Perm	NA		Perm	NA		Perm	NA			NA	
Protected Phases		4			8			2				6
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		15.0	15.0		15.0	15.0	
Total Split (s)	22.0	22.0		22.0	22.0		59.0	59.0		59.0	59.0	
Total Split (%)	21.4%	21.4%		21.4%	21.4%		57.3%	57.3%		57.3%	57.3%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
v/c Ratio		0.90			0.06			0.75			0.67	
Control Delay		64.7			0.4			23.4			17.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		64.7			0.4			23.4			17.3	
Queue Length 50th (ft)		103			0			179			216	
Queue Length 95th (ft)		134			0			#618			508	
Internal Link Dist (ft)		383			46			533			146	
Turn Bay Length (ft)												
Base Capacity (vph)		296			255			811			1235	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.80			0.05			0.75			0.67	

Intersection Summary

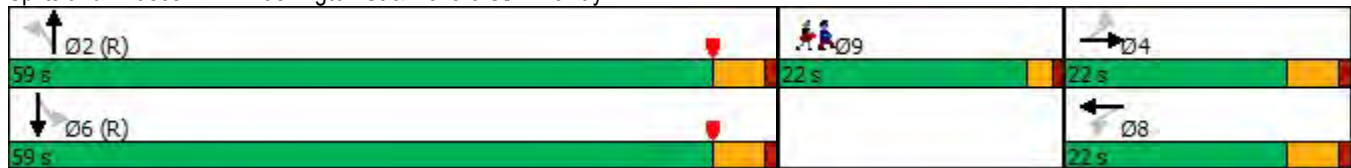
Cycle Length: 103
 Actuated Cycle Length: 103
 Offset: 23 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis

2: Washington St & Revere St/Driveway

08/22/2022

Splits and Phases: 2: Washington St & Revere St/Driveway



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	21%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection Capacity Analysis
3: Washington St & Bolivar St

08/22/2022



Lane Group	NWL	NWR	NET	NER	SWL	SWT	Ø7
Lane Configurations							
Traffic Volume (vph)	225	94	354	210	112	589	
Future Volume (vph)	225	94	354	210	112	589	
Confl. Peds. (#/hr)	7	11		27	27		
Peak Hour Factor	0.86	0.86	0.89	0.89	0.86	0.86	
Growth Factor	108%	108%	108%	108%	108%	108%	
Heavy Vehicles (%)	1%	1%	2%	2%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	283	118	685	0	141	740	
Turn Type	Prot	pt+ov	NA		pm+pt	NA	
Protected Phases	8	8 1	2		1	6	7
Permitted Phases					6		
Detector Phase	8	8 1	2		1	6	
Switch Phase							
Minimum Initial (s)	5.0		10.0		2.0	10.0	7.0
Minimum Split (s)	10.5		15.5		7.5	15.5	20.0
Total Split (s)	21.0		50.0		9.0	59.0	20.0
Total Split (%)	21.0%		50.0%		9.0%	59.0%	20%
Yellow Time (s)	4.0		4.0		4.0	4.0	2.0
All-Red Time (s)	1.5		1.5		1.5	1.5	1.0
Lost Time Adjust (s)	0.0		0.0		0.0	0.0	
Total Lost Time (s)	5.5		5.5		5.5	5.5	
Lead/Lag	Lag		Lead		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	None		C-Min		None	C-Min	None
v/c Ratio	0.83	0.27	0.77		0.44	0.64	
Control Delay	61.4	27.9	29.1		20.7	16.9	
Queue Delay	0.0	0.0	13.6		0.0	1.5	
Total Delay	61.4	27.9	42.7		20.7	18.4	
Queue Length 50th (ft)	167	51	324		29	233	
Queue Length 95th (ft)	#330	76	#604		71	453	
Internal Link Dist (ft)	291		172			533	
Turn Bay Length (ft)		150			200		
Base Capacity (vph)	342	444	885		321	1162	
Starvation Cap Reductn	0	0	190		0	241	
Spillback Cap Reductn	0	0	0		0	0	
Storage Cap Reductn	0	0	0		0	0	
Reduced v/c Ratio	0.83	0.27	0.99		0.44	0.80	

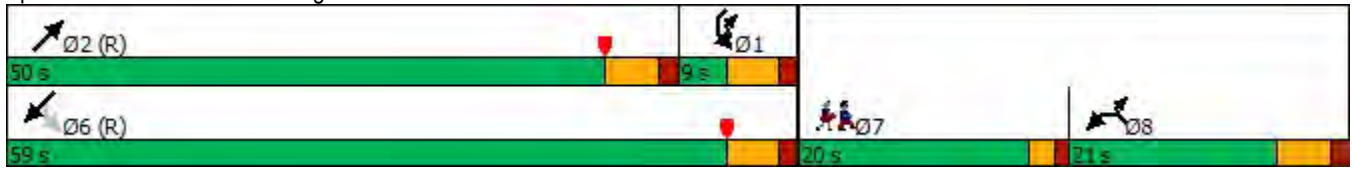
Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 2 (2%), Referenced to phase 2:NET and 6:SWTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis
3: Washington St & Bolivar St

08/22/2022

















Splits and Phases: 3: Washington St & Bolivar St



Intersection Capacity Analysis (HCM 200 Unsignalized)

4: Washington St & Mechanic St/Wall St

08/22/2022

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	7	7	4	52	1	35	2	505	67	35	774	13
Future Volume (Veh/h)	7	7	4	52	1	35	2	505	67	35	774	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.64	0.64	0.64	0.71	0.71	0.71	0.86	0.86	0.86	0.91	0.91	0.91
Hourly flow rate (vph)	12	12	7	79	2	53	3	634	84	42	919	15
Pedestrians		22			8			4			1	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		2			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								205			252	
pX, platoon unblocked	0.77	0.77	0.73	0.77	0.77	0.92	0.73			0.92		
vC, conflicting volume	1770	1764	952	1718	1730	685	956			726		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1624	1618	750	1557	1573	617	755			661		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	76	84	98	0	97	88	100			95		
cM capacity (veh/h)	51	74	295	56	78	450	612			853		
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	31	134	721	976								
Volume Left	12	79	3	42								
Volume Right	7	53	84	15								
cSH	73	87	612	853								
Volume to Capacity	0.42	1.55	0.00	0.05								
Queue Length 95th (ft)	42	266	0	4								
Control Delay (s)	86.1	379.8	0.1	1.4								
Lane LOS	F	F	A	A								
Approach Delay (s)	86.1	379.8	0.1	1.4								
Approach LOS	F	F										
Intersection Summary												
Average Delay				29.6								
Intersection Capacity Utilization			88.3%		ICU Level of Service					E		
Analysis Period (min)			15									

Intersection Capacity Analysis
5: Church St & Washington St

08/22/2022



Lane Group	EBL	EBR	NEL	NET	SWT	SWR	Ø2	Ø3	Ø4	Ø5
Lane Configurations										
Traffic Volume (vph)	0	0	258	577	595	236				
Future Volume (vph)	0	0	258	577	595	236				
Confl. Peds. (#/hr)	3	4	9			9				
Peak Hour Factor	0.25	0.25	0.90	0.90	0.90	0.90				
Growth Factor	108%	108%	108%	108%	108%	108%				
Heavy Vehicles (%)	0%	0%	2%	2%	1%	1%				
Shared Lane Traffic (%)										
Lane Group Flow (vph)	0	0	310	692	997	0				
Turn Type			pm+pt	NA	NA					
Protected Phases			4 5	2 4 5	6		2	3	4	5
Permitted Phases			2 4 5							
Detector Phase			4 5	2 4 5	6					
Switch Phase										
Minimum Initial (s)				10.0	10.0	7.0	5.0	1.5		
Minimum Split (s)				15.5	50.0	21.0	10.5	7.0		
Total Split (s)				43.0	50.0	21.0	30.0	7.0		
Total Split (%)				42.6%	50%	21%	30%	7%		
Yellow Time (s)				4.0	4.0	2.0	4.0	4.0		
All-Red Time (s)				1.5	1.5	1.0	1.5	1.0		
Lost Time Adjust (s)				0.0						
Total Lost Time (s)				5.5						
Lead/Lag				Lead		Lead	Lag	Lag		
Lead-Lag Optimize?				Yes		Yes	Yes	Yes		
Recall Mode				C-Min	C-Min	None	None	None		
v/c Ratio			0.56	0.39	0.97					
Control Delay			24.5	2.4	44.4					
Queue Delay			23.3	0.1	41.8					
Total Delay			47.9	2.4	86.2					
Queue Length 50th (ft)			103	0	525					
Queue Length 95th (ft)			180	225	#1131					
Internal Link Dist (ft)	599			58	125					
Turn Bay Length (ft)										
Base Capacity (vph)			615	1752	1032					
Starvation Cap Reductn			300	170	173					
Spillback Cap Reductn			0	0	0					
Storage Cap Reductn			0	0	0					
Reduced v/c Ratio			0.98	0.44	1.16					

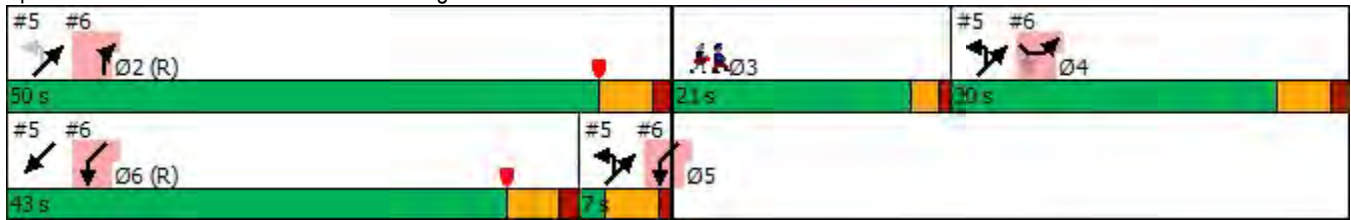
Intersection Summary

Cycle Length: 101
 Actuated Cycle Length: 101
 Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWT, Start of Yellow
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis 5: Church St & Washington St

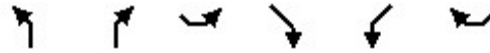
08/22/2022

Splits and Phases: 5: Church St & Washington St



Intersection Capacity Analysis
6: Washington St & Neponset St

08/22/2022



Lane Group	NBL	NBR	SEL	SER	SWL	SWR	Ø3	Ø5	Ø6
Lane Configurations		↗	↘	↘	↘				
Traffic Volume (vph)	0	619	239	488	583	0			
Future Volume (vph)	0	619	239	488	583	0			
Confl. Peds. (#/hr)	8		4	1		8			
Peak Hour Factor	0.90	0.90	0.98	0.98	0.93	0.93			
Growth Factor	108%	108%	108%	108%	108%	108%			
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%			
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	743	263	538	677	0			
Turn Type		Prot	Prot	Perm	Prot				
Protected Phases		2	4		5 6		3	5	6
Permitted Phases				4					
Detector Phase		2	4	4	5 6				
Switch Phase									
Minimum Initial (s)		10.0	5.0	5.0			7.0	1.5	10.0
Minimum Split (s)		50.0	10.5	10.5			21.0	7.0	15.5
Total Split (s)		50.0	30.0	30.0			21.0	7.0	43.0
Total Split (%)		49.5%	29.7%	29.7%			21%	7%	43%
Yellow Time (s)		4.0	4.0	4.0			2.0	4.0	4.0
All-Red Time (s)		1.5	1.5	1.5			1.0	1.0	1.5
Lost Time Adjust (s)		0.0	0.0	0.0					
Total Lost Time (s)		5.5	5.5	5.5					
Lead/Lag			Lag	Lag			Lead	Lag	Lead
Lead-Lag Optimize?			Yes	Yes			Yes	Yes	Yes
Recall Mode		C-Min	None	None			None	None	C-Min
v/c Ratio		0.59	0.70	0.80	0.59				
Control Delay		5.0	47.0	16.9	16.3				
Queue Delay		0.0	0.0	0.0	5.4				
Total Delay		5.0	47.0	16.9	21.6				
Queue Length 50th (ft)		27	155	52	205				
Queue Length 95th (ft)		178	236	184	#596				
Internal Link Dist (ft)	644		531		158				
Turn Bay Length (ft)									
Base Capacity (vph)		1262	441	718	1152				
Starvation Cap Reductn		0	0	0	404				
Spillback Cap Reductn		0	0	0	0				
Storage Cap Reductn		0	0	0	0				
Reduced v/c Ratio		0.59	0.60	0.75	0.91				

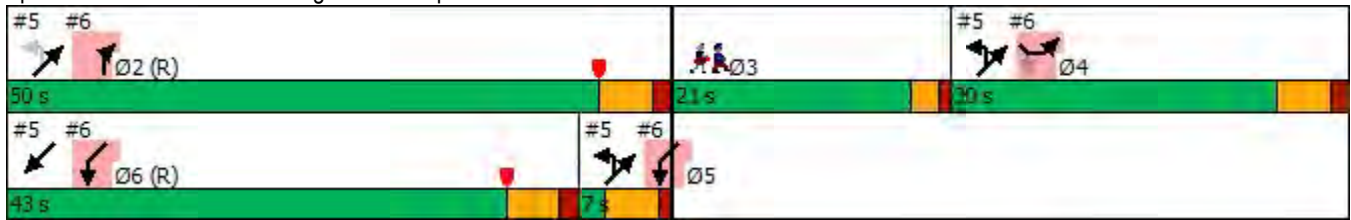
Intersection Summary

Cycle Length: 101
 Actuated Cycle Length: 101
 Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWT, Start of Yellow
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis
6: Washington St & Neponset St

08/22/2022

Splits and Phases: 6: Washington St & Neponset St



Intersection Capacity Analysis
7: Washington St & High St

08/22/2022



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	36	120	119	544	994	74	
Future Volume (vph)	36	120	119	544	994	74	
Confl. Peds. (#/hr)		1	1			1	
Peak Hour Factor	0.87	0.87	0.94	0.94	0.96	0.96	
Growth Factor	108%	108%	108%	108%	108%	108%	
Heavy Vehicles (%)	2%	2%	1%	1%	1%	1%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	45	149	137	625	1201	0	
Turn Type	Prot	pm+ov	pm+pt	NA	NA		
Protected Phases	4	5	5	2	6		3
Permitted Phases		4	2				
Detector Phase	4	5	5	2	6		
Switch Phase							
Minimum Initial (s)	5.0	2.0	2.0	3.0	5.0		3.0
Minimum Split (s)	10.0	7.0	7.0	8.0	10.0		23.0
Total Split (s)	12.0	8.0	8.0	55.0	47.0		23.0
Total Split (%)	13.3%	8.9%	8.9%	61.1%	52.2%		26%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0		2.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0		
Lead/Lag	Lag	Lead	Lead		Lag		Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes		Yes
Recall Mode	None	None	None	Min	None		None
v/c Ratio	0.27	0.51	0.74	0.41	0.97		
Control Delay	36.2	12.1	36.4	5.8	37.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	36.2	12.1	36.4	5.8	37.2		
Queue Length 50th (ft)	17	0	11	65	~486		
Queue Length 95th (ft)	56	45	#117	299	#1137		
Internal Link Dist (ft)	418			1059	682		
Turn Bay Length (ft)	50						
Base Capacity (vph)	182	293	185	1543	1234		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.25	0.51	0.74	0.41	0.97		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 69.4
 Natural Cycle: 130
 Control Type: Actuated-Uncoordinated
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis

7: Washington St & High St

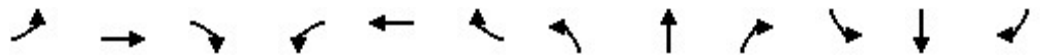
08/22/2022

Splits and Phases: 7: Washington St & High St



Intersection Capacity Analysis
 8: Washington St & Shoppes Village Driveway

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	18	4	13	73	0	204	25	469	48	247	778	25
Future Volume (vph)	18	4	13	73	0	204	25	469	48	247	778	25
Confl. Peds. (#/hr)										1		
Peak Hour Factor	0.73	0.73	0.73	0.95	0.95	0.95	0.90	0.90	0.90	0.98	0.98	0.98
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	52	0	0	83	232	30	621	0	272	885	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	3.0	6.0		3.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Total Split (s)	15.0	15.0		15.0	15.0	15.0	7.0	40.0		14.0	47.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%	16.7%	7.8%	44.4%		15.6%	52.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
v/c Ratio		0.33			0.51	0.63	0.12	0.55		0.50	0.67	
Control Delay		31.8			49.1	13.5	3.8	9.0		13.3	14.8	
Queue Delay		0.7			1.6	0.0	0.0	0.2		0.0	0.1	
Total Delay		32.5			50.7	13.5	3.8	9.2		13.3	14.8	
Queue Length 50th (ft)		17			45	0	1	63		29	233	
Queue Length 95th (ft)		40			91	66	m7	#486		122	#755	
Internal Link Dist (ft)		81			235			168			854	
Turn Bay Length (ft)										200		
Base Capacity (vph)		176			183	387	249	1125		568	1319	
Starvation Cap Reductn		0			0	0	0	83		0	0	
Spillback Cap Reductn		27			29	0	0	0		0	19	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.35			0.54	0.60	0.12	0.60		0.48	0.68	

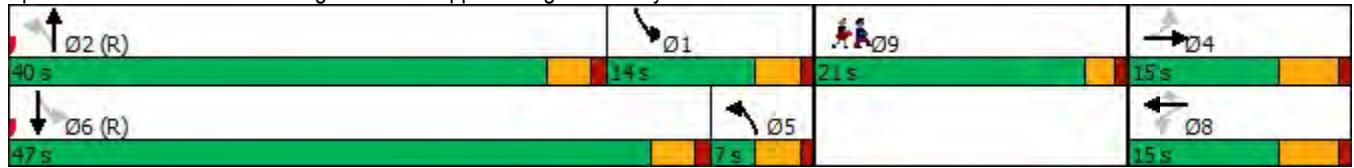
Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection Capacity Analysis
 8: Washington St & Shoppes Village Driveway

08/22/2022

Splits and Phases: 8: Washington St & Shoppes Village Driveway



















Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection Capacity Analysis (HCM 200 Unsignalized)

9: Washington St & Plaza Driveway

08/22/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	38	0	0	52	0	487	93	0	829	0
Future Volume (Veh/h)	0	0	38	0	0	52	0	487	93	0	829	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.67	0.67	0.67	0.91	0.91	0.91	0.93	0.93	0.93	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	61	0	0	62	0	566	108	0	914	0
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								TWLTL			TWLTL	
Median storage (veh)								2			2	
Upstream signal (ft)								201			248	
pX, platoon unblocked	0.77	0.77	0.68	0.77	0.77	0.81	0.68			0.81		
vC, conflicting volume	1597	1590	915	1596	1536	621	915			675		
vC1, stage 1 conf vol	915	915		621	621							
vC2, stage 2 conf vol	682	675		975	915							
vCu, unblocked vol	1083	1074	637	1081	1004	420	637			486		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)	6.1	5.5		6.1	5.5							
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	81	100	100	88	100			100		
cM capacity (veh/h)	268	287	322	218	297	517	644			875		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	61	62	674	914								
Volume Left	0	0	0	0								
Volume Right	61	62	108	0								
cSH	322	517	1700	1700								
Volume to Capacity	0.19	0.12	0.40	0.54								
Queue Length 95th (ft)	17	10	0	0								
Control Delay (s)	18.8	12.9	0.0	0.0								
Lane LOS	C	B										
Approach Delay (s)	18.8	12.9	0.0	0.0								
Approach LOS	C	B										
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			57.1%		ICU Level of Service				B			
Analysis Period (min)			15									

Intersection Capacity Analysis
10: Washington St & Cobb Corner

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Volume (vph)	29	2	11	79	6	60	41	476	39	88	826	32
Future Volume (vph)	29	2	11	79	6	60	41	476	39	88	826	32
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.73	0.73	0.73	0.78	0.78	0.78	0.97	0.97	0.97	0.96	0.96	0.96
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	62	0	0	117	83	46	573	0	99	965	0
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	3.0	5.0		3.0	5.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	10.0	7.0	10.0		7.0	10.0	
Total Split (s)	16.0	16.0		16.0	16.0	16.0	7.0	43.0		10.0	46.0	
Total Split (%)	17.8%	17.8%		17.8%	17.8%	17.8%	7.8%	47.8%		11.1%	51.1%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	4.0	5.0		4.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?								Yes		Yes		
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
v/c Ratio		0.36			0.64	0.28	0.19	0.50		0.19	0.80	
Control Delay		34.3			54.0	6.8	8.0	14.1		7.7	18.6	
Queue Delay		0.0			0.0	0.0	0.0	1.2		0.0	0.4	
Total Delay		34.3			54.0	6.8	8.0	15.3		7.7	19.0	
Queue Length 50th (ft)		24			63	0	5	157		11	219	
Queue Length 95th (ft)		49			#106	16	27	389		m46	#865	
Internal Link Dist (ft)		38			134			131			121	
Turn Bay Length (ft)												
Base Capacity (vph)		180			195	311	237	1156		518	1210	
Starvation Cap Reductn		0			0	0	0	350		0	37	
Spillback Cap Reductn		0			0	1	0	22		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.34			0.60	0.27	0.19	0.71		0.19	0.82	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 81 (90%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Intersection Capacity Analysis
 10: Washington St & Cobb Corner

08/22/2022

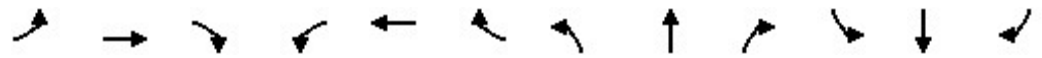
Splits and Phases: 10: Washington St & Cobb Corner



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection Capacity Analysis
 11: Bay Rd/Washington St & N Main St/Sharon St

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	397	70	98	445	133	42	286	31	267	470	166
Future Volume (vph)	150	397	70	98	445	133	42	286	31	267	470	166
Confl. Peds. (#/hr)	1		2	2		1	1		2	2		1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.89	0.89	0.89	0.91	0.91	0.91
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	536	0	113	664	0	51	385	0	317	558	197
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8			6			2		2
Detector Phase	7	4		3	8		1	6		5	2	2
Switch Phase												
Minimum Initial (s)	5.0	10.0		3.0	10.0		3.0	10.0		5.0	10.0	10.0
Minimum Split (s)	9.0	15.0		7.0	15.0		7.0	15.0		9.0	15.0	15.0
Total Split (s)	12.0	43.0		10.0	41.0		7.0	28.0		21.0	42.0	42.0
Total Split (%)	9.4%	33.6%		7.8%	32.0%		5.5%	21.9%		16.4%	32.8%	32.8%
Yellow Time (s)	3.0	4.0		3.0	4.0		3.0	4.0		3.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0		4.0	5.0		4.0	5.0	5.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	C-Max
v/c Ratio	0.77	0.99		0.80	0.68		0.24	0.79		0.80	0.72	0.27
Control Delay	52.6	79.9		65.9	43.0		30.5	56.9		43.2	41.1	9.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	52.9	0.0
Total Delay	52.6	79.9		65.9	43.0		30.5	56.9		43.2	94.1	9.7
Queue Length 50th (ft)	97	438		61	246		19	267		143	348	19
Queue Length 95th (ft)	#185	#675		#142	315		57	#565		#416	#717	88
Internal Link Dist (ft)		217			198			180			132	
Turn Bay Length (ft)				125								
Base Capacity (vph)	223	543		142	979		214	489		396	771	737
Starvation Cap Reductn	0	0		0	0		0	0		0	270	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.77	0.99		0.80	0.68		0.24	0.79		0.80	1.11	0.27

Intersection Summary

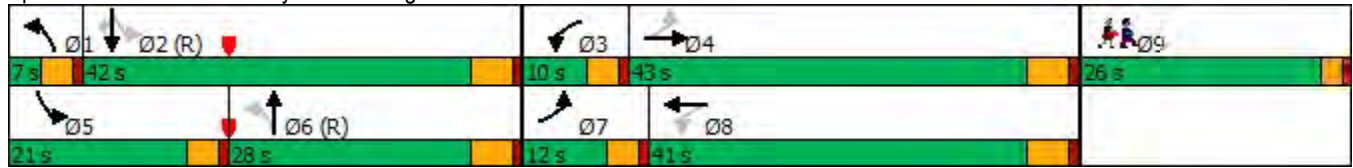
Cycle Length: 128
 Actuated Cycle Length: 128
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green, Master Intersection
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Intersection Capacity Analysis

11: Bay Rd/Washington St & N Main St/Sharon St

08/22/2022

Splits and Phases: 11: Bay Rd/Washington St & N Main St/Sharon St



Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	20%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Intersection Capacity Analysis (HCM 200 Unsignalized)

12: Washington St & Starbucks Driveway

08/22/2022




















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗			↗		↕			↕	
Traffic Volume (veh/h)	0	0	38	0	0	15	0	574	21	0	801	4
Future Volume (Veh/h)	0	0	38	0	0	15	0	574	21	0	801	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.92	0.92	0.92	0.94	0.94	0.94
Hourly flow rate (vph)	0	0	59	0	0	23	0	674	25	0	920	5
Pedestrians		1			1							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		0			0							
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh												2
Upstream signal (ft)								212				211
pX, platoon unblocked												
vC, conflicting volume	1284	1624	464	1206	1614	350	926			700		
vC1, stage 1 conf vol	924	924		688	688							
vC2, stage 2 conf vol	360	700		519	926							
vCu, unblocked vol	1284	1624	464	1206	1614	350	926			700		
tC, single (s)	7.7	6.7	7.1	7.6	6.6	7.0	4.1			4.1		
tC, 2 stage (s)	6.7	5.7		6.6	5.6							
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	89	100	100	96	100			100		
cM capacity (veh/h)	255	268	524	312	280	639	733			892		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	59	23	449	250	613	312						
Volume Left	0	0	0	0	0	0						
Volume Right	59	23	0	25	0	5						
cSH	524	639	1700	1700	1700	1700						
Volume to Capacity	0.11	0.04	0.26	0.15	0.36	0.18						
Queue Length 95th (ft)	9	3	0	0	0	0						
Control Delay (s)	12.7	10.8	0.0	0.0	0.0	0.0						
Lane LOS	B	B										
Approach Delay (s)	12.7	10.8	0.0		0.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			34.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Intersection Capacity Analysis (HCM 200 Unsignalized)

13: Sharon St & Cobb orner Dr

08/22/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	627	4	38	594	20	26	4	37	0	0	27
Future Volume (Veh/h)	8	627	4	38	594	20	26	4	37	0	0	27
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88	0.70	0.70	0.70
Hourly flow rate (vph)	9	744	5	46	721	24	32	5	45	0	0	42
Pedestrians												1
Lane Width (ft)												12.0
Walking Speed (ft/s)												3.5
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		278			313							
pX, platoon unblocked	0.74			0.59			0.72	0.72	0.59	0.72	0.72	0.74
vC, conflicting volume	746			749			1620	1602	746	1626	1581	722
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	477			231			846	823	227	855	793	444
tC, single (s)	4.1			4.1			7.2	6.6	6.3	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.6	4.1	3.4	3.5	4.0	3.3
p0 queue free %	99			94			81	98	91	100	100	91
cM capacity (veh/h)	795			788			172	205	475	169	216	452
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total	758	767	24	82	42							
Volume Left	9	46	0	32	0							
Volume Right	5	0	24	45	42							
cSH	795	788	1700	269	452							
Volume to Capacity	0.01	0.06	0.01	0.30	0.09							
Queue Length 95th (ft)	1	5	0	31	8							
Control Delay (s)	0.3	1.5	0.0	24.1	13.8							
Lane LOS	A	A		C	B							
Approach Delay (s)	0.3	1.5		24.1	13.8							
Approach LOS				C	B							
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			69.5%		ICU Level of Service				C			
Analysis Period (min)			15									

Intersection Capacity Analysis

14: Sharon St & Village Shoppes Dr

08/22/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	647	32	11	557	121	0	0	0	125	1	102
Future Volume (vph)	18	647	32	11	557	121	0	0	0	125	1	102
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.78	0.78	0.78
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	806	0	0	809	0	0	0	0	0	174	141
Turn Type	Perm	NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases	4			8						6		6
Detector Phase	4	4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)	9.0	9.0		9.0	9.0					10.0	10.0	10.0
Total Split (s)	43.0	43.0		43.0	43.0					26.0	26.0	26.0
Total Split (%)	47.8%	47.8%		47.8%	47.8%					28.9%	28.9%	28.9%
Yellow Time (s)	3.0	3.0		3.0	3.0					4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0						0.0	0.0
Total Lost Time (s)	4.0	4.0			4.0						5.0	5.0
Lead/Lag										Lead	Lead	Lead
Lead-Lag Optimize?										Yes	Yes	Yes
Recall Mode	C-Max	C-Max		C-Max	C-Max					Max	Max	Max
v/c Ratio	0.05	0.62			0.64						0.42	0.30
Control Delay	10.6	15.7			16.1						33.0	6.9
Queue Delay	0.0	1.1			0.0						0.0	0.0
Total Delay	10.6	16.8			16.1						33.0	6.9
Queue Length 50th (ft)	4	217			219						84	0
Queue Length 95th (ft)	22	#642			#656						123	30
Internal Link Dist (ft)		233			100			33			115	
Turn Bay Length (ft)	75											
Base Capacity (vph)	392	1300			1265						414	477
Starvation Cap Reductn	0	262			0						0	0
Spillback Cap Reductn	0	0			0						0	0
Storage Cap Reductn	0	0			0						0	0
Reduced v/c Ratio	0.05	0.78			0.64						0.42	0.30

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

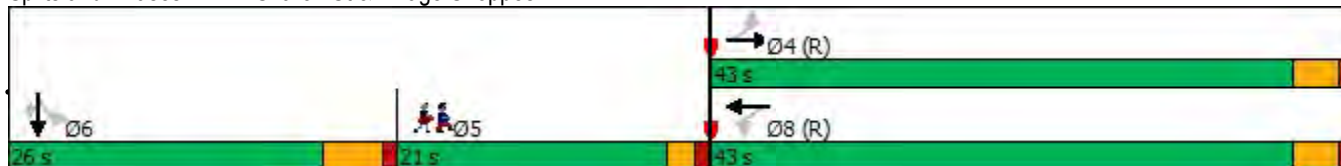
Natural Cycle: 80

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: Sharon St & Village Shoppes Dr



Lane Group	Ø5
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Peak Hour Factor	
Growth Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	5
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	