

APPENDIX M

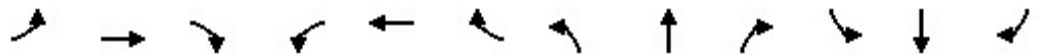
**Intersection Capacity Analyses
Weekday AM/PM and Saturday Peak Hours
Signal Retiming Scenarios under 2030 Projected Traffic Conditions**

**Washington Street at Sherman Street
Washington at Route 27**

Intersection Capacity Analysis

1: Washington St & Sherman St

08/17/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Volume (vph)	55	58	35	63	151	180	47	591	44	27	301	36
Future Volume (vph)	55	58	35	63	151	180	47	591	44	27	301	36
Confl. Peds. (#/hr)	3		1	1		3	6		9	9		9
Peak Hour Factor	0.74	0.74	0.74	0.85	0.85	0.85	0.99	0.99	0.99	0.79	0.79	0.79
Growth Factor	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	232	0	0	538	0	55	744	0	40	495	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	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)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.5	12.5		12.5	12.5		15.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		38.0	38.0		38.0	38.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		42.2%	42.2%		42.2%	42.2%	
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		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.61			0.94		0.20	0.88		0.40	0.60	
Control Delay		28.7			49.5		16.7	33.7		32.3	20.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		28.7			49.5		16.7	33.7		32.3	20.0	
Queue Length 50th (ft)		70			190		12	251		10	136	
Queue Length 95th (ft)		152			#497		53	#709		#53	296	
Internal Link Dist (ft)		308			288			525			214	
Turn Bay Length (ft)							100			50		
Base Capacity (vph)		380			573		278	843		100	823	
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		0.61			0.94		0.20	0.88		0.40	0.60	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.4

Natural Cycle: 120

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

1: Washington St & Sherman St

08/17/2022



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		Perm	NA		Perm	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)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.5	12.5		12.5	12.5		15.0	15.0		15.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		38.0	38.0		38.0	38.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		42.2%	42.2%		42.2%	42.2%	
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		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.59			0.67		0.41	0.58		0.13	0.78	
Control Delay		24.1			28.2		26.1	18.5		15.3	25.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		24.1			28.2		26.1	18.5		15.3	25.5	
Queue Length 50th (ft)		95			96		16	124		8	195	
Queue Length 95th (ft)		211			#295		#78	326		37	#567	
Internal Link Dist (ft)		308			288			525			214	
Turn Bay Length (ft)							100			50		
Base Capacity (vph)		655			562		183	959		339	969	
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		0.51			0.58		0.36	0.50		0.11	0.67	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 65.7

Natural Cycle: 90

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



Intersection Capacity Analysis
 1: Washington St & Sherman St

08/17/2022

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

1: Washington St & Sherman St

08/17/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Traffic Volume (vph)	32	71	58	65	87	36	74	407	67	21	406	19
Future Volume (vph)	32	71	58	65	87	36	74	407	67	21	406	19
Confl. Peds. (#/hr)	3		8	8		3	16		9	9		16
Peak Hour Factor	0.75	0.75	0.75	0.87	0.87	0.87	0.95	0.95	0.95	0.89	0.89	0.89
Growth Factor	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%	112%
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	1%	1%	1%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	0	242	0	87	559	0	26	535	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	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)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	12.5	12.5		12.5	12.5		15.5	15.5		15.5	15.5	
Total Split (s)	30.0	30.0		30.0	30.0		38.0	38.0		38.0	38.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		42.2%	42.2%		42.2%	42.2%	
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		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min		Min	Min	
v/c Ratio		0.51			0.58		0.36	0.71		0.12	0.68	
Control Delay		19.8			23.4		18.6	20.0		14.4	19.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		19.8			23.4		18.6	20.0		14.4	19.1	
Queue Length 50th (ft)		40			45		12	92		3	87	
Queue Length 95th (ft)		135			182		83	#458		29	#402	
Internal Link Dist (ft)		308			288			525			214	
Turn Bay Length (ft)							100			50		
Base Capacity (vph)		970			872		428	1383		391	1391	
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		0.25			0.28		0.20	0.40		0.07	0.38	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 48.9

Natural Cycle: 80

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



Intersection Capacity Analysis
 1: Washington St & Sherman St

08/17/2022

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

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)	155	396	26	16	351	169	70	483	29	147	125	89
Future Volume (vph)	155	396	26	16	351	169	70	483	29	147	125	89
Confl. Peds. (#/hr)	1					1						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.88	0.88	0.88	0.89	0.89	0.89
Growth Factor	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%	116%
Heavy Vehicles (%)	4%	4%	4%	5%	5%	5%	2%	2%	2%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	712	0	0	662	0	0	767	0	192	279	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		8	8		6	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	15.0		15.0	15.0		15.0	15.0		6.0	15.0	
Minimum Split (s)	11.0	21.0		21.0	21.0		21.0	21.0		11.0	21.0	
Total Split (s)	11.0	51.0		40.0	40.0		38.0	38.0		15.0	53.0	
Total Split (%)	8.5%	39.2%		30.8%	30.8%		29.2%	29.2%		11.5%	40.8%	
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	2.0		2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		5.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
v/c Ratio		0.83			0.52			0.86		0.76	0.37	
Control Delay		39.5			24.6			48.1		41.9	21.6	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		39.5			24.6			48.1		41.9	21.6	
Queue Length 50th (ft)		210			148			247		75	104	
Queue Length 95th (ft)		#454			290			#474		#231	235	
Internal Link Dist (ft)		217			198			180			132	
Turn Bay Length (ft)												
Base Capacity (vph)		855			1276			890		254	761	
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		0.83			0.52			0.86		0.76	0.37	

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 109.2

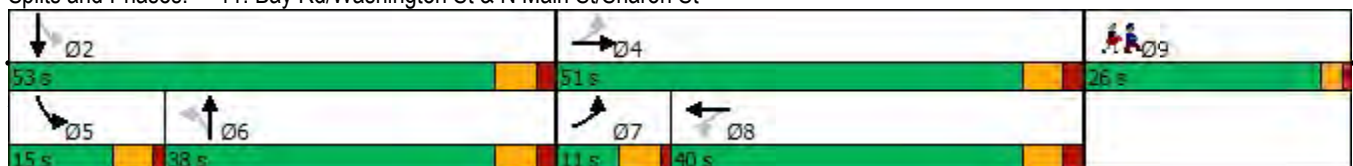
Natural Cycle: 130

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

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



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

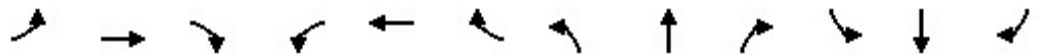
08/22/2022

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

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)	0	708	0	0	777	0	0	436	0	317	755	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		8	8		6	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	15.0		15.0	15.0		15.0	15.0		6.0	15.0	
Minimum Split (s)	11.0	21.0		21.0	21.0		21.0	21.0		11.0	21.0	
Total Split (s)	12.0	50.0		38.0	38.0		38.0	38.0		14.0	52.0	
Total Split (%)	9.4%	39.1%		29.7%	29.7%		29.7%	29.7%		10.9%	40.6%	
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	2.0		2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		5.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
v/c Ratio		0.86			0.85			0.72		0.81	0.96	
Control Delay		41.5			39.1			42.3		41.2	53.9	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		41.5			39.1			42.3		41.2	53.9	
Queue Length 50th (ft)		206			222			128		131	441	
Queue Length 95th (ft)		#455			#482			#269		#396	#976	
Internal Link Dist (ft)		217			198			180			132	
Turn Bay Length (ft)												
Base Capacity (vph)		821			913			603		393	787	
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		0.86			0.85			0.72		0.81	0.96	

Intersection Summary

Cycle Length: 128

Actuated Cycle Length: 107.2

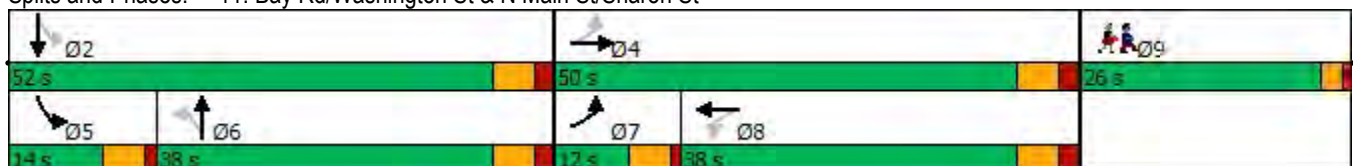
Natural Cycle: 150

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

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



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

08/22/2022

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
 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)	183	270	35	90	329	90	33	309	46	249	255	148
Future Volume (vph)	183	270	35	90	329	90	33	309	46	249	255	148
Confl. Peds. (#/hr)			1	1			3					3
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.86	0.86	0.86	0.93	0.93	0.93
Growth Factor	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%	108%
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	573	0	0	584	0	0	487	0	289	468	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases	7	4			8			6		5	2	
Permitted Phases	4			8			6			2		
Detector Phase	7	4		8	8		6	6		5	2	
Switch Phase												
Minimum Initial (s)	6.0	15.0		15.0	15.0		15.0	15.0		6.0	15.0	
Minimum Split (s)	11.0	21.0		21.0	21.0		21.0	21.0		11.0	21.0	
Total Split (s)	20.0	56.0		36.0	36.0		26.0	26.0		20.0	46.0	
Total Split (%)	15.6%	43.8%		28.1%	28.1%		20.3%	20.3%		15.6%	35.9%	
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	2.0		2.0	2.0		2.0	2.0		1.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.0		5.0	6.0	
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Recall Mode	None	None		None	None		None	None		None	None	
v/c Ratio		0.97dl			0.72			0.67		0.60	0.55	
Control Delay		35.9			30.3			38.1		25.6	23.2	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		35.9			30.3			38.1		25.6	23.2	
Queue Length 50th (ft)		131			126			112		79	142	
Queue Length 95th (ft)		277			264			#308		#307	#514	
Internal Link Dist (ft)		217			198			180			132	
Turn Bay Length (ft)												
Base Capacity (vph)		1228			924			730		482	851	
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		0.47			0.63			0.67		0.60	0.55	

Intersection Summary

Cycle Length: 128
 Actuated Cycle Length: 88
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 dl Defacto Left Lane. Recode with 1 though lane as a left lane.

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)	
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Growth Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
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Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
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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	