

	←	→	↙	↘	←	↙	↘	↑	↗	↖	↓	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⬆			⬆			⬆			⬆	
Volume (vph)	9	469	31	73	165	39	31	90	210	41	78	10
Satd. Flow (prot)	0	1772	0	0	2083	0	0	1873	0	0	1831	0
Flt Permitted		0.993			0.751			0.966			0.831	
Satd. Flow (perm)	0	1762	0	0	1585	0	0	1818	0	0	1546	0
Satd. Flow (RTOR)								156			8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	542	0	0	295	0	0	352	0	0	138	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
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	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.43			0.43			0.43			0.43	
v/c Ratio		0.72			0.43			0.41			0.21	
Control Delay		23.1			12.5			9.0			12.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.1			12.5			9.0			12.8	
LOS		C			B			A			B	
Approach Delay		23.1			12.5			9.0			12.8	
Approach LOS		C			B			A			B	
Queue Length 50th (ft)		185			89			52			34	
Queue Length 95th (ft)		298			m147			110			68	
Internal Link Dist (ft)		240			1082			384			289	
Turn Bay Length (ft)												
Base Capacity (vph)		755			679			868			667	
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		0.72			0.43			0.41			0.21	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 29 (41%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 15.9

Intersection Capacity Utilization 75.1%

Analysis Period (min) 15

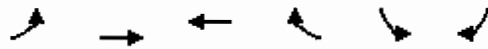
m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B

ICU Level of Service D

Splits and Phases: 1: Gilbert Avenue & Middletown Road

↑ ø2	→ ø4
35 s	35 s
↓ ø6	← ø8
35 s	35 s



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↰	↰	↰	↰	
Volume (vph)	15	720	263	141	373	14
Satd. Flow (prot)	0	1835	1956	1607	1827	0
Flt Permitted		0.992			0.954	
Satd. Flow (perm)	0	1822	1956	1607	1827	0
Satd. Flow (RTOR)				153	2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	799	286	153	420	0
Turn Type	Perm			Perm		
Protected Phases		4	8		6	
Permitted Phases	4			8		
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	
Total Split (s)	53.0	53.0	53.0	53.0	17.0	0.0
Total Split (%)	75.7%	75.7%	75.7%	75.7%	24.3%	0.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.5	
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.5	4.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effect Green (s)		47.0	47.0	47.0	11.5	
Actuated g/C Ratio		0.67	0.67	0.67	0.16	
v/c Ratio		0.65	0.22	0.14	1.39	
Control Delay		19.0	4.9	1.1	222.7	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		19.0	4.9	1.1	222.7	
LOS		B	A	A	F	
Approach Delay		19.0	3.6		222.7	
Approach LOS		B	A		F	
Queue Length 50th (ft)		329	40	0	~249	
Queue Length 95th (ft)		450	67	15	#416	
Internal Link Dist (ft)		1082	397		512	
Turn Bay Length (ft)						
Base Capacity (vph)		1223	1313	1129	302	
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		0.65	0.22	0.14	1.39	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Yellow

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 66.5

Intersection LOS: E

Intersection Capacity Utilization 81.0%

ICU Level of Service D

Analysis Period (min) 15

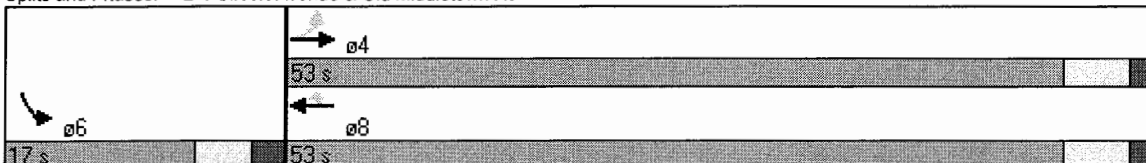
~ Volume exceeds capacity, queue is theoretically infinite.

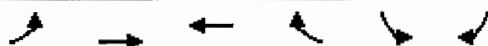
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 21: Gilbert Avenue & Old Middletown Rd





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	26	1066	396	23	99	43
Satd. Flow (prot)	1865	3610	3555	0	1553	1389
Flt Permitted	0.410				0.950	
Satd. Flow (perm)	805	3610	3555	0	1553	1389
Satd. Flow (RTOR)			9			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	1300	511	0	121	52
Turn Type	pm+pt					Prot
Protected Phases	1	6	2		8	8
Permitted Phases	6					
Detector Phase	1	6	2		8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.5	22.0	22.0		23.0	23.0
Total Split (s)	14.0	42.0	28.0	0.0	28.0	28.0
Total Split (%)	20.0%	60.0%	40.0%	0.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.0	3.0		4.0	4.0
All-Red Time (s)	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)	4.5	4.0	4.0	4.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Max	Max		None	None
Act Effct Green (s)	40.6	41.9	37.7		9.7	9.7
Actuated g/C Ratio	0.71	0.73	0.66		0.17	0.17
v/c Ratio	0.05	0.49	0.22		0.46	0.22
Control Delay	4.2	5.6	7.0		27.1	22.3
Queue Delay	0.0	0.1	0.0		0.0	0.0
Total Delay	4.2	5.7	7.0		27.1	22.3
LOS	A	A	A		C	C
Approach Delay		5.7	7.0		25.6	
Approach LOS		A	A		C	
Queue Length 50th (ft)	3	93	26		37	15
Queue Length 95th (ft)	11	146	80		70	36
Internal Link Dist (ft)		397	404		149	
Turn Bay Length (ft)	85					80
Base Capacity (vph)	743	2628	2333		622	556
Starvation Cap Reductn	0	307	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.04	0.56	0.22		0.19	0.09

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 7.7

Intersection Capacity Utilization 42.5%

Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service A

Splits and Phases: 2: Veterans Memorial Drive & Gilbert Ave

ø1	ø2	
14 s	28 s	
ø6	ø8	
42 s	28 s	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	0	3	6	0	22	132	345	4	10	614	542
Satd. Flow (prot)	0	1949	0	0	1888	1794	0	3602	0	0	3259	0
Flt Permitted		0.793			0.851			0.593			0.951	
Satd. Flow (perm)	0	1612	0	0	1691	1794	0	2167	0	0	3099	0
Satd. Flow (RTOR)		3				23		2			516	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	6	23	0	511	0	0	1241	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.5	23.5		23.5	23.5	23.5	20.0	20.0		20.0	20.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	26.0	44.0	44.0	0.0	44.0	44.0	0.0
Total Split (%)	37.1%	37.1%	0.0%	37.1%	37.1%	37.1%	62.9%	62.9%	0.0%	62.9%	62.9%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
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	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)		8.2			8.1	8.1		50.3			50.3	
Actuated g/C Ratio		0.14			0.14	0.14		0.86			0.86	
v/c Ratio		0.10			0.03	0.09		0.27			0.45	
Control Delay		18.8			19.5	9.6		3.6			2.7	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		18.8			19.5	9.6		3.6			2.7	
LOS		B			B	A		A			A	
Approach Delay		18.8			11.7			3.6			2.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		5			2	0		0			0	
Queue Length 95th (ft)		21			10	15		83			131	
Internal Link Dist (ft)		149			127			152			119	
Turn Bay Length (ft)												
Base Capacity (vph)		598			626	678		1865			2739	
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		0.04			0.01	0.03		0.27			0.45	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 58.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 3.3

Intersection Capacity Utilization 67.3%

Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service C

Splits and Phases: 3: Blue Hill Plaza West & Veterans Mem Dvwy

	ø2		ø4
44 s		26 s	
	ø6		ø8
44 s		26 s	

4: S Veterans Mem Dvwy & Blue Hill Plaza East

No-Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	46	443	222	300	405	61	40	0	58	41	1	38
Satd. Flow (prot)	1770	3663	1639	1774	3364	0	0	1823	1794	0	1578	0
Flt Permitted	0.439			0.433				0.796			0.812	
Satd. Flow (perm)	818	3663	1639	808	3364	0	0	1527	1794	0	1314	0
Satd. Flow (RTOR)			271		24				71		46	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	540	271	366	568	0	0	49	71	0	97	0
Turn Type	pm+pt		Perm	pm+pt			custom		custom	custom		
Protected Phases	5	2		1	6							
Permitted Phases	2		2	6	6		4	4	4	4	4	
Detector Phase	5	2	2	1	6		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	20.0	20.0	8.5	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	8.0	39.0	39.0	8.0	39.0	0.0	37.0	37.0	37.0	37.0	37.0	0.0
Total Split (%)	9.5%	46.4%	46.4%	9.5%	46.4%	0.0%	44.0%	44.0%	44.0%	44.0%	44.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	Max	Max	None	Max		None	None	None	None	None	
Act Effect Green (s)	38.4	34.9	34.9	40.4	39.5			7.9	7.9		7.9	
Actuated g/c Ratio	0.67	0.61	0.61	0.70	0.69			0.14	0.14		0.14	
v/c Ratio	0.09	0.24	0.25	0.58	0.24			0.23	0.23		0.44	
Control Delay	3.5	6.5	1.7	9.8	5.7			25.6	8.8		20.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	3.5	6.5	1.7	9.8	5.7			25.6	8.8		20.9	
LOS	A	A	A	A	A			C	A		C	
Approach Delay		4.8			7.3			15.6			20.9	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)	4	43	0	34	44			16	0		17	
Queue Length 95th (ft)	13	68	20	69	70			38	24		47	
Internal Link Dist (ft)		221			2699			458			376	
Turn Bay Length (ft)	85		230	400								
Base Capacity (vph)	605	2221	1100	627	2319			872	1055		770	
Starvation Cap Reductn	0	0	0	0	0			0	0		0	
Spillback Cap Reductn	0	0	0	0	0			0	0		0	
Storage Cap Reductn	0	0	0	0	0			0	0		0	
Reduced v/c Ratio	0.09	0.24	0.25	0.58	0.24			0.06	0.07		0.13	

Intersection Summary

Cycle Length: 84

Actuated Cycle Length: 57.5

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 7.4

Intersection Capacity Utilization 51.4%

Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service A

Splits and Phases: 4: S Veterans Mem Dvwy & Blue Hill Plaza East

		
8 s	39 s	37 s
		
8 s	39 s	

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↗↘		↙↘	↗↘	↙↘	↗↘
Volume (vph)	492	54	421	698	68	514
Satd. Flow (prot)	3710	0	1823	3645	1752	1567
Flt Permitted			0.354		0.950	
Satd. Flow (perm)	3710	0	679	3645	1752	1567
Satd. Flow (RTOR)	14					
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	0	453	751	73	553
Turn Type			pm+pt			Prot
Protected Phases	4		3	8	2	2
Permitted Phases			8			
Minimum Split (s)	20.0		9.5	21.0	21.0	21.0
Total Split (s)	37.0	0.0	21.0	58.0	32.0	32.0
Total Split (%)	41.1%	0.0%	23.3%	64.4%	35.6%	35.6%
Yellow Time (s)	3.5		3.5	3.5	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.0	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effect Green (s)	31.5		52.5	52.5	28.0	28.0
Actuated g/C Ratio	0.35		0.58	0.58	0.31	0.31
v/c Ratio	0.45		0.76	0.35	0.13	1.13
Control Delay	23.3		30.3	10.4	23.2	113.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	23.3		30.3	10.4	23.2	113.9
LOS	C		C	B	C	F
Approach Delay	23.3			17.9	103.3	
Approach LOS	C			B	F	
Queue Length 50th (ft)	130		132	108	30	~370
Queue Length 95th (ft)	178		#210	144	62	#567
Internal Link Dist (ft)	2699			840	354	
Turn Bay Length (ft)			230			85
Base Capacity (vph)	1308		593	2126	545	488
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	0.45		0.76	0.35	0.13	1.13

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBL and 6; Start of Yellow

Natural Cycle: 65

Control Type: Pretimed

Maximum v/c Ratio: 1.13

Intersection Signal Delay: 41.3

Intersection Capacity Utilization 55.1%

Analysis Period (min) 15

Intersection LOS: D

ICU Level of Service B

~ Volume exceeds capacity, queue is theoretically infinite.

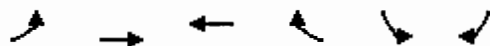
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: S Veterans Mem Dvwy & Blue Hill South

↗ 02	→ 04	↖ 03
32 s	37 s	21 s
	↙ 08	
	58 s	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Volume (vph)	27	990	1075	75	113	48
Satd. Flow (prot)	0	3690	3469	0	1668	1652
Flt Permitted		0.893			0.950	
Satd. Flow (perm)	0	3299	3469	0	1668	1652
Satd. Flow (RTOR)			23			
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1156	1307	0	128	55
Turn Type	Perm					Prot
Protected Phases		4	8		6	6
Permitted Phases	4					
Detector Phase	4	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	22.0	22.0	22.0		10.0	10.0
Total Split (s)	33.0	33.0	33.0	0.0	17.0	17.0
Total Split (%)	66.0%	66.0%	66.0%	0.0%	34.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max		None	None
Act Effect Green (s)		31.6	31.6		8.7	8.7
Actuated g/C Ratio		0.66	0.66		0.18	0.18
v/c Ratio		0.53	0.57		0.42	0.18
Control Delay		7.4	7.6		21.4	17.5
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		7.4	7.6		21.4	17.5
LOS		A	A		C	B
Approach Delay		7.4	7.6		20.2	
Approach LOS		A	A		C	
Queue Length 50th (ft)		90	104		31	13
Queue Length 95th (ft)		154	174		67	35
Internal Link Dist (ft)		382	1044		526	
Turn Bay Length (ft)					165	
Base Capacity (vph)		2172	2291		400	396
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		0.53	0.57		0.32	0.14

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 48

Natural Cycle: 40

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.4

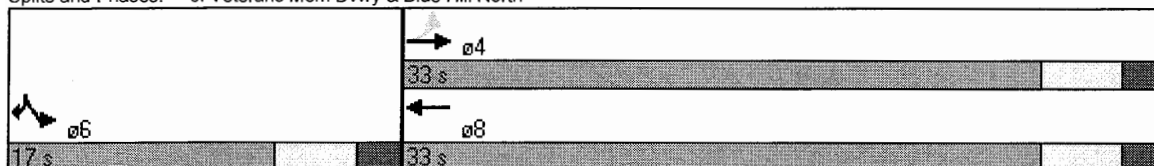
Intersection Capacity Utilization 62.2%

Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service B

Splits and Phases: 6: Veterans Mem Dvwy & Blue Hill North



	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗		↖	↖			↗	
Volume (vph)	61	846	212	30	1097	22	16	4	4	19	3	53
Satd. Flow (prot)	1787	3583	0	1787	3683	0	1787	1740	0	0	1888	0
Flt Permitted	0.170			0.188			0.881				0.911	
Satd. Flow (perm)	320	3583	0	354	3683	0	1657	1740	0	0	1741	0
Satd. Flow (RTOR)		123			8			5			65	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	1291	0	37	1365	0	20	10	0	0	92	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	47.0	47.0	0.0	47.0	47.0	0.0	13.0	13.0	0.0	13.0	13.0	0.0
Total Split (%)	78.3%	78.3%	0.0%	78.3%	78.3%	0.0%	21.7%	21.7%	0.0%	21.7%	21.7%	0.0%
Maximum Green (s)	42.0	42.0		42.0	42.0		8.0	8.0		8.0	8.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
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	Max	Max		Max	Max		Min	Min		Min	Min	
Act Effct Green (s)	42.0	42.0		42.0	42.0		6.6	6.6			6.6	
Actuated g/C Ratio	0.72	0.72		0.72	0.72		0.11	0.11			0.11	
v/c Ratio	0.32	0.50		0.15	0.52		0.11	0.05			0.36	
Control Delay	7.9	4.1		4.5	4.7		24.5	18.8			15.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	7.9	4.1		4.5	4.7		24.5	18.8			15.2	
LOS	A	A		A	A		C	B			B	
Approach Delay		4.3			4.7			22.6			15.2	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)	7	65		3	81		6	2			9	
Queue Length 95th (ft)	24	91		11	111		21	12			38	
Internal Link Dist (ft)		1044			1064			197			52	
Turn Bay Length (ft)	150			100			150					
Base Capacity (vph)	230	2604		254	2643		226	242			294	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.32	0.50		0.15	0.52		0.09	0.04			0.31	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 58.6

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 5.0

Intersection LOS: A

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: Veterans Mem Dvwy & Hunt Road

↑	ø2	→	ø4
13 s		47 s	
↓	ø6	←	ø8
13 s		47 s	

8: Orangeburg Road & Blaisdell Road

No-Build AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕	↗		↕	
Volume (vph)	9	755	107	605	1076	11	87	18	136	63	25	7
Satd. Flow (prot)	0	3472	0	0	3588	0	0	1711	1515	0	1933	0
Flt Permitted		0.913			0.556			0.693			0.731	
Satd. Flow (perm)	0	3173	0	0	2031	0	0	1235	1515	0	1459	0
Satd. Flow (RTOR)		28			2				149		6	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	958	0	0	1859	0	0	116	149	0	104	0
Turn Type	Perm			pm+pt			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	20.0	20.0		10.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	27.0	27.0		15.0	42.0		18.0	18.0	18.0	18.0	18.0	0.0
Total Split (%)	45.0%	45.0%	0.0%	25.0%	70.0%	0.0%	30.0%	30.0%	30.0%	30.0%	30.0%	0.0%
Yellow Time (s)	4.0	4.0		3.0	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	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)		21.0			36.0			12.0	12.0		12.0	
Actuated g/C Ratio		0.35			0.60			0.20	0.20		0.20	
v/c Ratio		0.85			1.63dl			0.47	0.35		0.35	
Control Delay		22.5			147.5			28.4	7.1		24.6	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		22.5			147.5			28.4	7.1		24.6	
LOS		C			F			C	A		C	
Approach Delay		22.5			147.5			16.4			24.6	
Approach LOS		C			F			B			C	
Queue Length 50th (ft)		166			~438			37	0		31	
Queue Length 95th (ft)		#269			#600			82	40		m69	
Internal Link Dist (ft)		1499			1245			437			1296	
Turn Bay Length (ft)									220			
Base Capacity (vph)		1129			1453			247	422		297	
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		0.85			1.28			0.47	0.35		0.35	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 150

Control Type: Pretimed

Maximum v/c Ratio: 1.28

Intersection Signal Delay: 95.0

Intersection LOS: F

Intersection Capacity Utilization 99.1%

ICU Level of Service F

Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 8: Orangeburg Road & Blaisdell Road

↕ ø2	↗ ø3	→ ø4
18 s	15 s	27 s
↕ ø6	↖ ø8	
18 s	42 s	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	902	50	68	1559	2	141	1	180	30	6	3
Satd. Flow (prot)	0	3628	0	1770	3539	0	0	1775	1636	0	3262	0
Flt Permitted		0.952		0.159				0.694			0.770	
Satd. Flow (perm)	0	3454	0	296	3539	0	0	1293	1636	0	2608	0
Satd. Flow (RTOR)									71		3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1036	0	74	1697	0	0	154	196	0	43	0
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		
Protected Phases		4		3	8			2	3		6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	28.0	28.0		21.0	28.0		26.0	26.0	21.0	26.0	26.0	
Total Split (s)	48.0	48.0	0.0	12.0	60.0	0.0	30.0	30.0	12.0	30.0	30.0	0.0
Total Split (%)	53.3%	53.3%	0.0%	13.3%	66.7%	0.0%	33.3%	33.3%	13.3%	33.3%	33.3%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	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	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Act Effect Green (s)		43.0		55.0	55.0			25.0	37.0		25.0	
Actuated g/C Ratio		0.48		0.61	0.61			0.28	0.41		0.28	
v/c Ratio		0.63		0.25	0.78			0.43	0.27		0.06	
Control Delay		19.7		11.7	21.7			31.2	12.2		23.0	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		19.7		11.7	21.7			31.2	12.2		23.0	
LOS		B		B	C			C	B		C	
Approach Delay		19.7			21.3			20.5			23.0	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)		222		17	418			72	44		8	
Queue Length 95th (ft)		287		m36	512			130	92		21	
Internal Link Dist (ft)		1034			1374			690			577	
Turn Bay Length (ft)				380					300			
Base Capacity (vph)		1650		296	2163			359	714		727	
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		0.63		0.25	0.78			0.43	0.27		0.06	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 75

Control Type: Pretimed

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 20.7

Intersection Capacity Utilization 79.4%

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: C

ICU Level of Service D

Splits and Phases: 9: Orangeburg Road & Edgewood Road

ø2	ø3	ø4
30 s	12 s	48 s
ø6	ø8	
30 s	60 s	

10: Orangeburg Rd & Dutch Hill Rd

No-Build AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	727	225	46	600	38	235	43	26	26	62	235
Satd. Flow (prot)	1847	3575	1599	1685	3455	0	1752	1844	1515	1787	1881	1546
Flt Permitted	0.274			0.221			0.713			0.726		
Satd. Flow (perm)	533	3575	1599	392	3455	0	1315	1844	1515	1366	1881	1546
Satd. Flow (RTOR)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	790	245	50	693	0	255	47	28	28	67	255
Turn Type	pm+pt		Perm	pm+pt			Perm		pm+ov	Perm		pm+ov
Protected Phases	7	4		3	8			2	3		6	7
Permitted Phases	4		4	8			2		2	6		6
Minimum Split (s)	8.5	23.5	23.5	8.5	23.5		23.5	23.5	8.5	23.5	23.5	8.5
Total Split (s)	17.0	38.0	38.0	17.0	38.0	0.0	35.0	35.0	17.0	35.0	35.0	17.0
Total Split (%)	18.9%	42.2%	42.2%	18.9%	42.2%	0.0%	38.9%	38.9%	18.9%	38.9%	38.9%	18.9%
Yellow Time (s)	3.0	2.5	2.5	3.0	2.5		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.5	2.0	2.0	1.5	2.0		1.0	1.0	1.5	1.0	1.0	1.5
Lost Time Adjst (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.0	4.0	4.5	4.0	4.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				Yes			Yes
Act Effect Green (s)	46.0	33.5	33.5	46.0	33.5		31.0	31.0	47.5	31.0	31.0	47.5
Actuated g/C Ratio	0.51	0.37	0.37	0.51	0.37		0.34	0.34	0.53	0.34	0.34	0.53
v/c Ratio	0.46	0.59	0.41	0.13	0.54		0.56	0.07	0.04	0.06	0.10	0.31
Control Delay	23.3	41.7	39.1	9.9	24.1		29.8	20.4	10.5	20.3	20.7	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	41.7	39.1	9.9	24.1		29.8	20.4	10.5	20.3	20.7	13.3
LOS	C	D	D	A	C		C	C	B	C	C	B
Approach Delay		38.1			23.1			26.8			15.3	
Approach LOS		D			C			C			B	
Queue Length 50th (ft)	101	248	144	12	160		116	18	7	11	26	77
Queue Length 95th (ft)	165	310	220	28	214		196	41	20	29	54	128
Internal Link Dist (ft)		360			712			436			401	
Turn Bay Length (ft)	280		205	250			300		800	135		
Base Capacity (vph)	455	1331	595	380	1286		453	635	800	471	648	816
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.59	0.41	0.13	0.54		0.56	0.07	0.04	0.06	0.10	0.31

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 1.5 (2%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 29.6

Intersection Capacity Utilization 58.9%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service B

Splits and Phases: 10: Orangeburg Rd & Dutch Hill Rd

		
ø2	ø3	ø4
35 s	17 s	38 s
		
ø6	ø7	ø8
35 s	17 s	38 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	628	27	44	582	39	34	161	59	67	121	67
Satd. Flow (prot)	0	3693	0	0	3532	0	0	2001	0	0	1991	0
Flt Permitted		0.688			0.852			0.932			0.867	
Satd. Flow (perm)	0	2558	0	0	3018	0	0	1878	0	0	1749	0
Satd. Flow (RTOR)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	781	0	0	679	0	0	259	0	0	259	0
Turn Type	Perm			Perm			Perm			Perm		
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		4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		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	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		29.5			29.5			25.4			25.4	
Actuated g/C Ratio		0.42			0.42			0.36			0.36	
v/c Ratio		0.72			0.53			0.38			0.41	
Control Delay		24.0			18.7			20.5			21.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.0			18.7			20.5			21.1	
LOS		C			B			C			C	
Approach Delay		24.0			18.7			20.5			21.1	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		123			96			71			72	
Queue Length 95th (ft)		#347			240			197			201	
Internal Link Dist (ft)		539			936			268			996	
Turn Bay Length (ft)												
Base Capacity (vph)		1078			1271			682			636	
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		0.72			0.53			0.38			0.41	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 70

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 21.4

Intersection Capacity Utilization 79.2%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service D

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

Queue shown is maximum after two cycles.

Splits and Phases: 11: Orangeburg Rd & Western Hwy

 ø2	 ø4	 ø9
30 s	35 s	25 s
 ø6	 ø8	
30 s	35 s	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	2	4	0	77	1	311	6	147	280	1
Satd. Flow (prot)	0	1668	0	0	1571	0	0	1981	0	0	1892	0
Flt Permitted		0.984			0.998			0.999			0.768	
Satd. Flow (perm)	0	1668	0	0	1571	0	0	1979	0	0	1478	0
Satd. Flow (RTOR)								2				
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	89	0	0	350	0	0	471	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							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		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		32.5	32.5		21.0	21.0		21.0	21.0	
Total Split (s)	10.0	10.0	0.0	20.0	20.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	26.7%	26.7%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.6			10.8			46.7			46.7	
Actuated g/C Ratio		0.11			0.16			0.67			0.67	
v/c Ratio		0.02			0.36			0.26			0.47	
Control Delay		29.3			31.5			11.5			15.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		29.3			31.5			11.5			15.4	
LOS		C			C			B			B	
Approach Delay		29.3			31.5			11.5			15.4	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		1			29			40			65	
Queue Length 95th (ft)		9			95			277			#505	
Internal Link Dist (ft)		23			443			1075			1225	
Turn Bay Length (ft)												
Base Capacity (vph)		183			384			1332			994	
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		0.02			0.23			0.26			0.47	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 69.5

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 15.5

Intersection Capacity Utilization 58.6%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service B

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

Queue shown is maximum after two cycles.

Splits and Phases: 12: Mountain View Ave & Western Hwy

 ø2	 ø4	 ø8
45 s	10 s	20 s
 ø6		
45 s		

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↱	↰	↱
Volume (vph)	147	42	106	98	14	38
Satd. Flow (prot)	1729	0	0	1756	1861	0
Flt Permitted				0.745	0.987	
Satd. Flow (perm)	1729	0	0	1341	1861	0
Satd. Flow (RTOR)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	201	0	0	217	55	0
Turn Type			Perm			
Protected Phases	4			8	2	
Permitted Phases			8			
Minimum Split (s)	23.0		23.0	23.0	22.0	
Total Split (s)	32.0	0.0	32.0	32.0	28.0	0.0
Total Split (%)	53.3%	0.0%	53.3%	53.3%	46.7%	0.0%
Yellow Time (s)	4.0		4.0	4.0	3.5	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	5.5	4.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effect Green (s)	26.0			26.0	22.5	
Actuated g/C Ratio	0.43			0.43	0.38	
v/c Ratio	0.27			0.37	0.08	
Control Delay	12.1			13.9	14.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	12.1			13.9	14.4	
LOS	B			B	B	
Approach Delay	12.1			13.9	14.4	
Approach LOS	B			B	B	
Queue Length 50th (ft)	44			50	14	
Queue Length 95th (ft)	84			98	m33	
Internal Link Dist (ft)	872			667	1397	
Turn Bay Length (ft)						
Base Capacity (vph)	749			581	698	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.27			0.37	0.08	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0.5 (1%), Referenced to phase 2:NBL and 6:, Start of Yellow

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 13.2

Intersection LOS: B

Intersection Capacity Utilization 39.2%

ICU Level of Service A

Analysis Period (min) 15

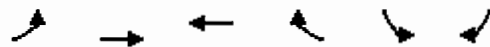
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: Convent Road & 3rd Ave

↖ ø2	→ ø4
28 s	32 s
	↖ ø8
	32 s



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Volume (veh/h)	15	103	69	301	339	33
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	17	116	78	338	381	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1305		
pX, platoon unblocked						
vC, conflicting volume	893	399	418			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	893	399	418			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	82	93			
cM capacity (veh/h)	291	650	1141			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	133	416	418			
Volume Left	17	78	0			
Volume Right	116	0	37			
cSH	562	1141	1700			
Volume to Capacity	0.24	0.07	0.25			
Queue Length 95th (ft)	23	5	0			
Control Delay (s)	13.4	2.1	0.0			
Lane LOS	B	A				
Approach Delay (s)	13.4	2.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		2.8				
Intersection Capacity Utilization		56.7%		ICU Level of Service		B
Analysis Period (min)		15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Volume (veh/h)	53	133	80	32	67	118
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	56	140	84	34	71	124
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		747				
pX, platoon unblocked						
vC, conflicting volume	118				353	101
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	118				353	101
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				89	87
cM capacity (veh/h)	1470				621	954
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	196	118	195			
Volume Left	56	0	71			
Volume Right	0	34	124			
cSH	1470	1700	799			
Volume to Capacity	0.04	0.07	0.24			
Queue Length 95th (ft)	3	0	24			
Control Delay (s)	2.4	0.0	11.0			
Lane LOS	A		B			
Approach Delay (s)	2.4	0.0	11.0			
Approach LOS			B			
Intersection Summary						
Average Delay			5.1			
Intersection Capacity Utilization		34.2%		ICU Level of Service		A
Analysis Period (min)		15				

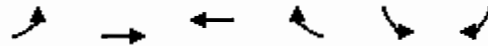
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	162	9	12	88	8	4	2	0	23	17	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	4	169	9	12	92	8	4	2	0	24	18	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					952							
pX, platoon unblocked												
vC, conflicting volume	100			178			319	307	173	304	307	96
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	100			178			319	307	173	304	307	96
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	100	96	97	99
cM capacity (veh/h)	1493			1398			610	600	870	641	600	961
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	182	112	6	49								
Volume Left	4	12	4	24								
Volume Right	9	8	0	7								
cSH	1493	1398	606	657								
Volume to Capacity	0.00	0.01	0.01	0.07								
Queue Length 95th (ft)	0	1	1	6								
Control Delay (s)	0.2	0.9	11.0	10.9								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.2	0.9	11.0	10.9								
Approach LOS			B	B								
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			21.4%		ICU Level of Service				A			
Analysis Period (min)			15									

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	150	149	36	77	58	20
Sign Control	Free			Free	Stop	
Grade	-10%			-3%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	156	155	38	80	60	21
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)					2	
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			156		311	156
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			156		311	156
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		91	98
cM capacity (veh/h)			1424		663	889
Direction, Lane #	EB 1	EB 2	WB 1	NB 1		
Volume Total	156	155	118	81		
Volume Left	0	0	38	60		
Volume Right	0	155	0	21		
cSH	1700	1700	1424	892		
Volume to Capacity	0.09	0.09	0.03	0.09		
Queue Length 95th (ft)	0	0	2	7		
Control Delay (s)	0.0	0.0	2.6	10.5		
Lane LOS			A	B		
Approach Delay (s)	0.0		2.6	10.5		
Approach LOS				B		
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			27.3%		ICU Level of Service	A
Analysis Period (min)			15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	28	28	13	94	241	58
Sign Control	Stop			Free	Free	
Grade	0%			-3%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	32	32	15	108	277	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	448	310	344			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	448	310	344			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	96	99			
cM capacity (veh/h)	561	730	1215			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	64	123	344			
Volume Left	32	15	0			
Volume Right	32	0	67			
cSH	634	1215	1700			
Volume to Capacity	0.10	0.01	0.20			
Queue Length 95th (ft)	8	1	0			
Control Delay (s)	11.3	1.1	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.3	1.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization		26.2%		ICU Level of Service		A
Analysis Period (min)		15				

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	20	33	55	28	40	19
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	23	38	62	32	45	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			60		198	41
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			60		198	41
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		94	98
cM capacity (veh/h)			1543		758	1029
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	60	94	67			
Volume Left	0	62	45			
Volume Right	38	0	22			
cSH	1700	1543	829			
Volume to Capacity	0.04	0.04	0.08			
Queue Length 95th (ft)	0	3	7			
Control Delay (s)	0.0	5.0	9.7			
Lane LOS		A	A			
Approach Delay (s)	0.0	5.0	9.7			
Approach LOS			A			
Intersection Summary						
Average Delay		5.1				
Intersection Capacity Utilization		21.2%	ICU Level of Service	A		
Analysis Period (min)		15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	17	17	11	56	36	12
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	19	19	12	63	40	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	75				101	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	75				101	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				95	99
cM capacity (veh/h)	1524				886	1026
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	38	75	54			
Volume Left	19	0	40			
Volume Right	0	63	13			
cSH	1524	1700	917			
Volume to Capacity	0.01	0.04	0.06			
Queue Length 95th (ft)	1	0	5			
Control Delay (s)	3.7	0.0	9.2			
Lane LOS	A		A			
Approach Delay (s)	3.7	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			3.8			
Intersection Capacity Utilization		18.5%		ICU Level of Service		A
Analysis Period (min)		15				



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			1	2	
Volume (veh/h)	58	18	2	72	17	10
Sign Control	Free			Free	Stop	
Grade	2%			0%	-2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	63	20	2	78	18	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			83		155	73
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			83		155	73
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1515		835	989
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	83	80	29			
Volume Left	0	2	18			
Volume Right	20	0	11			
cSH	1700	1515	886			
Volume to Capacity	0.05	0.00	0.03			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.2	9.2			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			15.4%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	75	29	64	88	46	72
Sign Control	Stop		Free			Free
Grade	-1%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	32	70	96	50	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	296	117			165	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	296	117			165	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	97			96	
cM capacity (veh/h)	671	935			1413	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	113	165	128			
Volume Left	82	0	50			
Volume Right	32	96	0			
cSH	728	1700	1413			
Volume to Capacity	0.16	0.10	0.04			
Queue Length 95th (ft)	14	0	3			
Control Delay (s)	10.8	0.0	3.2			
Lane LOS	B		A			
Approach Delay (s)	10.8	0.0	3.2			
Approach LOS	B					
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		31.0%		ICU Level of Service		A
Analysis Period (min)		15				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	157	70	4	69	4	34	20	6	3	28	12
Sign Control		Free			Free			Stop			Stop	
Grade		-5%			0%			2%			2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	171	76	4	75	4	37	22	7	3	30	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	79			247			329	303	209	318	339	77
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	79			247			329	303	209	318	339	77
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			94	96	99	99	95	99
cM capacity (veh/h)	1519			1319			588	606	832	609	579	984
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	250	84	65	47								
Volume Left	3	4	37	3								
Volume Right	76	4	7	13								
cSH	1519	1319	612	657								
Volume to Capacity	0.00	0.00	0.11	0.07								
Queue Length 95th (ft)	0	0	9	6								
Control Delay (s)	0.1	0.4	11.6	10.9								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.1	0.4	11.6	10.9								
Approach LOS			B	B								
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			30.1%	ICU Level of Service					A			
Analysis Period (min)			15									

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations												
Volume (vph)	11	349	40	202	638	84	48	128	89	61	141	21
Satd. Flow (prot)	0	1761	0	0	2102	0	0	1949	0	0	1833	0
Flt Permitted		0.975			0.732			0.907			0.846	
Satd. Flow (perm)	0	1719	0	0	1556	0	0	1784	0	0	1571	0
Satd. Flow (RTOR)								45			9	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	440	0	0	1015	0	0	292	0	0	245	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	21.5	21.5		21.5	21.5		21.5	21.5		21.5	21.5	
Total Split (s)	35.0	35.0		35.0	35.0		35.0	35.0		35.0	35.0	
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
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	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Act Effect Green (s)		30.0			30.0			30.0			30.0	
Actuated g/C Ratio		0.43			0.43			0.43			0.43	
v/c Ratio		0.60			1.52			0.37			0.36	
Control Delay		19.6			259.5			13.0			14.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		19.6			259.5			13.0			14.9	
LOS		B			F			B			B	
Approach Delay		19.6			259.5			13.0			14.9	
Approach LOS		B			F			B			B	
Queue Length 50th (ft)		140			~636			68			66	
Queue Length 95th (ft)		228			m#837			123			118	
Internal Link Dist (ft)		240			1082			384			289	
Turn Bay Length (ft)												
Base Capacity (vph)		737			667			790			678	
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		0.60			1.52			0.37			0.36	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 29 (41%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 1.52

Intersection Signal Delay: 140.3

Intersection Capacity Utilization 102.8%

Intersection LOS: F

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

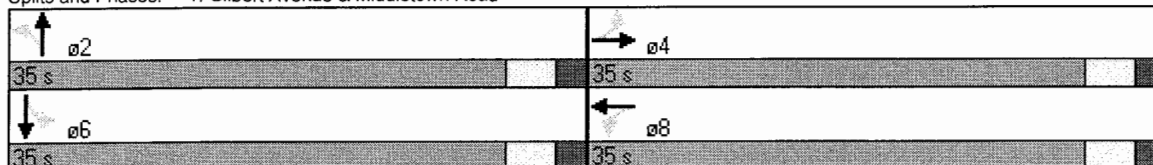
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Gilbert Avenue & Middletown Road





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↗	↖	↗	↖	
Volume (vph)	18	482	904	488	210	20
Satd. Flow (prot)	0	1833	1956	1607	1818	0
Flt Permitted		0.955			0.956	
Satd. Flow (perm)	0	1754	1956	1607	1818	0
Satd. Flow (RTOR)				530	6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	544	983	530	250	0
Turn Type	Perm			Perm		
Protected Phases		4	8		6	
Permitted Phases	4			8		
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	
Total Split (s)	53.0	53.0	53.0	53.0	17.0	0.0
Total Split (%)	75.7%	75.7%	75.7%	75.7%	24.3%	0.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	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
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effect Green (s)		47.0	47.0	47.0	11.0	
Actuated g/C Ratio		0.67	0.67	0.67	0.16	
v/c Ratio		0.46	0.75	0.42	0.86	
Control Delay		15.1	12.2	1.6	57.7	
Queue Delay		0.0	3.8	0.2	0.0	
Total Delay		15.1	16.0	1.8	57.7	
LOS		B	B	A	E	
Approach Delay		15.1	11.0		57.7	
Approach LOS		B	B		E	
Queue Length 50th (ft)		174	234	0	104	
Queue Length 95th (ft)		281	382	26	#228	
Internal Link Dist (ft)		1082	397		512	
Turn Bay Length (ft)						
Base Capacity (vph)		1178	1313	1253	291	
Starvation Cap Reductn		0	243	192	0	
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.46	0.92	0.50	0.86	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Yellow

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 17.0

Intersection Capacity Utilization 70.4%

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Intersection LOS: B

ICU Level of Service C

Splits and Phases: 21: Gilbert Avenue & Old Middletown Road

	→	ø4	
		53 s	
	←	ø8	
		53 s	
←	ø6	17 s	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	64	628	1349	117	22	30
Satd. Flow (prot)	1865	3610	3541	0	1553	1389
Flt Permitted	0.103				0.950	
Satd. Flow (perm)	202	3610	3541	0	1553	1389
Satd. Flow (RTOR)			13			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	67	661	1543	0	23	32
Turn Type	pm+pt					Prot
Protected Phases	1	6	2		8	8
Permitted Phases	6					
Detector Phase	1	6	2		8	8
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	8.0	22.0	22.0		23.0	23.0
Total Split (s)	14.0	42.0	28.0	0.0	29.0	29.0
Total Split (%)	19.7%	59.2%	39.4%	0.0%	40.8%	40.8%
Yellow Time (s)	3.5	3.0	3.0		4.0	4.0
All-Red Time (s)	0.0	3.0	3.0		3.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.5	6.0	6.0	4.0	7.0	7.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Max	Max		None	None
Act Effct Green (s)	43.8	43.8	37.8		6.8	6.8
Actuated g/C Ratio	0.78	0.78	0.68		0.12	0.12
v/c Ratio	0.20	0.23	0.64		0.12	0.19
Control Delay	4.2	3.7	13.9		23.1	24.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	4.2	3.7	13.9		23.1	24.5
LOS	A	A	B		C	C
Approach Delay		3.7	13.9		23.9	
Approach LOS		A	B		C	
Queue Length 50th (ft)	5	40	230		7	10
Queue Length 95th (ft)	16	68	#421		24	30
Internal Link Dist (ft)		397	404		149	
Turn Bay Length (ft)	85					80
Base Capacity (vph)	470	2820	2396		610	546
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	0.14	0.23	0.64		0.04	0.06

Intersection Summary

Cycle Length: 71

Actuated Cycle Length: 56

Natural Cycle: 65

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 11.0

Intersection Capacity Utilization 62.1%

Analysis Period (min) 15

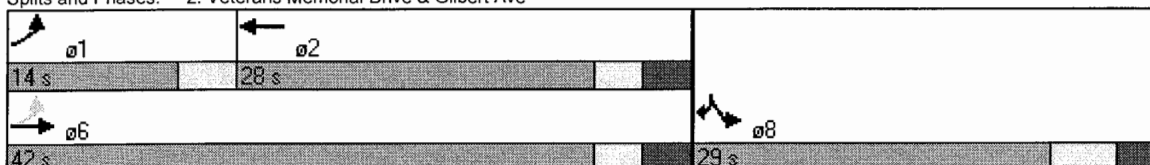
Intersection LOS: B

ICU Level of Service B

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

Queue shown is maximum after two cycles.

Splits and Phases: 2: Veterans Memorial Drive & Gilbert Ave



	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗			↗	↗		↗			↗	
Volume (vph)	411	0	94	52	0	7	16	1008	21	22	578	50
Satd. Flow (prot)	0	1939	0	0	1888	1794	0	3643	0	0	3455	0
Flt Permitted		0.726			0.725			0.940			0.894	
Satd. Flow (perm)	0	1465	0	0	1441	1794	0	3427	0	0	3095	0
Satd. Flow (RTOR)		17				8		5			20	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	568	0	0	58	8	0	1175	0	0	730	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	8	2	2		6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0		23.0	23.0	23.0	20.0	20.0		20.0	20.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	26.0	44.0	44.0	0.0	44.0	44.0	0.0
Total Split (%)	37.1%	37.1%	0.0%	37.1%	37.1%	37.1%	62.9%	62.9%	0.0%	62.9%	62.9%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.5	3.5		3.5	3.5	
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	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.5	4.5	4.0	4.5	4.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	Max	Max		Max	Max	
Act Effect Green (s)		22.0			22.0	22.0		39.5			39.5	
Actuated g/C Ratio		0.31			0.31	0.31		0.56			0.56	
v/c Ratio		1.20			0.13	0.01		0.61			0.42	
Control Delay		135.7			18.2	10.1		11.7			9.3	
Queue Delay		0.0			0.0	0.0		0.0			0.0	
Total Delay		135.7			18.2	10.1		11.7			9.3	
LOS		F			B	B		B			A	
Approach Delay		135.7			17.2			11.7			9.3	
Approach LOS		F			B			B			A	
Queue Length 50th (ft)		~302			18	0		159			82	
Queue Length 95th (ft)		#479			42	8		212			116	
Internal Link Dist (ft)		149			127			152			119	
Turn Bay Length (ft)												
Base Capacity (vph)		472			453	569		1936			1755	
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		1.20			0.13	0.01		0.61			0.42	

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 70

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.20

Intersection Signal Delay: 38.9

Intersection Capacity Utilization 82.1%

Analysis Period (min) 15

Intersection LOS: D

ICU Level of Service E

~ 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.

Splits and Phases: 3: Blue Hill Plaza West & Veterans Mem Dvwy

↗	ø2	↗	ø4
44 s		26 s	
↘	ø6	↘	ø8
44 s		26 s	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	31	591	48	78	736	55	101	0	343	44	2	46
Satd. Flow (prot)	1770	3663	1639	1774	3399	0	0	1823	1794	0	1574	0
Flt Permitted	0.272			0.346				0.735			0.810	
Satd. Flow (perm)	507	3663	1639	646	3399	0	0	1410	1794	0	1305	0
Satd. Flow (RTOR)			56		11				209		53	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	36	687	56	91	920	0	0	117	399	0	106	0
Turn Type	pm+pt		Perm	pm+pt			custom		custom	custom		
Protected Phases	5	2		1	6							
Permitted Phases	2		2	6	6		4	4	4	4	4	
Detector Phase	5	2	2	1	6		4	4	4	4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	8.5	20.0	20.0	8.5	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	8.0	39.0	39.0	8.0	39.0	0.0	37.0	37.0	37.0	37.0	37.0	0.0
Total Split (%)	9.5%	46.4%	46.4%	9.5%	46.4%	0.0%	44.0%	44.0%	44.0%	44.0%	44.0%	0.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	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	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	Max	Max	None	Max		None	None	None	None	None	
Act Effect Green (s)	37.8	35.1	35.1	39.6	38.4			13.5	13.5		13.5	
Actuated g/C Ratio	0.59	0.55	0.55	0.62	0.60			0.21	0.21		0.21	
v/c Ratio	0.10	0.34	0.06	0.20	0.45			0.39	0.73		0.33	
Control Delay	6.5	10.2	3.6	6.8	9.9			25.5	19.6		14.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	
Total Delay	6.5	10.2	3.6	6.8	9.9			25.5	19.6		14.9	
LOS	A	B	A	A	A			C	B		B	
Approach Delay		9.6			9.6			20.9			14.9	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)	4	76	0	11	76			40	67		18	
Queue Length 95th (ft)	17	137	16	35	197			77	137		50	
Internal Link Dist (ft)		221			2699			458			376	
Turn Bay Length (ft)	85		230	400								
Base Capacity (vph)	370	2014	926	463	2045			730	1030		701	
Starvation Cap Reductn	0	0	0	0	0			0	0		0	
Spillback Cap Reductn	0	0	0	0	0			0	0		0	
Storage Cap Reductn	0	0	0	0	0			0	0		0	
Reduced v/c Ratio	0.10	0.34	0.06	0.20	0.45			0.16	0.39		0.15	

Intersection Summary

Cycle Length: 84

Actuated Cycle Length: 63.9

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 12.2

Intersection Capacity Utilization 54.2%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 4: S Veterans Mem Dvwy & Blue Hill Plaza East

		
ø1	ø2	ø4
8 s	39 s	37 s
		
ø5	ø6	
8 s	39 s	

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↕↕		↖	↕↕	↖	↗
Volume (vph)	917	62	517	732	138	384
Satd. Flow (prot)	3729	0	1823	3645	1752	1567
Flt Permitted			0.108		0.950	
Satd. Flow (perm)	3729	0	207	3645	1752	1567
Satd. Flow (RTOR)	8					
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1100	0	581	822	155	431
Turn Type			pm+pt			Prot
Protected Phases	4		3	8	2	2
Permitted Phases			8			
Minimum Split (s)	20.0		9.5	21.0	21.0	21.0
Total Split (s)	37.0	0.0	21.0	58.0	32.0	32.0
Total Split (%)	41.1%	0.0%	23.3%	64.4%	35.6%	35.6%
Yellow Time (s)	3.5		3.5	3.5	3.0	3.0
All-Red Time (s)	2.0		2.0	2.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	4.0	5.5	5.5	4.0	4.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Act Effct Green (s)	31.5		52.5	52.5	28.0	28.0
Actuated g/C Ratio	0.35		0.58	0.58	0.31	0.31
v/c Ratio	0.84		1.46	0.39	0.28	0.88
Control Delay	33.9		246.6	10.8	25.2	51.3
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	33.9		246.6	10.8	25.2	51.3
LOS	C		F	B	C	D
Approach Delay	33.9			108.4	44.4	
Approach LOS	C			F	D	
Queue Length 50th (ft)	296		~408	122	66	231
Queue Length 95th (ft)	374		#602	158	116	#397
Internal Link Dist (ft)	2699			840	354	
Turn Bay Length (ft)			230			85
Base Capacity (vph)	1310		399	2126	545	488
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	0.84		1.46	0.39	0.28	0.88

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBL and 6:, Start of Yellow

Natural Cycle: 100

Control Type: Pretimed

Maximum v/c Ratio: 1.46

Intersection Signal Delay: 69.7

Intersection Capacity Utilization 76.1%

Analysis Period (min) 15

Intersection LOS: E

ICU Level of Service D

~ Volume exceeds capacity, queue is theoretically infinite.

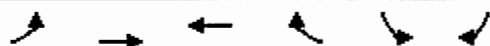
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: S Veterans Mem Dvwy & Blue Hill South

↖ ø2	→ ø4	↗ ø3
32 s	37 s	21 s
	↖ ø8	
	58 s	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑	↑
Volume (vph)	57	1273	1218	252	173	41
Satd. Flow (prot)	0	3686	3413	0	1668	1652
Flt Permitted		0.778			0.950	
Satd. Flow (perm)	0	2874	3413	0	1668	1652
Satd. Flow (RTOR)			77			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1415	1564	0	184	44
Turn Type	Perm					Prot
Protected Phases		4	8		6	6
Permitted Phases	4					
Detector Phase	4	4	8		6	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	22.0	22.0	22.0		10.0	10.0
Total Split (s)	33.0	33.0	33.0	0.0	17.0	17.0
Total Split (%)	66.0%	66.0%	66.0%	0.0%	34.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	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
Total Lost Time (s)	5.5	5.5	5.5	4.0	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Max	Max	Max		None	None
Act Effct Green (s)		31.7	31.7		9.7	9.7
Actuated g/C Ratio		0.65	0.65		0.20	0.20
v/c Ratio		0.76	0.70		0.56	0.13
Control Delay		13.2	10.0		24.3	16.6
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		13.2	10.0		24.3	16.6
LOS		B	A		C	B
Approach Delay		13.2	10.0		22.8	
Approach LOS		B	A		C	
Queue Length 50th (ft)		157	152		47	10
Queue Length 95th (ft)		#321	245		95	30
Internal Link Dist (ft)		382	1044		526	
Turn Bay Length (ft)					165	
Base Capacity (vph)		1865	2241		393	389
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		0.76	0.70		0.47	0.11

Intersection Summary

Cycle Length: 50

Actuated Cycle Length: 48.8

Natural Cycle: 55

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 12.3

Intersection Capacity Utilization 95.9%

Analysis Period (min) 15

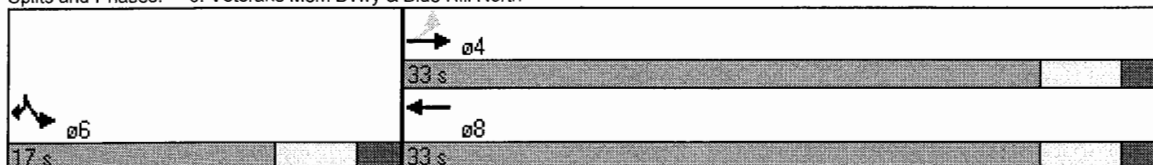
Intersection LOS: B

ICU Level of Service F

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

Queue shown is maximum after two cycles.

Splits and Phases: 6: Veterans Mem Dvwy & Blue Hill North



	←	→	↙	↘	←	↙	↘	↑	↙	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↙↘		↙	↙↘		↙	↑			↙↘	
Volume (vph)	123	1051	322	60	1159	48	222	1	34	56	14	134
Satd. Flow (prot)	1787	3564	0	1787	3672	0	1787	1607	0	0	1896	0
Flt Permitted	0.152			0.114			0.585				0.903	
Satd. Flow (perm)	286	3564	0	214	3672	0	1101	1607	0	0	1737	0
Satd. Flow (RTOR)		116			12			37			63	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	1476	0	65	1298	0	239	38	0	0	219	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0
Total Split (%)	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%
Maximum Green (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
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	Max	Max		Max	Max		Min	Min		Min	Min	
Act Effct Green (s)	35.0	35.0		35.0	35.0		14.5	14.5			14.5	
Actuated g/C Ratio	0.59	0.59		0.59	0.59		0.24	0.24			0.24	
v/c Ratio	0.79	0.69		0.52	0.60		0.89	0.09			0.46	
Control Delay	47.4	9.9		27.2	9.3		59.4	7.7			17.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	47.4	9.9		27.2	9.3		59.4	7.7			17.1	
LOS	D	A		C	A		E	A			B	
Approach Delay		13.0			10.1			52.3			17.1	
Approach LOS		B			B			D			B	
Queue Length 50th (ft)	32	156		12	137		83	0			46	
Queue Length 95th (ft)	#130	223		#69	191		#198	19			101	
Internal Link Dist (ft)		1044			1064			197			52	
Turn Bay Length (ft)	150			100			150					
Base Capacity (vph)	168	2145		126	2166		277	433			486	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.79	0.69		0.52	0.60		0.86	0.09			0.45	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 59.5

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 15.3

Intersection LOS: B

Intersection Capacity Utilization 83.7%

ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: Veterans Mem Dvwy & Hunt Road

↑ ø2	→ ø4
20 s	40 s
↓ ø6	← ø8
20 s	40 s

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations		↕↕			↕↕			↕	↗		↕	
Volume (vph)	4	973	153	197	1045	12	213	33	629	138	47	9
Satd. Flow (prot)	0	3468	0	0	3624	0	0	1708	1515	0	1936	0
Flt Permitted		0.949			0.530			0.677			0.501	
Satd. Flow (perm)	0	3292	0	0	1936	0	0	1207	1515	0	1004	0
Satd. Flow (RTOR)		32			3				363		4	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1241	0	0	1377	0	0	270	691	0	214	0
Turn Type	Perm			pm+pt			Perm		Perm	Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	20.0	20.0		10.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	27.0	27.0		15.0	42.0		18.0	18.0	18.0	18.0	18.0	
Total Split (%)	45.0%	45.0%	0.0%	25.0%	70.0%	0.0%	30.0%	30.0%	30.0%	30.0%	30.0%	0.0%
Yellow Time (s)	4.0	4.0		3.0	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	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	5.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Act Effect Green (s)		21.0			36.0			12.0	12.0		12.0	
Actuated g/C Ratio		0.35			0.60			0.20	0.20		0.20	
v/c Ratio		1.06			0.97			1.12	1.17		1.05	
Control Delay		53.5			30.1			122.8	107.3		106.1	
Queue Delay		0.0			0.0			0.0	0.0		0.0	
Total Delay		53.5			30.1			122.8	107.3		106.1	
LOS		D			C			F	F		F	
Approach Delay		53.5			30.1			111.7			106.1	
Approach LOS		D			C			F			F	
Queue Length 50th (ft)		~276			145			~116	~189		~86	
Queue Length 95th (ft)		m#296			#303			#242	#376		m#202	
Internal Link Dist (ft)		1499			1245			437			1296	
Turn Bay Length (ft)									220			
Base Capacity (vph)		1173			1416			241	593		204	
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		1.06			0.97			1.12	1.17		1.05	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 56 (93%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow

Natural Cycle: 130

Control Type: Preempted

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 62.7

Intersection Capacity Utilization 99.2%

Intersection LOS: E

ICU Level of Service F

Analysis Period (min) 15

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Orangeburg Road & Blaisdell Road

↕	ø2	↗	ø3	↕	ø4
18 s		15 s		27 s	
↕	ø6	↗	ø8		
18 s		42 s			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕	↕↕			↕	↕		↕↕	
Volume (vph)	5	1629	107	341	1128	4	152	4	210	24	3	5
Satd. Flow (prot)	0	3624	0	1770	3539	0	0	1775	1636	0	3222	0
Flt Permitted		0.951		0.105				0.705			0.782	
Satd. Flow (perm)	0	3447	0	196	3539	0	0	1313	1636	0	2617	0
Satd. Flow (RTOR)									2		5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1913	0	375	1244	0	0	171	231	0	34	0
Turn Type	Perm			pm+pt			Perm		pm+ov	Perm		
Protected Phases		4		3	8			2	3		6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	28.0	28.0		21.0	28.0		26.0	26.0	21.0	26.0	26.0	
Total Split (s)	40.0	40.0		20.0	60.0		30.0	30.0	20.0	30.0	30.0	
Total Split (%)	44.4%	44.4%	0.0%	22.2%	66.7%	0.0%	33.3%	33.3%	22.2%	33.3%	33.3%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		0.0	2.0		2.0	2.0	0.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	3.0	5.0	4.0	5.0	5.0	3.0	5.0	5.0	4.0
Lead/Lag	Lag	Lag		Lead					Lead			
Lead-Lag Optimize?	Yes	Yes		Yes					Yes			
Act Effct Green (s)		35.0		57.0	55.0			25.0	47.0		25.0	
Actuated g/C Ratio		0.39		0.63	0.61			0.28	0.52		0.28	
v/c Ratio		1.43		0.89	0.58			0.47	0.27		0.05	
Control Delay		222.4		55.4	9.1			32.1	12.9		21.5	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		222.4		55.4	9.1			32.1	12.9		21.5	
LOS		F		E	A			C	B		C	
Approach Delay		222.4			19.8			21.1			21.5	
Approach LOS		F			B			C			C	
Queue Length 50th (ft)		~781		181	140			81	68		6	
Queue Length 95th (ft)		#918		m#306	171			143	114		17	
Internal Link Dist (ft)		1034			1374			690			577	
Turn Bay Length (ft)				380					300			
Base Capacity (vph)		1341		421	2163			365	855		731	
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		1.43		0.89	0.58			0.47	0.27		0.05	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 25 (28%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 120

Control Type: Pretimed

Maximum v/c Ratio: 1.43

Intersection Signal Delay: 117.6

Intersection Capacity Utilization 107.7%

Analysis Period (min) 15

Intersection LOS: F

ICU Level of Service G

~ 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.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Orangeburg Road & Edgewood Road

↕ 2	↕ 3	↕ 4
30 s	20 s	40 s
↕ 6	↕ 8	
30 s	60 s	

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	275	897	252	33	858	40	247	102	40	42	73	187
Satd. Flow (prot)	1847	3575	1599	1685	3462	0	1752	1844	1515	1787	1881	1546
Flt Permitted	0.136			0.136			0.706			0.685		
Satd. Flow (perm)	264	3575	1599	241	3462	0	1302	1844	1515	1289	1881	1546
Satd. Flow (RTOR)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	299	975	274	36	976	0	268	111	43	46	79	203
Turn Type	pm+pt		Perm	pm+pt			Perm		pm+ov	Perm		pm+ov
Protected Phases	7	4		3	8			2	3		6	7
Permitted Phases	4		4	8			2		2	6		6
Minimum Split (s)	8.0	23.5	23.5	8.0	23.5		23.5	23.5	8.0	23.5	23.5	8.0
Total Split (s)	17.0	38.0	38.0	17.0	38.0	0.0	35.0	35.0	17.0	35.0	35.0	17.0
Total Split (%)	18.9%	42.2%	42.2%	18.9%	42.2%	0.0%	38.9%	38.9%	18.9%	38.9%	38.9%	18.9%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.0	2.0	2.0	0.0	2.0		2.0	2.0	0.0	2.0	2.0	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	3.0	5.0	4.0	5.0	5.0	3.0	5.0	5.0	3.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag				Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes				Yes			Yes
Act Effect Green (s)	49.0	33.0	33.0	49.0	33.0		30.0	30.0	49.0	30.0	30.0	49.0
Actuated g/C Ratio	0.54	0.37	0.37	0.54	0.37		0.33	0.33	0.54	0.33	0.33	0.54
v/c Ratio	0.77	0.74	0.47	0.10	0.77		0.62	0.18	0.05	0.11	0.13	0.24
Control Delay	20.8	14.8	11.3	9.0	30.1		32.6	22.3	9.9	21.7	21.6	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	14.8	11.3	9.0	30.1		32.6	22.3	9.9	21.7	21.6	11.7
LOS	C	B	B	A	C		C		A	C	C	B
Approach Delay		15.4			29.3			27.6			15.5	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	53	295	108	8	253		127	44	11	18	31	57
Queue Length 95th (ft)	m34	m176	m76	21	330		212	84	26	43	63	97
Internal Link Dist (ft)		360			712			436			401	
Turn Bay Length (ft)	280		205	250			300			135		
Base Capacity (vph)	390	1311	586	356	1269		434	615	825	430	627	842
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.74	0.47	0.10	0.77		0.62	0.18	0.05	0.11	0.13	0.24

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0.5 (1%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 21.2

Intersection Capacity Utilization 72.2%

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: C

ICU Level of Service C

Splits and Phases: 10: Orangeburg Rd & Dutch Hill Rd

		
35 s	17 s	38 s
		
35 s	17 s	38 s

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	778	57	54	759	54	72	195	52	76	172	100
Satd. Flow (prot)	0	3685	0	0	3532	0	0	2011	0	0	1986	0
Flt Permitted		0.603			0.711			0.810			0.827	
Satd. Flow (perm)	0	2233	0	0	2519	0	0	1647	0	0	1661	0
Satd. Flow (RTOR)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1048	0	0	975	0	0	358	0	0	390	0
Turn Type	Perm			Perm			Perm			Perm		
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		4.0	4.0		4.0	4.0	
Minimum Split (s)	27.0	27.0		27.0	27.0		27.0	27.0		27.0	27.0	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	38.9%	38.9%	0.0%	33.3%	33.3%	0.0%	33.3%	33.3%	0.0%
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		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	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	6.0	6.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		29.5			29.5			25.4			25.4	
Actuated g/C Ratio		0.42			0.42			0.36			0.36	
v/c Ratio		1.11			0.92			0.60			0.65	
Control Delay		88.9			36.0			25.7			27.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		88.9			36.0			25.7			27.2	
LOS		F			D			C			C	
Approach Delay		88.9			36.0			25.7			27.2	
Approach LOS		F			D			C			C	
Queue Length 50th (ft)		~245			174			108			120	
Queue Length 95th (ft)		#549			#472			#317			#358	
Internal Link Dist (ft)		539			936			268			996	
Turn Bay Length (ft)												
Base Capacity (vph)		941			1062			598			603	
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		1.11			0.92			0.60			0.65	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 70

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 53.5

Intersection Capacity Utilization 90.2%

Analysis Period (min) 15

Intersection LOS: D

ICU Level of Service E

~ 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.

Splits and Phases: 11: Orangeburg Rd & Western Hwy

 Ø2	 Ø4	 Ø9
30 s	35 s	25 s
 Ø6	 Ø8	
30 s	35 s	

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1	0	6	0	153	0	397	10	83	333	0
Satd. Flow (prot)	0	1863	0	0	1569	0	0	1981	0	0	1906	0
Flt Permitted					0.998						0.795	
Satd. Flow (perm)	0	1863	0	0	1569	0	0	1981	0	0	1530	0
Satd. Flow (RTOR)								3				
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	187	0	0	479	0	0	490	0
Turn Type	Split			Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases							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		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.0	10.0		32.5	32.5		21.0	21.0		21.0	21.0	
Total Split (s)	10.0	10.0	0.0	20.0	20.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	13.3%	13.3%	0.0%	26.7%	26.7%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0	5.5	5.5	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Act Effct Green (s)		7.7			14.0			41.7			41.7	
Actuated g/C Ratio		0.11			0.20			0.58			0.58	
v/c Ratio		0.00			0.61			0.41			0.55	
Control Delay		30.0			36.6			14.2			17.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		30.0			36.6			14.2			17.7	
LOS		C			D			B			B	
Approach Delay		30.0			36.6			14.2			17.7	
Approach LOS		C			D			B			B	
Queue Length 50th (ft)		0			66			77			89	
Queue Length 95th (ft)		5			174			367			#469	
Internal Link Dist (ft)		23			443			1075			1225	
Turn Bay Length (ft)												
Base Capacity (vph)		200			371			1156			892	
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		0.01			0.50			0.41			0.55	

Intersection Summary

Cycle Length: 75

Actuated Cycle Length: 71.5

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 19.3

Intersection Capacity Utilization 72.5%

Analysis Period (min) 15

Intersection LOS: B

ICU Level of Service C

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

Queue shown is maximum after two cycles.

Splits and Phases: 12: Mountainview Ave & Western Hwy

		
ø2	ø4	ø8
45 s	10 s	20 s
		
ø6		
45 s		

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↰			↰	↰	
Volume (vph)	130	35	89	195	44	106
Satd. Flow (prot)	1733	0	0	1774	1865	0
Flt Permitted				0.841	0.986	
Satd. Flow (perm)	1733	0	0	1514	1865	0
Satd. Flow (RTOR)						
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	0	0	312	164	0
Turn Type			Perm			
Protected Phases	4			8	2	
Permitted Phases			8			
Minimum Split (s)	23.0		23.0	23.0	22.0	
Total Split (s)	32.0	0.0	32.0	32.0	28.0	0.0
Total Split (%)	53.3%	0.0%	53.3%	53.3%	46.7%	0.0%
Yellow Time (s)	4.0		4.0	4.0	3.5	
All-Red Time (s)	2.0		2.0	2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	4.0	6.0	6.0	5.5	4.0
Lead/Lag						
Lead-Lag Optimize?						
Act Effect Green (s)	26.0			26.0	22.5	
Actuated g/C Ratio	0.43			0.43	0.38	
v/c Ratio	0.24			0.48	0.23	
Control Delay	11.9			15.2	14.5	
Queue Delay	0.0			0.0	0.0	
Total Delay	11.9			15.2	14.5	
LOS	B			B	B	
Approach Delay	11.9			15.2	14.5	
Approach LOS	B			B	B	
Queue Length 50th (ft)	39			77	41	
Queue Length 95th (ft)	76			138	m78	
Internal Link Dist (ft)	872			667	1397	
Turn Bay Length (ft)						
Base Capacity (vph)	751			656	699	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.24			0.48	0.23	

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0.5 (1%), Referenced to phase 2:NBL and 6:, Start of Yellow

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 14.1

Intersection Capacity Utilization 47.7%

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Intersection LOS: B

ICU Level of Service A

Splits and Phases: 15: Convent Road & 3rd Ave

↖ ø2	→ ø4
28 s	32 s
	↖ ø8
	32 s



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Volume (veh/h)	20	107	161	398	296	28
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	22	120	181	447	333	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				1305		
pX, platoon unblocked	0.93					
vC, conflicting volume	1157	348	364			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1131	348	364			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	83	85			
cM capacity (veh/h)	177	695	1195			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	143	628	364			
Volume Left	22	181	0			
Volume Right	120	0	31			
cSH	476	1195	1700			
Volume to Capacity	0.30	0.15	0.21			
Queue Length 95th (ft)	31	13	0			
Control Delay (s)	15.8	3.7	0.0			
Lane LOS	C	A				
Approach Delay (s)	15.8	3.7	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay		4.0				
Intersection Capacity Utilization		64.8%		ICU Level of Service		C
Analysis Period (min)		15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Volume (veh/h)	123	112	176	97	72	88
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	140	127	200	110	82	100
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		747				
pX, platoon unblocked						
vC, conflicting volume	310				662	255
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310				662	255
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	89				78	87
cM capacity (veh/h)	1250				379	784

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	267	310	182
Volume Left	140	0	82
Volume Right	0	110	100
cSH	1250	1700	529
Volume to Capacity	0.11	0.18	0.34
Queue Length 95th (ft)	9	0	38
Control Delay (s)	4.8	0.0	15.3
Lane LOS	A		C
Approach Delay (s)	4.8	0.0	15.3
Approach LOS			C

Intersection Summary			
Average Delay		5.4	
Intersection Capacity Utilization		47.3%	ICU Level of Service
Analysis Period (min)		15	A

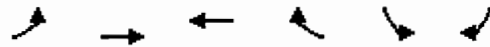
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	119	8	2	200	22	7	8	7	25	4	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	0	142	10	2	238	26	8	10	8	30	5	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					952							
pX, platoon unblocked												
vC, conflicting volume	264			151			413	415	146	415	407	251
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	264			151			413	415	146	415	407	251
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	98	99	94	99	99
cM capacity (veh/h)	1300			1430			539	527	901	534	532	787
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	151	267	26	43								
Volume Left	0	2	8	30								
Volume Right	10	26	8	8								
cSH	1300	1430	612	570								
Volume to Capacity	0.00	0.00	0.04	0.08								
Queue Length 95th (ft)	0	0	3	6								
Control Delay (s)	0.0	0.1	11.1	11.8								
Lane LOS		A	B	B								
Approach Delay (s)	0.0	0.1	11.1	11.8								
Approach LOS			B	B								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			24.2%		ICU Level of Service				A			
Analysis Period (min)			15									

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗		↖	↖	↗
Volume (veh/h)	102	186	34	201	240	43
Sign Control	Free			Free	Stop	
Grade	-10%			-3%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	112	204	37	221	264	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)					2	
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			112		408	112
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			112		408	112
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		55	95
cM capacity (veh/h)			1478		584	941
Direction, Lane #	EB 1	EB 2	WB 1	NB 1		
Volume Total	112	204	258	311		
Volume Left	0	0	37	264		
Volume Right	0	204	0	47		
cSH	1700	1700	1478	689		
Volume to Capacity	0.07	0.12	0.03	0.45		
Queue Length 95th (ft)	0	0	2	59		
Control Delay (s)	0.0	0.0	1.3	15.0		
Lane LOS			A	C		
Approach Delay (s)	0.0		1.3	15.0		
Approach LOS				C		
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			39.1%	ICU Level of Service		A
Analysis Period (min)			15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			W	W	
Volume (veh/h)	91	45	31	389	223	54
Sign Control	Stop			Free	Free	
Grade	0%			-3%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	100	49	34	427	245	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	770	275	304			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	770	275	304			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	72	94	97			
cM capacity (veh/h)	359	764	1256			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	149	462	304			
Volume Left	100	34	0			
Volume Right	49	0	59			
cSH	435	1256	1700			
Volume to Capacity	0.34	0.03	0.18			
Queue Length 95th (ft)	38	2	0			
Control Delay (s)	17.5	0.9	0.0			
Lane LOS	C	A				
Approach Delay (s)	17.5	0.9	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay		3.3				
Intersection Capacity Utilization		55.0%		ICU Level of Service		A
Analysis Period (min)		15				

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	4	85	88	24	67	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	4	90	94	26	71	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			95		262	49
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			95		262	49
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		90	100
cM capacity (veh/h)			1499		681	1019
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	95	119	76			
Volume Left	0	94	71			
Volume Right	90	0	4			
cSH	1700	1499	694			
Volume to Capacity	0.06	0.06	0.11			
Queue Length 95th (ft)	0	5	9			
Control Delay (s)	0.0	6.0	10.8			
Lane LOS		A	B			
Approach Delay (s)	0.0	6.0	10.8			
Approach LOS			B			
Intersection Summary						
Average Delay		5.3				
Intersection Capacity Utilization		23.4%	ICU Level of Service	A		
Analysis Period (min)		15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	6	4	19	73	85	39
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Hourly flow rate (vph)	8	5	25	95	110	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	119				93	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	119				93	72
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				88	95
cM capacity (veh/h)	1468				902	990
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	13	119	161			
Volume Left	8	0	110			
Volume Right	0	95	51			
cSH	1468	1700	928			
Volume to Capacity	0.01	0.07	0.17			
Queue Length 95th (ft)	0	0	16			
Control Delay (s)	4.5	0.0	9.7			
Lane LOS	A		A			
Approach Delay (s)	4.5	0.0	9.7			
Approach LOS			A			
Intersection Summary						
Average Delay			5.5			
Intersection Capacity Utilization	19.3%		ICU Level of Service	A		
Analysis Period (min)	15					



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			1	2	
Volume (veh/h)	77	8	11	79	13	6
Sign Control	Free			Free	Stop	
Grade	2%			0%	-2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	84	9	12	86	14	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			92		198	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			92		198	88
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	99
cM capacity (veh/h)			1502		785	970
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	92	98	21			
Volume Left	0	12	14			
Volume Right	9	0	7			
cSH	1700	1502	835			
Volume to Capacity	0.05	0.01	0.02			
Queue Length 95th (ft)	0	1	2			
Control Delay (s)	0.0	1.0	9.4			
Lane LOS		A	A			
Approach Delay (s)	0.0	1.0	9.4			
Approach LOS		A				
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization			21.4%	ICU Level of Service		A
Analysis Period (min)			15			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	123	77	103	102	42	81
Sign Control	Stop		Free			Free
Grade	-1%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	134	84	112	111	46	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	347	167			223	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	347	167			223	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	90			97	
cM capacity (veh/h)	628	877			1346	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	217	223	134
Volume Left	134	0	46
Volume Right	84	111	0
cSH	705	1700	1346
Volume to Capacity	0.31	0.13	0.03
Queue Length 95th (ft)	33	0	3
Control Delay (s)	12.4	0.0	2.8
Lane LOS	B		A
Approach Delay (s)	12.4	0.0	2.8
Approach LOS	B		

Intersection Summary			
Average Delay		5.3	
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	84	65	14	132	11	74	61	3	10	33	9
Sign Control		Free			Free			Stop			Stop	
Grade		-5%			0%			2%			2%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	91	71	15	143	12	80	66	3	11	36	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	155			162			371	349	127	380	379	149
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	155			162			371	349	127	380	379	149
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			85	88	100	98	93	99
cM capacity (veh/h)	1425			1417			540	561	924	514	540	897
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	180	171	150	57								
Volume Left	18	15	80	11								
Volume Right	71	12	3	10								
cSH	1425	1417	554	574								
Volume to Capacity	0.01	0.01	0.27	0.10								
Queue Length 95th (ft)	1	1	27	8								
Control Delay (s)	0.9	0.8	13.9	12.0								
Lane LOS	A	A	B	B								
Approach Delay (s)	0.9	0.8	13.9	12.0								
Approach LOS			B	B								
Intersection Summary												
Average Delay			5.5									
Intersection Capacity Utilization			33.6%		ICU Level of Service					A		
Analysis Period (min)			15									