

# Appendix B: Traffic Analysis



Route 7 Corridor - Gap Analysis Study  
 1: Grist Mill Rd & Rt 7 (Main Ave)

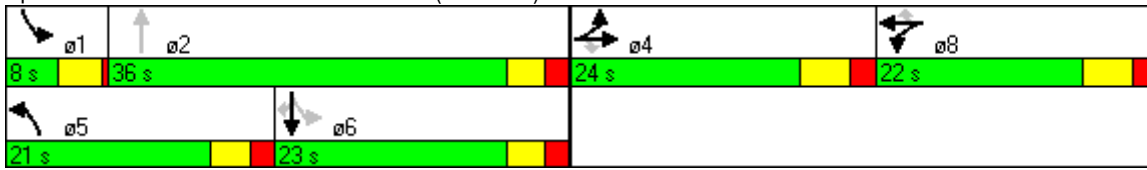
Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1170	80	500	30	60	20	280	370	30	20	480	1240
Satd. Flow (prot)	1681	1695	1583	0	1831	1583	1770	1842	0	1770	1863	1583
Flt Permitted	0.950	0.958			0.983		0.950			0.510		
Satd. Flow (perm)	1681	1695	1583	0	1831	1583	1770	1842	0	950	1863	1583
Satd. Flow (RTOR)			543			22		5				695
Lane Group Flow (vph)	674	685	543	0	98	22	304	435	0	22	522	1348
Turn Type	Split		Perm	Split		Perm	Prot			pm+pt		Perm
Protected Phases	4	4		8	8		5			1	6	
Permitted Phases			4			8		2		6		6
Total Split (s)	24.0	24.0	24.0	22.0	22.0	22.0	21.0	36.0	0.0	8.0	23.0	23.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	4.0	5.0	5.0
Act Effct Green (s)	18.0	18.0	18.0		10.7	10.7	20.1	40.1		26.1	19.2	19.2
Actuated g/C Ratio	0.20	0.20	0.20		0.12	0.12	0.22	0.45		0.29	0.21	0.21
v/c Ratio	2.01	2.02	0.72		0.45	0.11	0.77	0.53		0.07	1.31	1.52
Control Delay	487.1	493.4	9.3		43.1	15.3	48.0	22.7		22.6	187.4	262.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	487.1	493.4	9.3		43.1	15.3	48.0	22.7		22.6	187.4	262.1
LOS	F	F	A		D	B	D	C		C	F	F
Approach Delay		352.9			38.0			33.1			238.7	
Approach LOS		F			D			C			F	
Queue Length 50th (ft)	~636	~648	0		53	0	158	153		0	~418	~956
Queue Length 95th (ft)	#857	#869	95		98	21	#310	314		m12	m#433	m#971
Internal Link Dist (ft)		936			258			771			1601	
Turn Bay Length (ft)			400			175				60		
Base Capacity (vph)	336	339	751		326	300	395	824		330	398	885
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	2.01	2.02	0.72		0.30	0.07	0.77	0.53		0.07	1.31	1.52

Intersection Summary

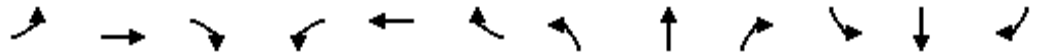
Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.02  
 Intersection Signal Delay: 247.6  
 Intersection LOS: F  
 Intersection Capacity Utilization 113.1%  
 ICU Level of Service H  
 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: Grist Mill Rd & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study  
 2: I-Park Dr & Rt 7 (Main Ave)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour










Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	20	20	50	300	70	130	180	1190	130	80	1300	70
Satd. Flow (prot)	0	1706	0	0	1790	1583	1770	3486	0	1770	3511	0
Flt Permitted		0.817			0.731		0.100			0.108		
Satd. Flow (perm)	0	1409	0	0	1362	1583	186	3486	0	201	3511	0
Satd. Flow (RTOR)		54				71		11			5	
Lane Group Flow (vph)	0	98	0	0	402	141	196	1434	0	87	1489	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	12.0	21.0	0.0	12.0	21.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	5.5	4.0
Act Effect Green (s)		28.3			28.3	28.3	53.4	43.0		46.0	36.9	
Actuated g/C Ratio		0.31			0.31	0.31	0.59	0.48		0.51	0.41	
v/c Ratio		0.20			0.94	0.26	0.64	0.86		0.40	1.03	
Control Delay		12.3			62.0	12.9	13.3	21.0		15.1	60.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		12.3			62.0	12.9	13.3	21.0		15.1	60.8	
LOS		B			E	B	B	C		B	E	
Approach Delay		12.3			49.2			20.1			58.3	
Approach LOS		B			D			C			E	
Queue Length 50th (ft)		17			215	28	30	435		20	~496	
Queue Length 95th (ft)		53			#389	71	m22	m72		41	#681	
Internal Link Dist (ft)		174			156			1601			796	
Turn Bay Length (ft)						60	125			390		
Base Capacity (vph)		501			449	570	308	1670		268	1443	
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		0.20			0.90	0.25	0.64	0.86		0.32	1.03	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.03  
 Intersection Signal Delay: 39.7  
 Intersection LOS: D  
 Intersection Capacity Utilization 87.4%  
 ICU Level of Service E  
 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: 2: I-Park Dr & Rt 7 (Main Ave)

 ø1	 ø2	 ø4	 ø11
12 s	21 s	35 s	22 s
 ø5	 ø6	 ø8	
12 s	21 s	35 s	

**Lane Group ø11**

Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	22.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

**Intersection Summary**



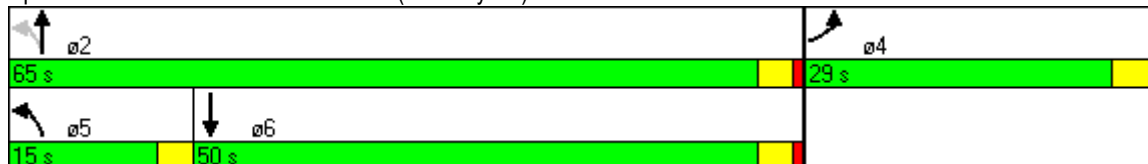


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	40	40	1320	1320	80
Satd. Flow (prot)	1711	0	1770	3539	3507	0
Flt Permitted	0.971		0.111			
Satd. Flow (perm)	1711	0	207	3539	3507	0
Satd. Flow (RTOR)	35				9	
Lane Group Flow (vph)	108	0	43	1435	1522	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Total Split (s)	29.0	0.0	15.0	65.0	50.0	0.0
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Act Effct Green (s)	20.0		71.8	71.6	66.8	
Actuated g/C Ratio	0.21		0.76	0.76	0.71	
v/c Ratio	0.28		0.18	0.53	0.61	
Control Delay	23.4		5.6	7.0	11.0	
Queue Delay	0.0		0.0	0.0	0.9	
Total Delay	23.4		5.6	7.0	11.9	
LOS	C		A	A	B	
Approach Delay	23.4			6.9	11.9	
Approach LOS	C			A	B	
Queue Length 50th (ft)	36		6	193	292	
Queue Length 95th (ft)	82		15	245	371	
Internal Link Dist (ft)	1288			1174	346	
Turn Bay Length (ft)			200			
Base Capacity (vph)	481		358	2696	2495	
Starvation Cap Reductn	0		0	0	626	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.22		0.12	0.53	0.81	

**Intersection Summary**

Cycle Length: 94  
 Actuated Cycle Length: 94  
 Offset: 54 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 10.0  
 Intersection LOS: A  
 Intersection Capacity Utilization 62.4%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
5: Comm. Dr. & Rt 7 (Danbury Rd)

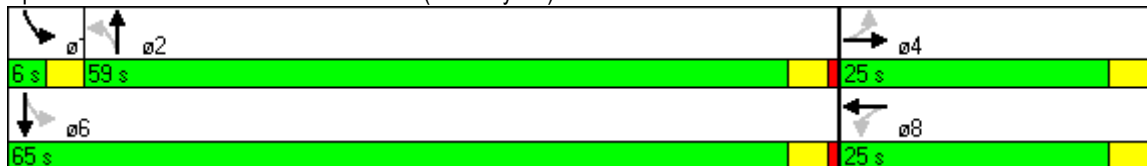
Existing Conditions (2009)  
Timing Plan: AM Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	10	50	130	10	50	40	1310	30	20	1220	10
Satd. Flow (prot)	0	1701	0	1770	1630	0	0	3525	0	0	3532	0
Flt Permitted		0.874		0.674				0.862			0.909	
Satd. Flow (perm)	0	1517	0	1255	1630	0	0	3042	0	0	3214	0
Satd. Flow (RTOR)		52			54			4			2	
Lane Group Flow (vph)	0	108	0	141	65	0	0	1500	0	0	1359	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	59.0	59.0	0.0	6.0	65.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Act Effect Green (s)		20.1		20.1	20.1			61.9			61.9	
Actuated g/C Ratio		0.22		0.22	0.22			0.69			0.69	
v/c Ratio		0.28		0.50	0.16			0.72			0.61	
Control Delay		18.5		37.9	11.7			11.1			9.1	
Queue Delay		0.0		0.0	0.0			3.8			0.0	
Total Delay		18.5		37.9	11.7			14.9			9.1	
LOS		B		D	B			B			A	
Approach Delay		18.5			29.6			14.9			9.1	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		26		71	5			237			189	
Queue Length 95th (ft)		70		131	37			318			249	
Internal Link Dist (ft)		164			716			346			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		394		293	422			2095			2213	
Starvation Cap Reductn		0		0	0			497			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.27		0.48	0.15			0.94			0.61	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 13.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 89.5%  
 ICU Level of Service E  
 Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	10	10	1200	50	100	1370	10
Satd. Flow (prot)	1863	1863	0	1770	1583	0	0	3518	0	1770	3536	0
Flt Permitted				0.833				0.937		0.166		
Satd. Flow (perm)	1863	1863	0	1552	1583	0	0	3296	0	309	3536	0
Satd. Flow (RTOR)					492			5			1	
Lane Group Flow (vph)	0	0	0	22	11	0	0	1369	0	109	1500	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Act Effct Green (s)				8.0	8.0			77.1		88.8	88.6	
Actuated g/C Ratio				0.08	0.08			0.78		0.90	0.90	
v/c Ratio				0.17	0.02			0.53		0.29	0.47	
Control Delay				45.8	0.1			5.7		2.9	2.2	
Queue Delay				0.0	0.0			0.0		0.0	0.2	
Total Delay				45.8	0.1			5.7		2.9	2.4	
LOS				D	A			A		A	A	
Approach Delay					30.6			5.7			2.5	
Approach LOS					C			A			A	
Queue Length 50th (ft)				13	0			171		7	101	
Queue Length 95th (ft)				38	0			226		12	126	
Internal Link Dist (ft)		108			84			1326			528	
Turn Bay Length (ft)				40						130		
Base Capacity (vph)				203	635			2577		397	3179	
Starvation Cap Reductn				0	0			0		0	769	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.11	0.02			0.53		0.27	0.62	

Intersection Summary

Cycle Length: 98.6  
 Actuated Cycle Length: 98.6  
 Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.53  
 Intersection Signal Delay: 4.2  
 Intersection LOS: A  
 Intersection Capacity Utilization 92.4%  
 ICU Level of Service F  
 Analysis Period (min) 15

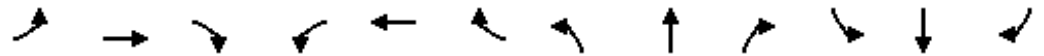
Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

ø1	ø2	ø4	ø11
11.1 s	45.5 s	16 s	26 s
ø6		ø8	
56.6 s		16 s	

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	26.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Route 7 Corridor - Gap Analysis Study  
 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

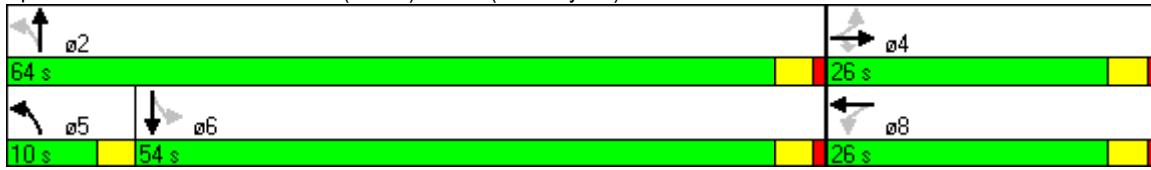


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↔			↕			↕	↗
Volume (vph)	10	10	10	240	110	60	70	1150	50	20	1230	100
Satd. Flow (prot)	0	1818	1583	0	1774	0	0	3507	0	0	3497	0
Flt Permitted		0.860			0.807			0.711			0.917	
Satd. Flow (perm)	0	1602	1583	0	1473	0	0	2501	0	0	3210	0
Satd. Flow (RTOR)			11		9			10			15	
Lane Group Flow (vph)	0	22	11	0	446	0	0	1380	0	0	1468	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8			2			6		
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)		22.0	22.0		22.0			60.0			60.0	
Actuated g/C Ratio		0.24	0.24		0.24			0.67			0.67	
v/c Ratio		0.06	0.03		1.22			0.83			0.68	
Control Delay		26.7	14.1		151.2			16.6			10.1	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		26.7	14.1		151.2			16.6			10.1	
LOS		C	B		F			B			B	
Approach Delay		22.5			151.2			16.6			10.1	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)		10	0		~312			267			206	
Queue Length 95th (ft)		29	13		#499			380			m188	
Internal Link Dist (ft)		250			1316			528			4196	
Turn Bay Length (ft)												
Base Capacity (vph)		392	395		367			1671			2145	
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		0.06	0.03		1.22			0.83			0.68	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.22  
 Intersection Signal Delay: 31.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 112.6%  
 ICU Level of Service H  
 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: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



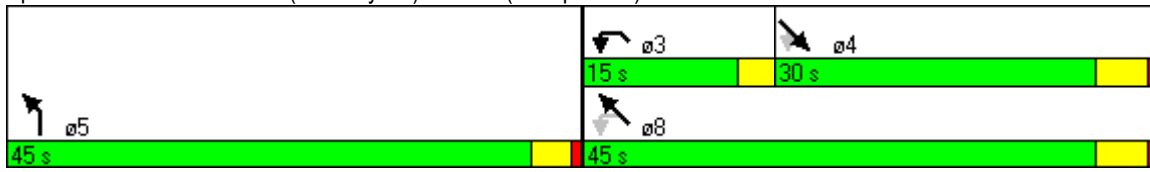


Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	780	300	500	950	500	630
Satd. Flow (prot)	3341	0	1863	1583	1770	3539
Flt Permitted	0.965				0.143	
Satd. Flow (perm)	3341	0	1863	1583	266	3539
Satd. Flow (RTOR)	86			848		
Lane Group Flow (vph)	1174	0	543	1033	543	685
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Act Effect Green (s)	37.9		25.0	25.0	45.1	43.1
Actuated g/C Ratio	0.42		0.28	0.28	0.50	0.48
v/c Ratio	0.81		1.05	0.98	1.41	0.40
Control Delay	24.8		86.4	31.6	223.9	16.7
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	24.8		86.4	31.6	223.9	16.7
LOS	C		F	C	F	B
Approach Delay	24.8		50.5			108.3
Approach LOS	C		D			F
Queue Length 50th (ft)	181		~340	118	~390	132
Queue Length 95th (ft)	m242		#536	#463	#606	183
Internal Link Dist (ft)	4196		2511			1627
Turn Bay Length (ft)					248	
Base Capacity (vph)	1569		518	1052	385	1693
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	0.75		1.05	0.98	1.41	0.40

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.41  
 Intersection Signal Delay: 60.8 Intersection LOS: E  
 Intersection Capacity Utilization 96.5% 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: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd)

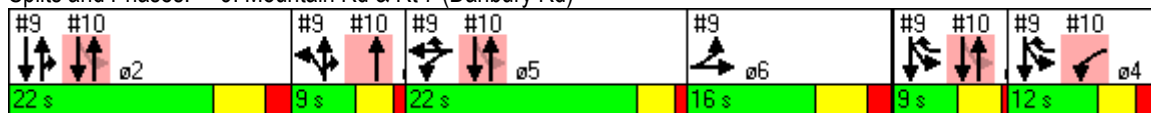
Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↑↑	↗	↖	↗↖	
Volume (vph)	40	40	20	310	70	180	10	490	120	300	670	40
Satd. Flow (prot)	1770	1768	0	1681	1715	1583	1770	3539	1583	1770	3511	0
Flt Permitted	0.950			0.950	0.969		0.950			0.950		
Satd. Flow (perm)	1770	1768	0	1681	1715	1583	1770	3539	1583	1770	3511	0
Satd. Flow (RTOR)		22				196			130		8	
Lane Group Flow (vph)	43	65	0	206	207	196	11	533	130	326	771	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Act Effct Green (s)	10.3	10.3		17.7	17.7	39.0	5.0	27.0	27.0	20.5	40.5	
Actuated g/C Ratio	0.11	0.11		0.20	0.20	0.43	0.06	0.30	0.30	0.23	0.45	
v/c Ratio	0.21	0.29		0.62	0.61	0.25	0.11	0.50	0.23	0.81	0.49	
Control Delay	39.4	30.5		42.2	41.6	2.3	43.1	28.0	5.6	56.7	19.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	31.8	2.0	
Total Delay	39.4	30.5		42.2	41.6	2.3	43.1	28.0	5.6	88.5	21.0	
LOS	D	C		D	D	A	D	C	A	F	C	
Approach Delay		34.0			29.2			23.9			41.0	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	23	23		113	113	0	6	130	0	199	120	
Queue Length 95th (ft)	55	61		190	190	24	23	180	40	#366	206	
Internal Link Dist (ft)		362			686			885			165	
Turn Bay Length (ft)	90			380		190	50		900	130		
Base Capacity (vph)	202	221		336	343	788	98	1062	566	402	1583	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	87	628	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.21	0.29		0.61	0.60	0.25	0.11	0.50	0.23	1.03	0.81	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 33.2 Intersection LOS: C  
 Intersection Capacity Utilization 57.3% ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Satd. Flow (RTOR)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Total Split (s)	22.0	9.0	12.0
Total Lost Time (s)			
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
<b>Intersection Summary</b>			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	50	50	680	30	50	960					
Satd. Flow (prot)	1694	0	3518	0	1770	3539					
Flt Permitted	0.976				0.292						
Satd. Flow (perm)	1694	0	3518	0	544	3539					
Satd. Flow (RTOR)	43		9								
Lane Group Flow (vph)	108	0	772	0	54	1043					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Act Effct Green (s)	7.0		58.0		39.4	39.4					
Actuated g/C Ratio	0.08		0.64		0.44	0.44					
v/c Ratio	0.63		0.34		0.23	0.67					
Control Delay	43.1		2.0		10.4	14.5					
Queue Delay	1.3		0.1		0.0	1.8					
Total Delay	44.4		2.1		10.4	16.3					
LOS	D		A		B	B					
Approach Delay	44.4		2.1			16.0					
Approach LOS	D		A			B					
Queue Length 50th (ft)	36		24		7	118					
Queue Length 95th (ft)	#105		27		20	160					
Internal Link Dist (ft)	127		165			133					
Turn Bay Length (ft)											
Base Capacity (vph)	171		2249		233	1512					
Starvation Cap Reductn	0		531		0	0					
Spillback Cap Reductn	10		0		0	296					
Storage Cap Reductn	0		0		0	0					
Reduced v/c Ratio	0.67		0.45		0.23	0.86					

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 12.1

Intersection LOS: B

Intersection Capacity Utilization 50.6%

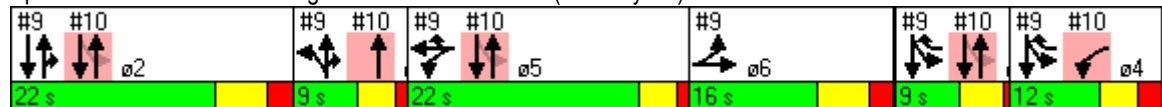
ICU Level of Service A

Analysis Period (min) 15

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

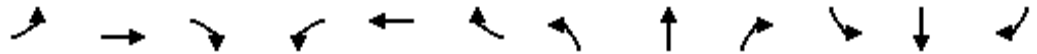
Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

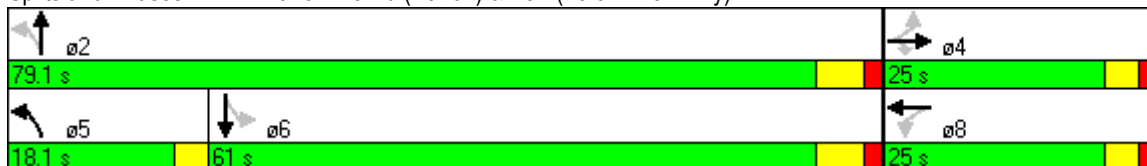


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↖			↕	↕
Volume (vph)	60	10	230	10	20	0	220	580	0	10	700	90
Satd. Flow (prot)	0	1786	1583	0	1833	0	1770	1863	0	0	1833	0
Flt Permitted		0.741			0.916		0.241				0.991	
Satd. Flow (perm)	0	1380	1583	0	1706	0	449	1863	0	0	1818	0
Satd. Flow (RTOR)			250								9	
Lane Group Flow (vph)	0	76	250	0	33	0	239	630	0	0	870	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8			2			6		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Act Effct Green (s)		18.3	18.3		18.3		67.5	64.6			49.0	
Actuated g/C Ratio		0.19	0.19		0.19		0.72	0.69			0.52	
v/c Ratio		0.28	0.49		0.10		0.48	0.49			0.91	
Control Delay		39.2	8.5		35.8		7.4	8.2			36.1	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		39.2	8.5		35.8		7.4	8.2			36.1	
LOS		D	A		D		A	A			D	
Approach Delay		15.7			35.8			8.0			36.1	
Approach LOS		B			D			A			D	
Queue Length 50th (ft)		43	0		18		39	153			457	
Queue Length 95th (ft)		88	67		46		61	219			#749	
Internal Link Dist (ft)		550			290			1200			2587	
Turn Bay Length (ft)							100					
Base Capacity (vph)		291	532		361		521	1334			1007	
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		0.26	0.47		0.09		0.46	0.47			0.86	

Intersection Summary

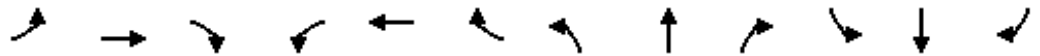
Cycle Length: 104.1  
 Actuated Cycle Length: 94  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.91  
 Intersection Signal Delay: 21.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 102.5%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

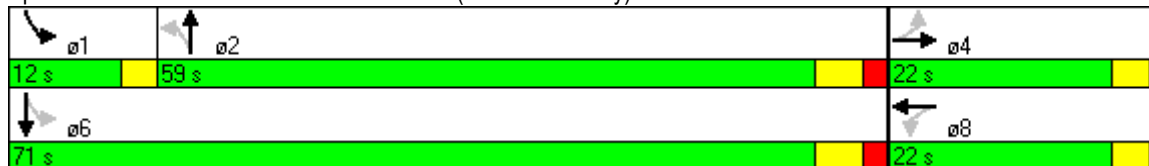


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	10	40	50	50	190	50	60	500	0	20	500	10
Satd. Flow (prot)	0	1727	0	0	1805	0	1770	1863	0	1770	1857	0
Flt Permitted		0.962			0.932		0.457			0.288		
Satd. Flow (perm)	0	1670	0	0	1696	0	851	1863	0	536	1857	0
Satd. Flow (RTOR)		48			10						3	
Lane Group Flow (vph)	0	108	0	0	315	0	65	543	0	22	554	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Act Effct Green (s)		18.0			18.0		30.5	30.5		41.5	38.5	
Actuated g/C Ratio		0.27			0.27		0.46	0.46		0.62	0.58	
v/c Ratio		0.22			0.68		0.17	0.64		0.05	0.51	
Control Delay		13.2			30.0		12.0	18.0		5.0	10.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		13.2			30.0		12.0	18.0		5.0	10.4	
LOS		B			C		B	B		A	B	
Approach Delay		13.2			30.0			17.3			10.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		18			109		15	160		3	120	
Queue Length 95th (ft)		55			#219		37	258		10	192	
Internal Link Dist (ft)		407			189			2835			1876	
Turn Bay Length (ft)							94			220		
Base Capacity (vph)		487			466		507	1108		474	1299	
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		0.22			0.68		0.13	0.49		0.05	0.43	

Intersection Summary

Cycle Length: 93  
 Actuated Cycle Length: 66.5  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.68  
 Intersection Signal Delay: 17.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 80.7%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

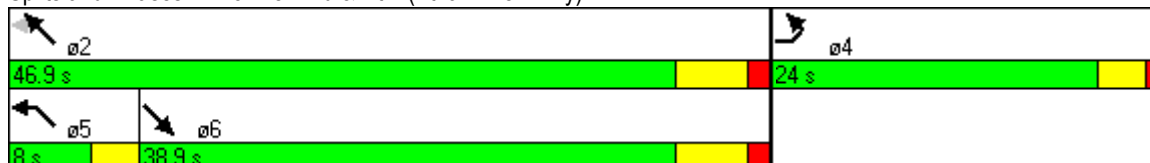


Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations	↘		↙			↗
Volume (vph)	30	20	710	70	30	530
Satd. Flow (prot)	1711	0	1840	0	0	1857
Flt Permitted	0.971					0.805
Satd. Flow (perm)	1711	0	1840	0	0	1500
Satd. Flow (RTOR)			9			
Lane Group Flow (vph)	55	0	848	0	0	609
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Act Effct Green (s)	19.0		31.5			40.1
Actuated g/C Ratio	0.28		0.54			0.69
v/c Ratio	0.11		0.84			0.58
Control Delay	19.8		25.8			10.8
Queue Delay	0.0		0.0			0.0
Total Delay	19.8		25.8			10.8
LOS	B		C			B
Approach Delay	19.8		25.8			10.8
Approach LOS	B		C			B
Queue Length 50th (ft)	18		334			144
Queue Length 95th (ft)	44		#586			229
Internal Link Dist (ft)	592		4303			332
Turn Bay Length (ft)						
Base Capacity (vph)	504		1043			1065
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.11		0.81			0.57

Intersection Summary

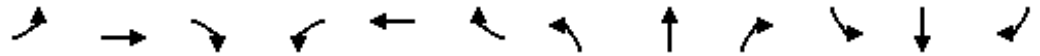
Cycle Length: 70.9  
 Actuated Cycle Length: 57.9  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 19.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 76.5%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

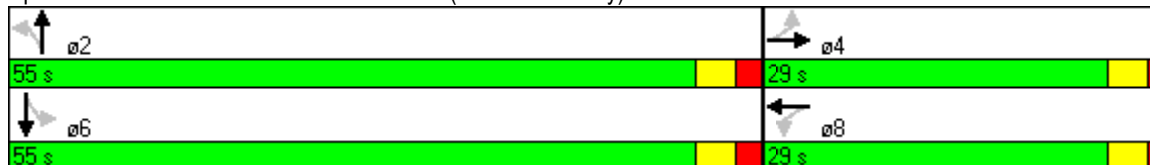


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	20	10	10	30	30	20	10	530	10	10	700	20
Satd. Flow (prot)	0	1756	0	0	1767	0	0	1857	0	0	1853	0
Flt Permitted		0.846			0.881			0.986			0.992	
Satd. Flow (perm)	0	1522	0	0	1585	0	0	1833	0	0	1840	0
Satd. Flow (RTOR)								2			3	
Lane Group Flow (vph)	0	44	0	0	88	0	0	598	0	0	794	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Act Effct Green (s)		22.6			22.6			42.6			42.6	
Actuated g/C Ratio		0.34			0.34			0.75			0.75	
v/c Ratio		0.09			0.17			0.44			0.58	
Control Delay		20.2			20.8			8.6			10.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		20.2			20.8			8.6			10.9	
LOS		C			C			A			B	
Approach Delay		20.2			20.8			8.6			10.9	
Approach LOS		C			C			A			B	
Queue Length 50th (ft)		13			26			153			242	
Queue Length 95th (ft)		42			71			235			374	
Internal Link Dist (ft)		138			187			212			697	
Turn Bay Length (ft)												
Base Capacity (vph)		554			577			1412			1418	
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		0.08			0.15			0.42			0.56	

Intersection Summary

Cycle Length: 84  
 Actuated Cycle Length: 56.9  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 10.8  
 Intersection Capacity Utilization 69.1%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service C

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

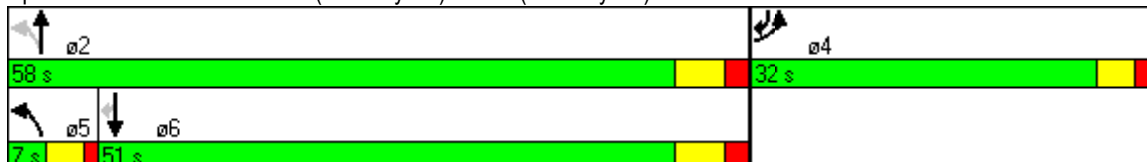


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	<del>TT</del>			<del>TT</del>	<del>T</del>	<del>T</del>
Volume (vph)	380	70	40	510	630	600
Satd. Flow (prot)	3386	0	0	3525	1863	1583
Flt Permitted	0.959			0.760		
Satd. Flow (perm)	3386	0	0	2690	1863	1583
Satd. Flow (RTOR)	25					652
Lane Group Flow (vph)	489	0	0	597	685	652
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Act Effect Green (s)	19.2			36.0	28.8	54.2
Actuated g/C Ratio	0.29			0.54	0.43	0.82
v/c Ratio	0.49			0.41	0.85	0.46
Control Delay	22.1			9.4	27.5	1.2
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	22.1			9.4	27.5	1.2
LOS	C			A	C	A
Approach Delay	22.1			9.4	14.7	
Approach LOS	C			A	B	
Queue Length 50th (ft)	75			60	226	0
Queue Length 95th (ft)	157			100	395	9
Internal Link Dist (ft)	1007			425	2009	
Turn Bay Length (ft)	180					
Base Capacity (vph)	1262			1717	1023	1431
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	0.39			0.35	0.67	0.46

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 66.5  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 14.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 68.8%  
 ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

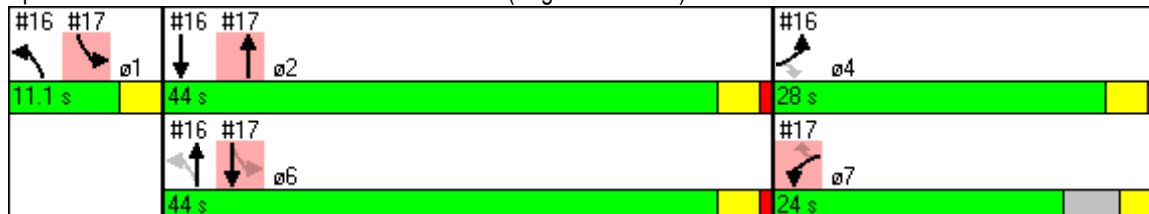


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	50	30	10	790	1270	20	
Satd. Flow (prot)	1770	1583	1770	3539	3532	0	
Flt Permitted	0.950		0.124				
Satd. Flow (perm)	1770	1583	231	3539	3532	0	
Satd. Flow (RTOR)		33			3		
Lane Group Flow (vph)	54	33	11	859	1402	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	24.0
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Act Effct Green (s)	24.0	24.0	57.0	55.5	55.5		
Actuated g/C Ratio	0.29	0.29	0.69	0.67	0.67		
v/c Ratio	0.11	0.07	0.04	0.36	0.59		
Control Delay	22.5	8.4	6.2	9.3	2.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	22.5	8.4	6.2	9.3	2.6		
LOS	C	A	A	A	A		
Approach Delay	17.1			9.3	2.6		
Approach LOS	B			A	A		
Queue Length 50th (ft)	21	0	2	107	0		
Queue Length 95th (ft)	48	20	8	200	0		
Internal Link Dist (ft)	408			1795	86		
Turn Bay Length (ft)			80				
Base Capacity (vph)	511	481	307	2362	2358		
Starvation Cap Reductn	0	0	0	0	1		
Spillback Cap Reductn	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.11	0.07	0.04	0.36	0.59		

Intersection Summary

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 5.6  
 Intersection LOS: A  
 Intersection Capacity Utilization 62.4%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

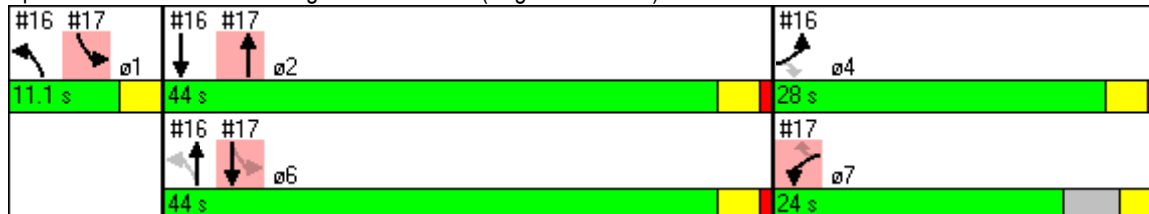
Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

	↙	↖	↑	↗	↘	↓	ø4
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations	↙	↖	↕↔		↙	↕↕	
Volume (vph)	0	10	820	20	0	1290	
Satd. Flow (prot)	1863	1583	3525	0	1863	3539	
Flt Permitted							
Satd. Flow (perm)	1863	1583	3525	0	1863	3539	
Satd. Flow (RTOR)		260	4				
Lane Group Flow (vph)	0	11	913	0	0	1402	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Total Split (s)	24.0	24.0	44.0	0.0	11.1	44.0	28.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Act Effct Green (s)		20.9	55.5			55.5	
Actuated g/C Ratio		0.25	0.67			0.67	
v/c Ratio		0.02	0.39			0.59	
Control Delay		0.1	2.9			12.4	
Queue Delay		0.0	0.1			0.0	
Total Delay		0.1	3.0			12.4	
LOS		A	A			B	
Approach Delay			3.0			12.4	
Approach LOS			A			B	
Queue Length 50th (ft)		0	26			220	
Queue Length 95th (ft)		0	33			398	
Internal Link Dist (ft)	204		86			664	
Turn Bay Length (ft)							
Base Capacity (vph)		656	2354			2362	
Starvation Cap Reductn		0	272			0	
Spillback Cap Reductn		0	0			0	
Storage Cap Reductn		0	0			0	
Reduced v/c Ratio		0.02	0.44			0.59	

Intersection Summary

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 8.6  
 Intersection LOS: A  
 Intersection Capacity Utilization 39.0%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: AM Peak Hour

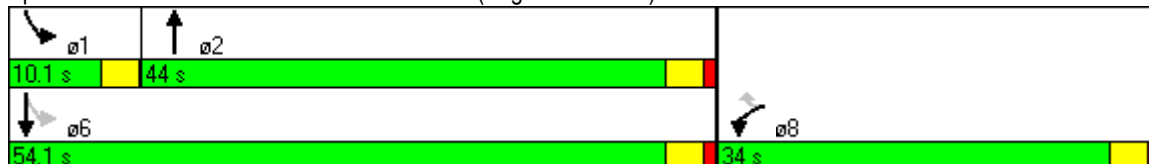
	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↔		↘	↕
Volume (vph)	40	150	860	10	30	1260
Satd. Flow (prot)	1770	1583	3532	0	1770	3539
Flt Permitted	0.950				0.251	
Satd. Flow (perm)	1770	1583	3532	0	468	3539
Satd. Flow (RTOR)		163	2			
Lane Group Flow (vph)	43	163	946	0	33	1370
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Act Effect Green (s)	6.4	6.4	35.0		38.7	37.9
Actuated g/C Ratio	0.12	0.12	0.67		0.68	0.72
v/c Ratio	0.20	0.48	0.40		0.08	0.54
Control Delay	24.7	10.5	5.4		2.8	4.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	24.7	10.5	5.4		2.8	4.3
LOS	C	B	A		A	A
Approach Delay	13.5		5.4			4.2
Approach LOS	B		A			A
Queue Length 50th (ft)	10	0	37		2	64
Queue Length 95th (ft)	42	47	127		7	125
Internal Link Dist (ft)	336		3518			2397
Turn Bay Length (ft)					80	
Base Capacity (vph)	705	729	2490		461	2750
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	0.06	0.22	0.38		0.07	0.50

Intersection Summary

Cycle Length: 88.1  
 Actuated Cycle Length: 52.6  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 5.4  
 Intersection Capacity Utilization 45.7%  
 Analysis Period (min) 15

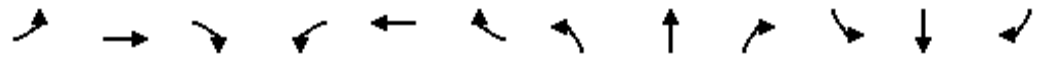
Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 1: Grist Mill Rd & Rt 7 (Main Ave)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1300	10	370	10	30	10	450	630	20	10	430	1120
Satd. Flow (prot)	1681	1686	1583	0	1840	1583	1770	1853	0	1770	1863	1583
Flt Permitted	0.950	0.953			0.988		0.950			0.396		
Satd. Flow (perm)	1681	1686	1583	0	1840	1583	1770	1853	0	738	1863	1583
Satd. Flow (RTOR)			402			11		2				658
Lane Group Flow (vph)	706	718	402	0	44	11	489	707	0	11	467	1217
Turn Type	Split		Perm	Split		Perm	Prot			Perm		Perm
Protected Phases	4	4		8	8		5				6	
Permitted Phases			4			8		2		6		6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	21.5	21.0		21.5	21.5	21.5
Total Split (s)	23.0	23.0	23.0	22.0	22.0	22.0	22.0	45.0	0.0	23.0	23.0	23.0
Total Split (%)	25.6%	25.6%	25.6%	24.4%	24.4%	24.4%	24.4%	50.0%	0.0%	25.6%	25.6%	25.6%
Maximum Green (s)	17.0	17.0	17.0	16.0	16.0	16.0	17.0	40.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	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	2.0	2.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	Min	Min	None	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	17.0		7.6	7.6	25.4	48.4		18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19		0.08	0.08	0.28	0.54		0.20	0.20	0.20
v/c Ratio	2.22	2.26	0.64		0.28	0.08	0.98	0.71		0.07	1.25	1.44
Control Delay	581.4	598.0	8.9		42.5	20.5	70.4	20.9		38.0	160.9	224.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	581.4	598.0	8.9		42.5	20.5	70.4	20.9		38.0	160.9	224.3
LOS	F	F	A		D	C	E	C		D	F	F
Approach Delay		461.9			38.1			41.1			205.6	
Approach LOS		F			D			D			F	
Queue Length 50th (ft)	~688	~703	0		24	0	275	281		6	~351	~748
Queue Length 95th (ft)	#912	#928	80		55	16	#504	449		m8	m#430	m#776
Internal Link Dist (ft)		936			258			771			1601	
Turn Bay Length (ft)			400			175				60		
Base Capacity (vph)	318	318	625		327	290	499	997		148	373	843
Starvation Cap Reductn	0	0	0		0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0		0	0	0
Reduced v/c Ratio	2.22	2.26	0.64		0.13	0.04	0.98	0.71		0.07	1.25	1.44

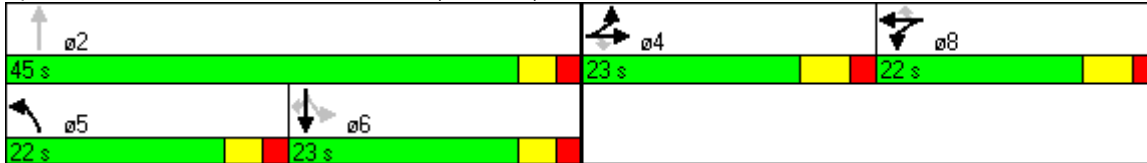
Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.26  
 Intersection Signal Delay: 260.5  
 Intersection Capacity Utilization 110.9%  
 Intersection LOS: F  
 ICU Level of Service H

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: Grist Mill Rd & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study  
 2: I-Park Dr & Rt 7 (Main Ave)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	60	60	170	300	20	160	60	1590	320	170	1110	20
Satd. Flow (prot)	0	1698	0	0	1779	1583	1770	3451	0	1770	3529	0
Flt Permitted		0.513			0.403		0.169			0.085		
Satd. Flow (perm)	0	880	0	0	751	1583	315	3451	0	158	3529	0
Satd. Flow (RTOR)		76				91		25			2	
Lane Group Flow (vph)	0	315	0	0	348	174	65	2076	0	185	1229	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	13.3	13.3		13.3	13.3	13.3	8.0	20.5		8.0	20.5	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	12.0	28.0	0.0	12.0	28.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	31.1%	13.3%	31.1%	0.0%	13.3%	31.1%	0.0%
Maximum Green (s)	22.7	22.7		22.7	22.7	22.7	9.0	22.5		9.0	24.4	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.9		3.0	2.0	
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	0.0	1.6		0.0	1.6	
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	3.6	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.5		1.0	2.5	
Recall Mode	None	None		None	None	None	None	C-Max		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7			22.7	22.7	49.7	42.0		59.0	51.8	
Actuated g/C Ratio		0.25			0.25	0.25	0.55	0.47		0.66	0.58	
v/c Ratio		1.13			1.84	0.37	0.25	1.28		0.60	0.60	
Control Delay		120.1			423.2	16.3	6.7	151.3		21.9	14.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		120.1			423.2	16.3	6.7	151.3		21.9	14.5	
LOS		F			F	B	A	F		C	B	
Approach Delay		120.1			287.5			146.9			15.5	
Approach LOS		F			F			F			B	
Queue Length 50th (ft)		~175			~303	37	7	~805		46	231	
Queue Length 95th (ft)		#340			#470	93	m9	m417		110	304	
Internal Link Dist (ft)		174			156			1601			796	
Turn Bay Length (ft)						60	125			390		
Base Capacity (vph)		279			189	467	333	1625		319	2032	
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		1.13			1.84	0.37	0.20	1.28		0.58	0.60	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 9 (10%), Referenced to phase 2:NBTL, Start of Green  
 Control Type: Actuated-Coordinated

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	20.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	0.0
Flash Dont Walk (s)	22.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Maximum v/c Ratio: 1.84

Intersection Signal Delay: 119.4 Intersection LOS: F

Intersection Capacity Utilization 114.9% ICU Level of Service H

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: 2: I-Park Dr & Rt 7 (Main Ave)

 ø1	 ø2	 ø4	 ø11
12 s	28 s	28 s	22 s
 ø5	 ø6	 ø8	
12 s	28 s	28 s	

Route 7 Corridor - Gap Analysis Study  
 3: Foxboro Drive & Rt 7 (Main Ave)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



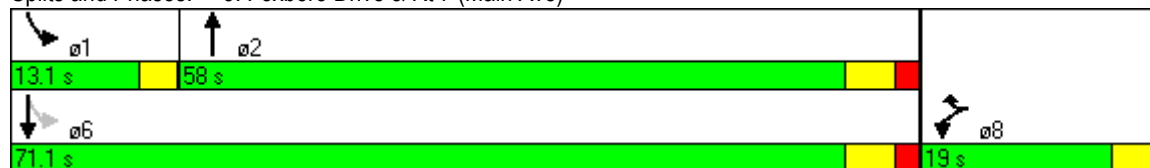
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	70	1600	110	50	1330
Satd. Flow (prot)	1770	1583	3504	0	1770	3539
Flt Permitted	0.950				0.069	
Satd. Flow (perm)	1770	1583	3504	0	129	3539
Satd. Flow (RTOR)		76	13			
Lane Group Flow (vph)	76	76	1859	0	54	1446
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	7.0	7.0	20.0		7.0	20.0
Minimum Split (s)	11.0	11.0	25.9		10.1	25.9
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	0.0%	14.5%	78.9%
Maximum Green (s)	15.0	15.0	52.1		10.0	65.2
Yellow Time (s)	3.0	3.0	3.9		3.0	3.9
All-Red Time (s)	1.0	1.0	2.0		0.1	2.0
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.5	2.5	2.5		2.0	2.5
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	9.1	9.1	66.4		76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74		0.84	0.83
v/c Ratio	0.42	0.33	0.72		0.23	0.49
Control Delay	44.8	13.2	11.4		4.1	3.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.8	13.2	11.4		4.1	3.9
LOS	D	B	B		A	A
Approach Delay	29.0		11.4			3.9
Approach LOS	C		B			A
Queue Length 50th (ft)	42	0	326		4	112
Queue Length 95th (ft)	82	39	485		12	185
Internal Link Dist (ft)	424		796			1174
Turn Bay Length (ft)	70				200	
Base Capacity (vph)	295	327	2586		291	2925
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	0.26	0.23	0.72		0.19	0.49

Intersection Summary

Cycle Length: 90.1	
Actuated Cycle Length: 90.1	
Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 61.8%	ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study  
4: Kent Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	60	100	1470	1140	120
Satd. Flow (prot)	1687	0	1770	3539	3490	0
Flt Permitted	0.978		0.126			
Satd. Flow (perm)	1687	0	235	3539	3490	0
Satd. Flow (RTOR)	62				16	
Lane Group Flow (vph)	119	0	109	1598	1369	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Minimum Initial (s)	20.0		5.0	15.0	15.0	
Minimum Split (s)	29.0		8.0	19.0	19.0	
Total Split (s)	29.0	0.0	16.0	66.0	50.0	0.0
Total Split (%)	30.5%	0.0%	16.8%	69.5%	52.6%	0.0%
Maximum Green (s)	25.0		13.0	62.0	46.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		0.0	1.0	1.0	
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	1.0		1.0	0.2	0.2	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	15.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	20.0		68.0	67.0	60.1	
Actuated g/C Ratio	0.21		0.72	0.71	0.63	
v/c Ratio	0.29		0.42	0.64	0.62	
Control Delay	18.6		9.2	9.0	12.4	
Queue Delay	0.0		0.0	0.0	2.3	
Total Delay	18.6		9.2	9.0	14.7	
LOS	B		A	A	B	
Approach Delay	18.6			9.0	14.7	
Approach LOS	B			A	B	
Queue Length 50th (ft)	28		17	234	245	
Queue Length 95th (ft)	76		32	295	326	
Internal Link Dist (ft)	1288			1174	346	
Turn Bay Length (ft)			200			
Base Capacity (vph)	490		378	2496	2212	
Starvation Cap Reductn	0		0	0	672	
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.24		0.29	0.64	0.89	

**Intersection Summary**

Cycle Length: 95  
 Actuated Cycle Length: 95  
 Offset: 54 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Control Type: Actuated-Coordinated

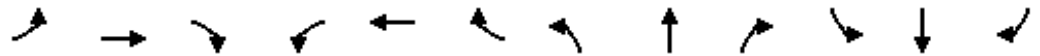
Maximum v/c Ratio: 0.64	Intersection LOS: B
Intersection Signal Delay: 11.8	ICU Level of Service C
Intersection Capacity Utilization 67.5%	
Analysis Period (min) 15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)

↑ ø2	↑ ø4
66 s	29 s
↙ ø5	↓ ø6
16 s	50 s

Route 7 Corridor - Gap Analysis Study  
5: Comm. Dr. & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↗			↕			↕	
Volume (vph)	30	0	50	60	0	20	20	1400	100	60	1150	10
Satd. Flow (prot)	0	1674	0	1770	1583	0	0	3500	0	0	3529	0
Flt Permitted		0.895		0.701				0.923			0.736	
Satd. Flow (perm)	0	1527	0	1306	1583	0	0	3234	0	0	2602	0
Satd. Flow (RTOR)		54			125			14			2	
Lane Group Flow (vph)	0	87	0	65	22	0	0	1653	0	0	1326	0
Turn Type	Perm		Perm			Perm			pm+pt			
Protected Phases		4			8			2			1	6
Permitted Phases	4			8			2			6		
Minimum Initial (s)	6.0	6.0		20.0	20.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	10.0		24.0	24.0		19.0	19.0		6.0	19.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	58.0	58.0	0.0	8.0	66.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%	64.4%	64.4%	0.0%	8.9%	73.3%	0.0%
Maximum Green (s)	20.0	20.0		20.0	20.0		54.0	54.0		5.0	62.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	0.2	0.2		1.0	1.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)				15.0	15.0							
Flash Dont Walk (s)				1.0	1.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)		17.2		20.0	20.0			67.6			67.6	
Actuated g/C Ratio		0.19		0.22	0.22			0.75			0.75	
v/c Ratio		0.26		0.22	0.05			0.68			0.68	
Control Delay		15.7		31.1	0.2			9.5			10.1	
Queue Delay		0.0		0.0	0.0			1.4			0.0	
Total Delay		15.7		31.1	0.2			11.0			10.1	
LOS		B		C	A			B			B	
Approach Delay		15.7			23.3			11.0			10.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		15		30	0			269			217	
Queue Length 95th (ft)		54		66	0			352			301	
Internal Link Dist (ft)		164			716			346			1326	
Turn Bay Length (ft)												
Base Capacity (vph)		381		290	449			2432			1955	
Starvation Cap Reductn		0		0	0			541			0	
Spillback Cap Reductn		0		0	0			0			0	
Storage Cap Reductn		0		0	0			0			0	
Reduced v/c Ratio		0.23		0.22	0.05			0.87			0.68	

Intersection Summary

Cycle Length: 90

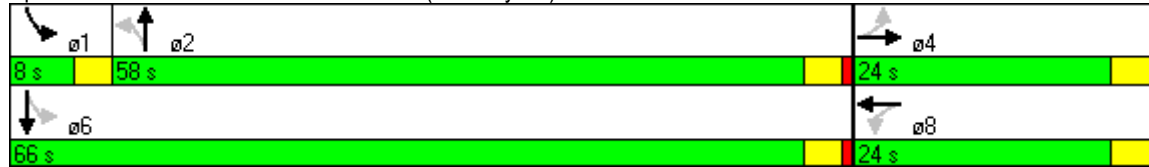
Actuated Cycle Length: 90

Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68	Intersection LOS: B
Intersection Signal Delay: 11.1	ICU Level of Service G
Intersection Capacity Utilization 100.0%	
Analysis Period (min) 15	

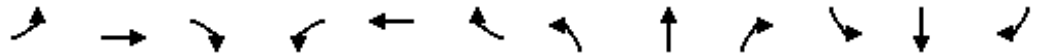
Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Existing Conditions (2009)

Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕		↖	↗	
Volume (vph)	10	0	30	80	0	80	10	1500	20	10	1150	10
Satd. Flow (prot)	1770	1583	0	1770	1583	0	0	3532	0	1770	3536	0
Flt Permitted	0.604			0.736				0.944		0.111		
Satd. Flow (perm)	1125	1583	0	1371	1583	0	0	3334	0	207	3536	0
Satd. Flow (RTOR)		392			487			2			1	
Lane Group Flow (vph)	11	33	0	87	87	0	0	1663	0	11	1261	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0		5.0	15.0	
Minimum Split (s)	11.1	11.1		11.1	11.1		20.5	20.5		8.1	20.5	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Split (%)	16.2%	16.2%	0.0%	16.2%	16.2%	0.0%	46.1%	46.1%	0.0%	11.3%	57.4%	0.0%
Maximum Green (s)	12.9	12.9		12.9	12.9		40.0	40.0		8.0	51.1	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.9	3.9		3.0	3.9	
All-Red Time (s)	0.1	0.1		0.1	0.1		1.6	1.6		0.1	1.6	
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.1	10.1		10.1	10.1		78.3			82.3	79.9	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.79			0.83	0.81	
v/c Ratio	0.10	0.06		0.62	0.15		0.63			0.04	0.44	
Control Delay	40.6	0.2		61.3	0.5		6.2			2.1	3.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.3	
Total Delay	40.6	0.2		61.3	0.5		6.2			2.1	3.7	
LOS	D	A		E	A		A			A	A	
Approach Delay		10.3			30.9		6.2				3.7	
Approach LOS		B			C		A				A	
Queue Length 50th (ft)	6	0		54	0		148			1	88	
Queue Length 95th (ft)	23	0		102	0		362			4	140	
Internal Link Dist (ft)		108			84		1326				528	
Turn Bay Length (ft)	40			40						130		
Base Capacity (vph)	147	548		179	630		2648			300	2866	
Starvation Cap Reductn	0	0		0	0		0			0	808	
Spillback Cap Reductn	0	0		0	0		0			0	0	
Storage Cap Reductn	0	0		0	0		0			0	0	
Reduced v/c Ratio	0.07	0.06		0.49	0.14		0.63			0.04	0.61	

Intersection Summary

Cycle Length: 98.6

Actuated Cycle Length: 98.6

Offset: 14 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Control Type: Actuated-Coordinated

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	3.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	26%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Route 7 Corridor - Gap Analysis Study  
 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 6.6







Intersection LOS: A

Intersection Capacity Utilization 68.1%

ICU Level of Service C

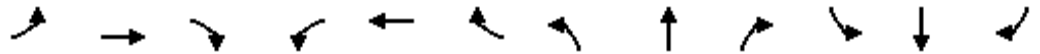
Analysis Period (min) 15

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4	 ø11
11.1 s	45.5 s	16 s	26 s
 ø6		 ø8	
56.6 s		16 s	

Route 7 Corridor - Gap Analysis Study  
 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Volume (vph)	90	90	50	60	10	70	10	1450	230	70	1070	20
Satd. Flow (prot)	0	1818	1583	0	1700	0	0	3468	0	0	3518	0
Flt Permitted		0.739			0.688			0.946			0.639	
Satd. Flow (perm)	0	1377	1583	0	1194	0	0	3281	0	0	2255	0
Satd. Flow (RTOR)			54		45			42			3	
Lane Group Flow (vph)	0	196	54	0	152	0	0	1837	0	0	1261	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		7.0	15.0		15.0	15.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0		10.0	19.0		19.0	19.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%	0.0%	11.1%	71.1%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0		7.0	60.0		50.0	50.0	
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)	1.0	1.0	1.0	1.0	1.0		0.0	1.0		1.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	13.0	13.0	13.0	13.0	13.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		19.2	19.2		19.2			62.8			62.8	
Actuated g/C Ratio		0.21	0.21		0.21			0.70			0.70	
v/c Ratio		0.67	0.14		0.52			0.80			0.80	
Control Delay		44.3	9.0		28.6			12.8			14.1	
Queue Delay		0.0	0.0		0.0			1.2			0.0	
Total Delay		44.3	9.0		28.6			14.0			14.1	
LOS		D	A		C			B			B	
Approach Delay		36.7			28.6			14.0			14.1	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)		105	0		54			296			181	
Queue Length 95th (ft)		171	28		111			471			m295	
Internal Link Dist (ft)		250			1316			528			4196	
Turn Bay Length (ft)												
Base Capacity (vph)		337	428		326			2302			1574	
Starvation Cap Reductn		0	0		0			248			0	
Spillback Cap Reductn		0	0		0			0			0	
Storage Cap Reductn		0	0		0			0			0	
Reduced v/c Ratio		0.58	0.13		0.47			0.89			0.80	

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 10 (11%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 104.7%

ICU Level of Service G

Analysis Period (min) 15

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

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	1200	380	620	750	270	520
Satd. Flow (prot)	3355	0	1863	1583	1770	3539
Flt Permitted	0.963				0.143	
Satd. Flow (perm)	3355	0	1863	1583	266	3539
Satd. Flow (RTOR)	64			737		
Lane Group Flow (vph)	1717	0	674	815	293	565
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Minimum Initial (s)	10.0		20.0	20.0	5.0	20.0
Minimum Split (s)	14.0		25.0	25.0	8.0	25.0
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	0.0%	33.3%	33.3%	16.7%	50.0%
Maximum Green (s)	41.0		25.0	25.0	12.0	40.0
Yellow Time (s)	3.0		4.0	4.0	3.0	4.0
All-Red Time (s)	1.0		1.0	1.0	0.0	1.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	4.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	C-Min	None	C-Min
Act Effct Green (s)	41.0		25.0	25.0	42.0	40.0
Actuated g/C Ratio	0.46		0.28	0.28	0.47	0.44
v/c Ratio	1.10		1.30	0.84	0.90	0.36
Control Delay	73.3		179.2	13.3	51.9	17.4
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	73.3		179.2	13.3	51.9	17.4
LOS	E		F	B	D	B
Approach Delay	73.3		88.4			29.1
Approach LOS	E		F			C
Queue Length 50th (ft)	~304		~496	34	109	107
Queue Length 95th (ft)	#696		#707	#284	#260	148
Internal Link Dist (ft)	4196		2511			1627
Turn Bay Length (ft)					248	
Base Capacity (vph)	1563		518	972	325	1573
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	1.10		1.30	0.84	0.90	0.36

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.30  
 Intersection Signal Delay: 69.5  
 Intersection LOS: E  
 Intersection Capacity Utilization 104.6%  
 ICU Level of Service G

Analysis Period (min) 15

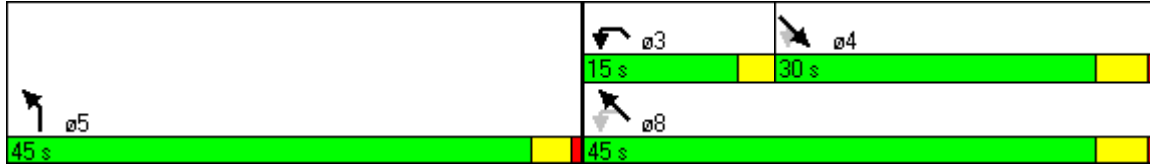
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	50	60	30	150	30	330	10	740	450	360	620	50
Satd. Flow (prot)	1770	1768	0	1681	1713	1583	1770	3539	1583	1770	3500	0
Flt Permitted	0.950			0.950	0.968		0.950			0.950		
Satd. Flow (perm)	1770	1768	0	1681	1713	1583	1770	3539	1583	1770	3500	0
Satd. Flow (RTOR)		23				209			489		11	
Lane Group Flow (vph)	54	98	0	98	98	359	11	804	489	391	728	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Minimum Initial (s)	15.0	15.0		5.0	5.0		5.0					
Minimum Split (s)	21.0	21.0		9.0	9.0		9.0					
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	0.0%
Maximum Green (s)	10.0	10.0		18.0	18.0		5.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		3.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effct Green (s)	10.0	10.0		18.0	18.0	39.0	5.0	27.0	27.0	20.2	40.2	
Actuated g/C Ratio	0.11	0.11		0.20	0.20	0.43	0.06	0.30	0.30	0.22	0.45	
v/c Ratio	0.27	0.45		0.29	0.29	0.45	0.11	0.76	0.60	0.98	0.46	
Control Delay	40.7	36.1		33.4	33.2	6.3	43.1	34.0	5.9	80.6	15.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	102.3	2.3	
Total Delay	40.7	36.1		33.4	33.2	6.3	43.1	34.0	5.9	182.9	17.8	
LOS	D	D		C	C	A	D	C	A	F	B	
Approach Delay		37.8			15.9			23.5			75.5	
Approach LOS		D			B			C			E	
Queue Length 50th (ft)	29	40		50	50	33	6	216	0	~273	138	
Queue Length 95th (ft)	64	89		97	97	73	23	286	72	m#414	m170	
Internal Link Dist (ft)		362			686			885			165	
Turn Bay Length (ft)	90			380		190	50		900	130		
Base Capacity (vph)	197	217		336	343	804	98	1062	817	397	1569	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	86	677	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.45		0.29	0.29	0.45	0.11	0.76	0.60	1.26	0.82	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.48

Intersection Signal Delay: 41.4

Intersection LOS: D

Intersection Capacity Utilization 72.0%

ICU Level of Service C

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Satd. Flow (RTOR)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	21.0	8.0	10.0
Total Split (s)	22.0	9.0	12.0
Total Split (%)	24%	10%	13%
Maximum Green (s)	16.0	5.0	7.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Queue Length 50th (ft)			
Queue Length 95th (ft)			
Internal Link Dist (ft)			
Turn Bay Length (ft)			
Base Capacity (vph)			
Starvation Cap Reductn			
Spillback Cap Reductn			
Storage Cap Reductn			
Reduced v/c Ratio			
<b>Intersection Summary</b>			

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

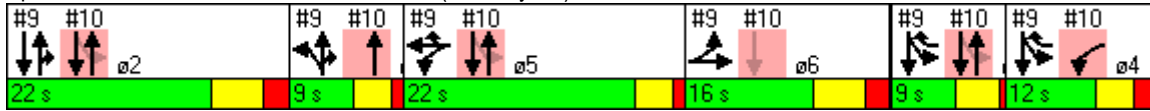
Queue shown is maximum after two cycles.

# 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: 9: Mountain Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations											
Volume (vph)	120	110	1060	60	80	910					
Satd. Flow (prot)	1698	0	3511	0	1770	3539					
Flt Permitted	0.975				0.129						
Satd. Flow (perm)	1698	0	3511	0	240	3539					
Satd. Flow (RTOR)	40		11								
Lane Group Flow (vph)	250	0	1217	0	87	989					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5	6					
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0						9.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	0.0%	68.9%	0.0%	58.9%	58.9%	10%	24%	10%	24%	18%
Maximum Green (s)	7.0						5.0	16.0	5.0	18.0	10.0
Yellow Time (s)	3.0						3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						1.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	C-Max	None	None	None
Act Effct Green (s)	7.0		58.0		39.4	57.0					
Actuated g/C Ratio	0.08		0.64		0.44	0.63					
v/c Ratio	1.48		0.54		0.83	0.44					
Control Delay	272.7		2.8		75.8	4.9					
Queue Delay	37.0		0.3		0.0	0.5					
Total Delay	309.7		3.1		75.8	5.4					
LOS	F		A		E	A					
Approach Delay	309.7		3.1			11.1					
Approach LOS	F		A			B					
Queue Length 50th (ft)	~177		32		22	60					
Queue Length 95th (ft)	#327		36		#143	77					
Internal Link Dist (ft)	127		165			133					
Turn Bay Length (ft)											
Base Capacity (vph)	169		2267		105	2241					
Starvation Cap Reductn	0		430		0	0					
Spillback Cap Reductn	9		0		0	717					
Storage Cap Reductn	0		0		0	0					
Reduced v/c Ratio	1.56		0.66		0.83	0.65					

Intersection Summary

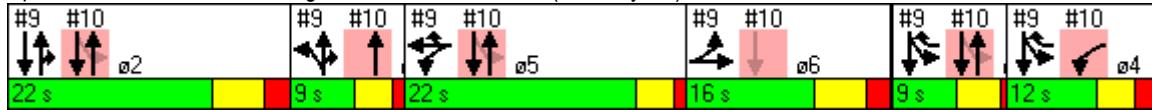
Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.48  
 Intersection Signal Delay: 36.6  
 Intersection Capacity Utilization 69.6%  
 Intersection LOS: D  
 ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

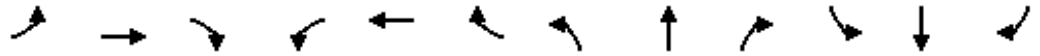
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↖			↕	
Volume (vph)	110	20	250	0	10	10	230	870	0	10	650	70
Satd. Flow (prot)	0	1786	1583	0	1736	0	1770	1863	0	0	1837	0
Flt Permitted		0.744					0.264				0.985	
Satd. Flow (perm)	0	1386	1583	0	1736	0	492	1863	0	0	1811	0
Satd. Flow (RTOR)			272		11						8	
Lane Group Flow (vph)	0	142	272	0	22	0	250	946	0	0	794	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		3.0	15.0		15.0	15.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0		6.5	21.0		21.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	0.0%	17.4%	76.0%	0.0%	58.6%	58.6%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		15.0	73.1		55.0	55.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	4.2		4.2	4.2	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.1	1.8		1.8	1.8	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	1.5	1.5	1.5	1.5	1.5		1.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None		None	None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		18.8	18.8		18.8		60.4	57.5			44.6	
Actuated g/C Ratio		0.21	0.21		0.21		0.69	0.66			0.51	
v/c Ratio		0.48	0.49		0.06		0.52	0.77			0.86	
Control Delay		40.1	8.0		23.2		8.6	15.2			28.5	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		40.1	8.0		23.2		8.6	15.2			28.5	
LOS		D	A		C		A	B			C	
Approach Delay		19.0			23.3			13.8			28.5	
Approach LOS		B			C			B			C	
Queue Length 50th (ft)		71	0		5		41	308			357	
Queue Length 95th (ft)		150	69		27		70	489			549	
Internal Link Dist (ft)		550			290			1200			2587	
Turn Bay Length (ft)							100					
Base Capacity (vph)		318	573		407		530	1329			1035	
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		0.45	0.47		0.05		0.47	0.71			0.77	

Intersection Summary

Cycle Length: 104.1  
 Actuated Cycle Length: 87.5  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.86



Route 7 Corridor - Gap Analysis Study  
12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
Timing Plan: PM Peak Hour



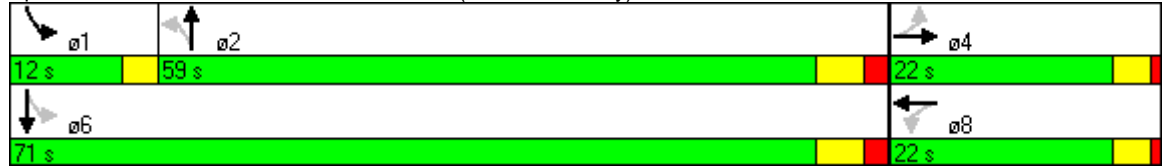
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖		↗	↖	
Volume (vph)	10	130	90	10	30	30	70	810	20	40	500	10
Satd. Flow (prot)	0	1760	0	0	1742	0	1770	1855	0	1770	1857	0
Flt Permitted		0.989			0.958		0.457			0.092		
Satd. Flow (perm)	0	1745	0	0	1681	0	851	1855	0	171	1857	0
Satd. Flow (RTOR)		31			33			2			3	
Lane Group Flow (vph)	0	250	0	0	77	0	76	902	0	43	554	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	18.0	18.0		18.0	18.0		30.0	30.0		5.0	30.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		36.0	36.0		8.0	36.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Split (%)	23.7%	23.7%	0.0%	23.7%	23.7%	0.0%	63.4%	63.4%	0.0%	12.9%	76.3%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		53.0	53.0		9.0	65.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		0.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	12.0	12.0		12.0	12.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		18.2			18.2		43.7	43.7		55.1	52.0	
Actuated g/C Ratio		0.23			0.23		0.54	0.54		0.69	0.65	
v/c Ratio		0.60			0.19		0.16	0.89		0.19	0.46	
Control Delay		33.2			20.0		9.6	28.7		5.7	8.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		33.2			20.0		9.6	28.7		5.7	8.2	
LOS		C			B		A	C		A	A	
Approach Delay		33.2			20.0			27.2			8.0	
Approach LOS		C			B			C			A	
Queue Length 50th (ft)		102			18		17	366		6	120	
Queue Length 95th (ft)		198			58		39	572		14	178	
Internal Link Dist (ft)		407			189			2835			1876	
Turn Bay Length (ft)							94			220		
Base Capacity (vph)		420			407		505	1102		285	1299	
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		0.60			0.19		0.15	0.82		0.15	0.43	

Intersection Summary

Cycle Length: 93  
 Actuated Cycle Length: 80.4  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.89

Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	50	30	670	20	10	840
Satd. Flow (prot)	1715	0	1855	0	0	1861
Flt Permitted	0.970					0.993
Satd. Flow (perm)	1715	0	1855	0	0	1850
Satd. Flow (RTOR)			3			
Lane Group Flow (vph)	87	0	750	0	0	924
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Minimum Initial (s)	19.0		10.0		5.0	10.0
Minimum Split (s)	23.0		15.9		8.0	15.9
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Split (%)	33.9%	0.0%	54.9%	0.0%	11.3%	66.1%
Maximum Green (s)	20.0		33.0		5.0	41.0
Yellow Time (s)	3.0		4.4		3.0	4.4
All-Red Time (s)	1.0		1.5		0.0	1.5
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		2.5		0.2	2.5
Recall Mode	None		Min		Min	Min
Walk Time (s)	14.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	19.3		28.2			37.4
Actuated g/C Ratio	0.30		0.47			0.62
v/c Ratio	0.17		0.86			0.81
Control Delay	20.5		28.4			18.8
Queue Delay	0.0		0.0			0.0
Total Delay	20.5		28.4			18.8
LOS	C		C			B
Approach Delay	20.5		28.4			18.8
Approach LOS	C		C			B
Queue Length 50th (ft)	29		269			292
Queue Length 95th (ft)	62		#485			#561
Internal Link Dist (ft)	592		4303			332
Turn Bay Length (ft)						
Base Capacity (vph)	528		963			1192
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.16		0.78			0.78

Intersection Summary

Cycle Length: 70.9  
 Actuated Cycle Length: 60.4  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.86

Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 76.3%

ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	30	30	10	10	20	30	10	810	30	20	600	30
Satd. Flow (prot)	0	1789	0	0	1722	0	0	1852	0	0	1848	0
Flt Permitted		0.856			0.950			0.992			0.965	
Satd. Flow (perm)	0	1564	0	0	1649	0	0	1839	0	0	1787	0
Satd. Flow (RTOR)								4			5	
Lane Group Flow (vph)	0	77	0	0	66	0	0	924	0	0	707	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	22.0	22.0		22.0	22.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		25.0	25.0		25.0	25.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	34.5%	34.5%	0.0%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)	17.0	17.0		17.0	17.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		22.7			22.7			47.8			47.8	
Actuated g/C Ratio		0.31			0.31			0.77			0.77	
v/c Ratio		0.16			0.13			0.65			0.51	
Control Delay		23.1			22.7			12.5			9.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.1			22.7			12.5			9.3	
LOS		C			C			B			A	
Approach Delay		23.1			22.7			12.5			9.3	
Approach LOS		C			C			B			A	
Queue Length 50th (ft)		29			24			321			201	
Queue Length 95th (ft)		64			56			509			313	
Internal Link Dist (ft)		138			187			212			697	
Turn Bay Length (ft)												
Base Capacity (vph)		532			561			1418			1378	
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		0.14			0.12			0.65			0.51	

Intersection Summary

Cycle Length: 84  
 Actuated Cycle Length: 62.2  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.65

Intersection Signal Delay: 12.1	Intersection LOS: B
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT			TT	T	T
Volume (vph)	720	50	60	860	580	450
Satd. Flow (prot)	3417	0	0	3529	1863	1583
Flt Permitted	0.955			0.707		
Satd. Flow (perm)	3417	0	0	2502	1863	1583
Satd. Flow (RTOR)	8					489
Lane Group Flow (vph)	837	0	0	1000	630	489
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Minimum Initial (s)	18.0		3.0	15.0	15.0	18.0
Minimum Split (s)	27.0		7.0	21.0	21.0	27.0
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	0.0%	7.8%	64.4%	56.7%	35.6%
Maximum Green (s)	27.0		3.0	52.0	45.0	27.0
Yellow Time (s)	3.0		3.0	4.0	4.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		0.2	2.5	2.5	2.0
Recall Mode	None		Max	Min	Min	None
Walk Time (s)	12.0					12.0
Flash Dont Walk (s)	1.0					1.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	22.9			36.4	29.1	58.3
Actuated g/C Ratio	0.32			0.51	0.41	0.82
v/c Ratio	0.75			0.77	0.82	0.35
Control Delay	27.7			18.1	28.1	0.8
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	27.7			18.1	28.1	0.8
LOS	C			B	C	A
Approach Delay	27.7			18.1	16.2	
Approach LOS	C			B	B	
Queue Length 50th (ft)	161			142	230	0
Queue Length 95th (ft)	293			212	382	7
Internal Link Dist (ft)	1007			425	2009	
Turn Bay Length (ft)	180					
Base Capacity (vph)	1257			1531	979	1405
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	0.67			0.65	0.64	0.35

Intersection Summary




Cycle Length: 90  
 Actuated Cycle Length: 70.7  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.82

Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour

Intersection Signal Delay: 20.1  
 Intersection Capacity Utilization 92.3%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service F

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

 ø2	 ø4
58 s	32 s
 ø5  ø6	
7 s	51 s

Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	10	30	30	1570	1020	60	
Satd. Flow (prot)	1770	1583	1770	3539	3511	0	
Flt Permitted	0.950		0.189				
Satd. Flow (perm)	1770	1583	352	3539	3511	0	
Satd. Flow (RTOR)		33			10		
Lane Group Flow (vph)	11	33	33	1707	1174	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0		5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0		23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	0.0%	28%
Maximum Green (s)	24.0	24.0	8.0	40.0	40.0		19.9
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0		0.1
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0	5.0	5.0		2.0
Recall Mode	None	None	None	C-Min	C-Min		None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8		
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70		
v/c Ratio	0.02	0.07	0.09	0.69	0.48		
Control Delay	21.4	8.4	6.1	17.4	1.9		
Queue Delay	0.0	0.0	0.0	0.1	0.0		
Total Delay	21.4	8.4	6.1	17.4	1.9		
LOS	C	A	A	B	A		
Approach Delay	11.7			17.2	1.9		
Approach LOS	B			B	A		
Queue Length 50th (ft)	4	0	6	436	16		
Queue Length 95th (ft)	16	20	16	#617	19		
Internal Link Dist (ft)	408			1795	86		
Turn Bay Length (ft)			80				
Base Capacity (vph)	511	481	398	2461	2444		
Starvation Cap Reductn	0	0	0	0	0		
Spillback Cap Reductn	0	0	0	92	0		
Storage Cap Reductn	0	0	0	0	0		
Reduced v/c Ratio	0.02	0.07	0.08	0.72	0.48		

Intersection Summary

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated

Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	10	10	1550	30	10	1070	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539	
Flt Permitted	0.950				0.075		
Satd. Flow (perm)	1770	1583	3529	0	140	3539	
Satd. Flow (RTOR)		11	3				
Lane Group Flow (vph)	11	11	1718	0	11	1163	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Minimum Initial (s)	5.0	5.0	15.0		7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0		10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	0.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	0.0%	13.4%	52.9%	34%
Maximum Green (s)	19.9	19.9	40.0		8.0	40.0	24.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0		0.1	1.0	1.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0	2.0
Recall Mode	None	None	C-Min		None	C-Min	None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	16.9	16.9	57.8		61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70		0.74	0.70	
v/c Ratio	0.03	0.03	0.70		0.05	0.47	
Control Delay	20.9	11.4	6.7		6.3	12.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.9	11.4	6.7		6.3	12.1	
LOS	C	B	A		A	B	
Approach Delay	16.1		6.7			12.0	
Approach LOS	B		A			B	
Queue Length 50th (ft)	4	0	42		2	229	
Queue Length 95th (ft)	16	12	#598		8	298	
Internal Link Dist (ft)	204		86			664	
Turn Bay Length (ft)							
Base Capacity (vph)	530	482	2454		261	2461	
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	0.02	0.02	0.70		0.04	0.47	

**Intersection Summary**

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	20	40	1550	30	130	1080
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.093	
Satd. Flow (perm)	1770	1583	3529	0	173	3539
Satd. Flow (RTOR)		43	3			
Lane Group Flow (vph)	22	43	1718	0	141	1174
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	5.0	5.0	15.0		4.0	15.0
Minimum Split (s)	23.0	23.0	19.0		7.1	19.0
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	0.0%	11.5%	61.4%
Maximum Green (s)	30.0	30.0	40.0		7.0	50.1
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		0.1	1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	Min	Min	Min		None	None
Walk Time (s)	18.0	18.0				
Flash Dont Walk (s)	1.0	1.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	5.5	5.5	40.0		49.9	49.0
Actuated g/C Ratio	0.09	0.09	0.64		0.80	0.78
v/c Ratio	0.14	0.24	0.76		0.49	0.42
Control Delay	28.6	13.3	11.0		11.0	2.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	28.6	13.3	11.0		11.0	2.8
LOS	C	B	B		B	A
Approach Delay	18.5		11.0			3.7
Approach LOS	B		B			A
Queue Length 50th (ft)	8	0	195		7	46
Queue Length 95th (ft)	27	26	318		47	76
Internal Link Dist (ft)	336		3518			2397
Turn Bay Length (ft)					80	
Base Capacity (vph)	611	574	2262		311	2786
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	0.07	0.76		0.45	0.42

Intersection Summary

Cycle Length: 88.1  
 Actuated Cycle Length: 62.5  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.76

Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)  
 Timing Plan: PM Peak Hour
























Intersection Signal Delay: 8.0                                      Intersection LOS: A  
 Intersection Capacity Utilization 65.2%                            ICU Level of Service C  
 Analysis Period (min) 15

Splits and Phases:    18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 1: Grist Mill Rd & Rt 7 (Main Ave)

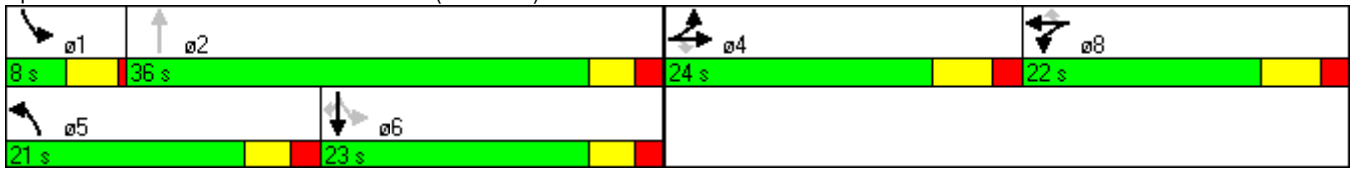
No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1390	80	600	30	60	20	330	440	30	20	570	1480
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		175	0		0	60		0
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.990				0.850
Flt Protected	0.950	0.957			0.983		0.950			0.950		
Satd. Flow (prot)	1681	1694	1583	0	1831	1583	1770	1844	0	1770	1863	1583
Flt Permitted	0.950	0.957			0.983		0.950			0.475		
Satd. Flow (perm)	1681	1694	1583	0	1831	1583	1770	1844	0	885	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			591			22		4				684
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1016			338			851				1681
Travel Time (s)		23.1			7.7			19.3				38.2
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
Adj. Flow (vph)	1511	87	652	33	65	22	359	478	33	22	620	1609
Shared Lane Traffic (%)	47%											
Lane Group Flow (vph)	801	797	652	0	98	22	359	511	0	22	620	1609
Turn Type	Split		Perm	Split		Perm	Prot			pm+pt		Perm
Protected Phases	4	4		8	8		5			1	6	
Permitted Phases			4			8		2		6		6
Total Split (s)	24.0	24.0	24.0	22.0	22.0	22.0	21.0	36.0	0.0	8.0	23.0	23.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	4.0	5.0	5.0
Act Effct Green (s)	18.0	18.0	18.0		10.7	10.7	21.3	40.1		24.9	18.0	18.0
Actuated g/C Ratio	0.20	0.20	0.20		0.12	0.12	0.24	0.45		0.28	0.20	0.20
v/c Ratio	2.38	2.35	0.83		0.45	0.11	0.86	0.62		0.07	1.66	1.86
Control Delay	652.8	638.2	15.2		43.1	15.4	55.4	25.3		23.2	332.3	410.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	652.8	638.2	15.2		43.1	15.4	55.4	25.3		23.2	332.3	410.3
LOS	F	F	B		D	B	E	C		C	F	F
Approach Delay		462.9			38.0			37.7			385.1	
Approach LOS		F			D			D			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.38  
 Intersection Signal Delay: 354.3  
 Intersection Capacity Utilization 130.8%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study  
 2: I-Park Dr & Rt 7 (Main Ave)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕	↕	↖	↕	↕
Volume (vph)	20	20	50	360	70	160	180	1420	160	100	1550	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	125		0	390		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.926				0.850		0.985			0.994	
Flt Protected		0.989			0.960		0.950			0.950		
Satd. Flow (prot)	0	1706	0	0	1788	1583	1770	3486	0	1770	3518	0
Flt Permitted		0.742			0.725		0.098			0.106		
Satd. Flow (perm)	0	1280	0	0	1350	1583	183	3486	0	197	3518	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54				76		12			4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		254			236			1681			876	
Travel Time (s)		5.8			5.4			38.2			19.9	
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
Adj. Flow (vph)	22	22	54	391	76	174	196	1543	174	109	1685	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	467	174	196	1717	0	109	1761	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	12.0	21.0	0.0	12.0	21.0	0.0
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	5.5	4.0
Act Effct Green (s)		29.7			29.7	29.7	51.8	41.9		46.5	37.8	
Actuated g/C Ratio		0.33			0.33	0.33	0.58	0.47		0.52	0.42	
v/c Ratio		0.21			1.05	0.30	0.76	1.05		0.52	1.19	
Control Delay		12.5			87.3	14.2	20.5	49.7		19.8	119.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		12.5			87.3	14.2	20.5	49.7		19.8	119.2	
LOS		B			F	B	C	D		B	F	
Approach Delay		12.5			67.4			46.7			113.4	
Approach LOS		B			E			D			F	

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.19  
 Intersection Signal Delay: 76.5  
 Intersection Capacity Utilization 97.7%  
 Analysis Period (min) 15  
 Intersection LOS: E  
 ICU Level of Service F

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)

 ø1	 ø2	 ø4	 ø11
12 s	21 s	35 s	22 s
 ø5	 ø6	 ø8	
12 s	21 s	35 s	

Lane Group		ø11
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases		11
Permitted Phases		
Total Split (s)		22.0
Total Lost Time (s)		
Act Effect Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
<b>Intersection Summary</b>		

Route 7 Corridor - Gap Analysis Study  
 3: Foxboro Drive & Rt 7 (Main Ave)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	60	30	1640	20	10	1640
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.998			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3532	0	1770	3539
Flt Permitted	0.950				0.089	
Satd. Flow (perm)	1770	1583	3532	0	166	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		33	2			
Link Speed (mph)	30		30			30
Link Distance (ft)	504		876			1254
Travel Time (s)	11.5		19.9			28.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	33	1783	22	11	1783
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	33	1805	0	11	1783
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Act Effct Green (s)	8.6	8.6	72.9		76.6	75.0
Actuated g/C Ratio	0.10	0.10	0.81		0.85	0.83
v/c Ratio	0.38	0.18	0.63		0.04	0.61
Control Delay	44.4	15.4	6.7		2.0	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.4	15.4	6.7		2.0	4.7
LOS	D	B	A		A	A
Approach Delay	34.6		6.7			4.7
Approach LOS	C		A			A

Intersection Summary

Area Type:	Other
Cycle Length:	90.1
Actuated Cycle Length:	90.1
Offset:	18 (20%), Referenced to phase 2:NBT, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	6.4
Intersection LOS:	A
Intersection Capacity Utilization:	60.1%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	70	50	50	1570	1570	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.944				0.991	
Flt Protected	0.972		0.950			
Satd. Flow (prot)	1709	0	1770	3539	3507	0
Flt Permitted	0.972		0.065			
Satd. Flow (perm)	1709	0	121	3539	3507	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	37				10	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1368			1254	426	
Travel Time (s)	31.1			28.5	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	54	54	1707	1707	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	130	0	54	1707	1816	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Total Split (s)	29.0	0.0	15.0	65.0	50.0	0.0
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Act Effct Green (s)	20.0		67.0	66.0	59.5	
Actuated g/C Ratio	0.21		0.71	0.70	0.63	
v/c Ratio	0.33		0.31	0.69	0.82	
Control Delay	24.9		8.6	9.9	17.5	
Queue Delay	0.0		0.0	0.0	33.7	
Total Delay	24.9		8.6	9.9	51.2	
LOS	C		A	A	D	
Approach Delay	24.9			9.8	51.2	
Approach LOS	C			A	D	

**Intersection Summary**

Area Type:	Other
Cycle Length:	94
Actuated Cycle Length:	94
Offset:	54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	30.6
Intersection Capacity Utilization:	69.9%
Analysis Period (min):	15
Intersection LOS:	C
ICU Level of Service:	C

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
5: Comm. Dr. & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↕	
Volume (vph)	40	10	50	160	10	60	40	1560	40	30	1460	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.932			0.872			0.996			0.999	
Flt Protected		0.980		0.950				0.999			0.999	
Satd. Flow (prot)	0	1701	0	1770	1624	0	0	3522	0	0	3532	0
Flt Permitted		0.870		0.674				0.841			0.852	
Satd. Flow (perm)	0	1510	0	1255	1624	0	0	2965	0	0	3012	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		47			65			5			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			796			426			1406	
Travel Time (s)		5.5			18.1			9.7			32.0	
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
Adj. Flow (vph)	43	11	54	174	11	65	43	1696	43	33	1587	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	174	76	0	0	1782	0	0	1631	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	59.0	59.0	0.0	6.0	65.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Act Effct Green (s)		20.2		20.2	20.2			61.8			61.8	
Actuated g/C Ratio		0.22		0.22	0.22			0.69			0.69	
v/c Ratio		0.29		0.62	0.18			0.87			0.79	
Control Delay		19.5		42.1	10.7			17.6			13.3	
Queue Delay		0.0		0.0	0.0			30.6			0.0	
Total Delay		19.5		42.1	10.7			48.2			13.3	
LOS		B		D	B			D			B	
Approach Delay		19.5			32.6			48.2			13.3	
Approach LOS		B			C			D			B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.87
Intersection Signal Delay:	31.2
Intersection LOS:	C
Intersection Capacity Utilization:	96.5%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
6: Self-Storage Driveway & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: AM Peak Hour









Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	20	0	10	10	1430	50	100	1630	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		0	40		0	50		0	130		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Fr <sub>t</sub>					0.850			0.995				0.999
Fl <sub>t</sub> Protected				0.950						0.950		
Satd. Flow (prot)	1863	1863	0	1770	1583	0	0	3522	0	1770	3536	0
Fl <sub>t</sub> Permitted				0.833				0.934		0.116		
Satd. Flow (perm)	1863	1863	0	1552	1583	0	0	3289	0	216	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)				488				4			1	
Link Speed (mph)		30		30				30			30	
Link Distance (ft)		188		164				1406			608	
Travel Time (s)		4.3		3.7				32.0			13.8	
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
Adj. Flow (vph)	0	0	0	22	0	11	11	1554	54	109	1772	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	22	11	0	0	1619	0	109	1783	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Act Effct Green (s)				8.0	8.0			76.2		88.8	88.6	
Actuated g/C Ratio				0.08	0.08			0.77		0.90	0.90	
v/c Ratio				0.17	0.02			0.64		0.35	0.56	
Control Delay				45.8	0.1			7.6		4.1	2.8	
Queue Delay				0.0	0.0			0.0		0.0	0.3	
Total Delay				45.8	0.1			7.6		4.1	3.1	
LOS				D	A			A		A	A	
Approach Delay					30.6			7.6			3.1	
Approach LOS					C			A			A	

Intersection Summary

Area Type: Other  
 Cycle Length: 98.6  
 Actuated Cycle Length: 98.6  
 Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.64  
 Intersection Signal Delay: 5.4  
 Intersection Capacity Utilization 97.7%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service F

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4	 ø11
11.1 s	45.5 s	16 s	26 s
 ø6		 ø8	
56.6 s		16 s	

Lane Group ø11	
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	26.0
Total Lost Time (s)	
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Route 7 Corridor - Gap Analysis Study  
 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

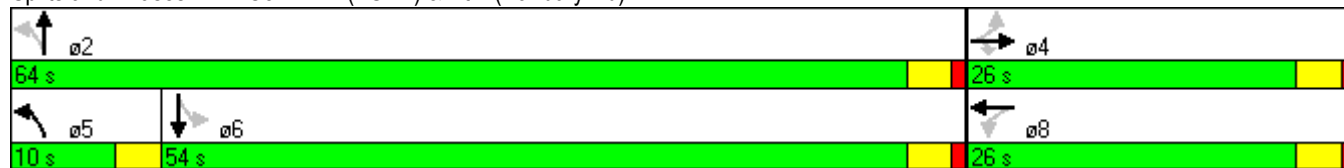


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Volume (vph)	10	10	10	290	110	70	70	1370	60	30	1460	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.850		0.980			0.994			0.991	
Flt Protected		0.976			0.970			0.998			0.999	
Satd. Flow (prot)	0	1818	1583	0	1771	0	0	3511	0	0	3504	0
Flt Permitted		0.880			0.799			0.663			0.878	
Satd. Flow (perm)	0	1639	1583	0	1459	0	0	2332	0	0	3079	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11		9			10			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			1396			608			4276	
Travel Time (s)		7.5			31.7			13.8			97.2	
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
Adj. Flow (vph)	11	11	11	315	120	76	76	1489	65	33	1587	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	11	0	511	0	0	1630	0	0	1729	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)		22.0	22.0		22.0			60.0			60.0	
Actuated g/C Ratio		0.24	0.24		0.24			0.67			0.67	
v/c Ratio		0.05	0.03		1.41			1.05			0.84	
Control Delay		26.6	14.1		228.5			53.0			15.3	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		26.6	14.1		228.5			53.0			15.3	
LOS		C	B		F			D			B	
Approach Delay		22.5			228.5			53.0			15.3	
Approach LOS		C			F			D			B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.41
Intersection Signal Delay:	59.0
Intersection LOS:	E
Intersection Capacity Utilization:	129.0%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



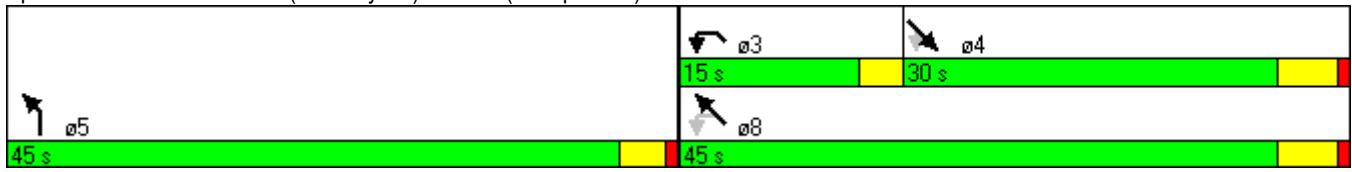


Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	930	360	600	1130	600	750
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	248	
Storage Lanes	2	0		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	0.95
Frt	0.958			0.850		
Flt Protected	0.965				0.950	
Satd. Flow (prot)	3341	0	1863	1583	1770	3539
Flt Permitted	0.965				0.143	
Satd. Flow (perm)	3341	0	1863	1583	266	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	87			846		
Link Speed (mph)	30		30			30
Link Distance (ft)	4276		2591			1707
Travel Time (s)	97.2		58.9			38.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1011	391	652	1228	652	815
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1402	0	652	1228	652	815
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Act Effct Green (s)	40.3		25.0	25.0	42.7	40.7
Actuated g/C Ratio	0.45		0.28	0.28	0.47	0.45
v/c Ratio	0.91		1.26	1.17	1.93	0.51
Control Delay	25.5		162.0	98.6	449.3	19.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	25.5		162.0	98.6	449.3	19.2
LOS	C		F	F	F	B
Approach Delay	25.5		120.6			210.4
Approach LOS	C		F			F

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.93  
 Intersection Signal Delay: 120.2  
 Intersection Capacity Utilization 113.5%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	50	30	460	90	250	20	600	230	410	820	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	380		190	50		900	130		0
Storage Lanes	1		0	1		1	1		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Frt		0.943				0.850			0.850		0.991	
Flt Protected	0.950			0.950	0.967		0.950			0.950		
Satd. Flow (prot)	1770	1757	0	1681	1711	1583	1770	3539	1583	3433	3507	0
Flt Permitted	0.950			0.950	0.967		0.950			0.950		
Satd. Flow (perm)	1770	1757	0	1681	1711	1583	1770	3539	1583	3433	3507	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		28				233			250			8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		442			766			965				245
Travel Time (s)		10.0			17.4			21.9				5.6
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
Adj. Flow (vph)	54	54	33	500	98	272	22	652	250	446	891	54
Shared Lane Traffic (%)				41%								
Lane Group Flow (vph)	54	87	0	295	303	272	22	652	250	446	945	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												2
Minimum Initial (s)	15.0	15.0		5.0	5.0		5.0					
Minimum Split (s)	21.0	21.0		9.0	9.0		11.0					
Total Split (s)	16.0	16.0	0.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	0.0%
Maximum Green (s)	10.0	10.0		18.0	18.0		3.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		4.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		2.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	6.0	6.0	6.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effect Green (s)	10.1	10.1		18.1	18.1	36.2	3.0	25.2	25.2	17.1	37.2	
Actuated g/C Ratio	0.12	0.12		0.21	0.21	0.42	0.03	0.29	0.29	0.20	0.43	
v/c Ratio	0.26	0.38		0.84	0.85	0.34	0.35	0.64	0.39	0.66	0.63	
Control Delay	40.4	32.2		57.0	57.6	3.4	58.6	31.1	5.5	42.9	22.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	4.6	44.9	
Total Delay	40.4	32.2		57.0	57.6	3.4	58.6	31.1	5.5	47.5	67.5	
LOS	D	C		E	E	A	E	C	A	D	E	
Approach Delay		35.4			40.5			24.8			61.1	
Approach LOS		D			D			C			E	

Intersection Summary

Area Type: Other  
 Cycle Length: 90

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	21.0	8.0	10.0
Total Split (s)	22.0	9.0	12.0
Total Split (%)	24%	10%	13%
Maximum Green (s)	16.0	5.0	7.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	None	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

Actuated Cycle Length: 86.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 44.5	Intersection LOS: D
Intersection Capacity Utilization 63.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations	↵		↕↕		↵	↕↕					
Volume (vph)	50	50	870	30	50	1230					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95					
Frt	0.932		0.995								
Flt Protected	0.976				0.950						
Satd. Flow (prot)	1694	0	3522	0	1770	3539					
Flt Permitted	0.976				0.237						
Satd. Flow (perm)	1694	0	3522	0	441	3539					
Right Turn on Red		Yes		Yes							
Satd. Flow (RTOR)	43		6								
Link Speed (mph)	30		30			30					
Link Distance (ft)	207		245			213					
Travel Time (s)	4.7		5.6			4.8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	54	54	946	33	54	1337					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	108	0	979	0	54	1337					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0						11.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	0.0	62.0	0.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	0.0%	68.9%	0.0%	58.9%	58.9%	10%	24%	10%	24%	18%
Maximum Green (s)	7.0						3.0	16.0	5.0	18.0	10.0
Yellow Time (s)	3.0						4.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						2.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	6.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	None	None	None	None
Act Effct Green (s)	7.0		51.7		36.6	36.6					
Actuated g/C Ratio	0.08		0.60		0.42	0.42					
v/c Ratio	0.61		0.47		0.29	0.90					
Control Delay	41.9		2.9		13.1	26.0					
Queue Delay	1.2		0.3		0.0	58.6					
Total Delay	43.1		3.2		13.1	84.6					
LOS	D		A		B	F					
Approach Delay	43.1		3.2			81.8					
Approach LOS	D		A			F					

Intersection Summary

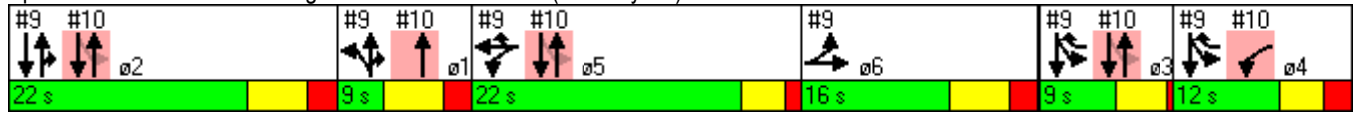
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 86.8  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.90

Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	1	95	920	15	145	1280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.866		0.998			
Flt Protected					0.950	
Satd. Flow (prot)	1613	0	3532	0	1770	1863
Flt Permitted					0.201	
Satd. Flow (perm)	1613	0	3532	0	374	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	103		3			
Link Speed (mph)	30		30			30
Link Distance (ft)	273		594			437
Travel Time (s)	6.2		13.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	103	1000	16	158	1391
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	1016	0	158	1391
Turn Type					pm+pt	
Protected Phases	6		2		1	1 2
Permitted Phases					1 2	
Minimum Initial (s)	5.0		15.0		5.0	
Minimum Split (s)	10.5		22.0		9.0	
Total Split (s)	10.5	0.0	38.5	0.0	21.0	59.5
Total Split (%)	15.0%	0.0%	55.0%	0.0%	30.0%	85.0%
Maximum Green (s)	5.0		32.5		17.0	
Yellow Time (s)	3.0		4.0		3.0	
All-Red Time (s)	2.5		2.0		1.0	
Total Lost Time (s)	5.5	4.0	6.0	4.0	4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		Max		Max	
Walk Time (s)	5.0		5.0		5.0	
Flash Dont Walk (s)	11.0		11.0		11.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	5.0		32.6		51.7	56.6
Actuated g/C Ratio	0.07		0.48		0.76	0.83
v/c Ratio	0.48		0.60		0.25	0.90
Control Delay	16.0		15.2		2.8	16.2
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	16.0		15.2		2.8	16.2
LOS	B		B		A	B
Approach Delay	16.0		15.2			14.8
Approach LOS	B		B			B

**Intersection Summary**

Area Type: Other  
 Cycle Length: 70

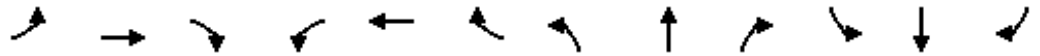
Actuated Cycle Length: 67.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 81.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 83: North Main St. & Route 7



Route 7 Corridor - Gap Analysis Study  
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↖			↕	↖
Volume (vph)	80	10	330	10	20	0	290	750	0	10	1040	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	100		0	0		0
Storage Lanes	0		1	0		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>			0.850									0.987
Fl <sub>t</sub> Protected		0.957			0.984		0.950					
Satd. Flow (prot)	0	1783	1583	0	1833	0	1770	1863	0	0	1839	0
Fl <sub>t</sub> Permitted		0.726			0.909		0.150				0.992	
Satd. Flow (perm)	0	1352	1583	0	1693	0	279	1863	0	0	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			283									8
Link Speed (mph)		30			30			30				30
Link Distance (ft)		630			370			1280				2667
Travel Time (s)		14.3			8.4			29.1				60.6
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
Adj. Flow (vph)	87	11	359	11	22	0	315	815	0	11	1130	120
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	359	0	33	0	315	815	0	0	1261	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2				6
Permitted Phases	4		4	8			2			6		
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Act Effct Green (s)		18.4	18.4		18.4		75.2	72.3				55.0
Actuated g/C Ratio		0.18	0.18		0.18		0.74	0.71				0.54
v/c Ratio		0.40	0.69		0.11		0.76	0.62				1.27
Control Delay		42.7	17.2		36.2		24.5	10.1				155.5
Queue Delay		0.0	0.0		0.0		0.0	0.0				0.0
Total Delay		42.7	17.2		36.2		24.5	10.1				155.5
LOS		D	B		D		C	B				F
Approach Delay		22.7			36.2			14.1				155.5
Approach LOS		C			D			B				F

Intersection Summary

Area Type:	Other
Cycle Length:	104.1
Actuated Cycle Length:	101.7
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.27
Intersection Signal Delay:	77.6
Intersection LOS:	E
Intersection Capacity Utilization	130.6%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Volume (vph)	20	50	60	60	230	60	80	640	0	30	930	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	94		0	220		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.938			0.977							0.997
Flt Protected		0.992			0.992		0.950			0.950		
Satd. Flow (prot)	0	1733	0	0	1805	0	1770	1863	0	1770	1857	0
Flt Permitted		0.867			0.927		0.124			0.220		
Satd. Flow (perm)	0	1515	0	0	1687	0	231	1863	0	410	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			10							3
Link Speed (mph)		30			30			30				30
Link Distance (ft)		487			269			2915				1956
Travel Time (s)		11.1			6.1			66.3				44.5
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
Adj. Flow (vph)	22	54	65	65	250	65	87	696	0	33	1011	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	380	0	87	696	0	33	1033	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Act Effct Green (s)		18.3			18.3		41.4	41.4		52.7	49.7	
Actuated g/C Ratio		0.23			0.23		0.53	0.53		0.67	0.64	
v/c Ratio		0.37			0.94		0.71	0.71		0.09	0.87	
Control Delay		23.9			66.0		47.4	17.8		4.2	20.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		23.9			66.0		47.4	17.8		4.2	20.9	
LOS		C			E		D	B		A	C	
Approach Delay		23.9			66.0			21.1			20.4	
Approach LOS		C			E			C			C	

Intersection Summary

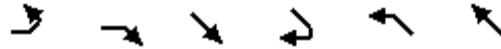
Area Type:	Other
Cycle Length:	93
Actuated Cycle Length:	78.2
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	28.2
Intersection LOS:	C
Intersection Capacity Utilization:	100.6%
ICU Level of Service:	G
Analysis Period (min):	15

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

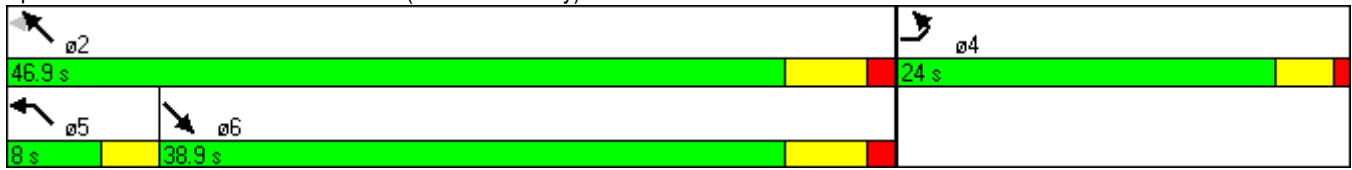


Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	40	30	950	90	40	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941		0.988			
Flt Protected	0.972					0.997
Satd. Flow (prot)	1704	0	1840	0	0	1857
Flt Permitted	0.972					0.400
Satd. Flow (perm)	1704	0	1840	0	0	745
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			9			
Link Speed (mph)	30		30			30
Link Distance (ft)	672		4383			412
Travel Time (s)	15.3		99.6			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	33	1033	98	43	739
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	1131	0	0	782
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Act Effct Green (s)	19.7		34.3			42.6
Actuated g/C Ratio	0.32		0.57			0.70
v/c Ratio	0.14		1.08			1.39
Control Delay	19.4		74.9			204.7
Queue Delay	0.0		0.0			0.0
Total Delay	19.4		74.9			204.7
LOS	B		E			F
Approach Delay	19.4		74.9			204.7
Approach LOS	B		E			F

Intersection Summary

















Area Type:	Other
Cycle Length:	70.9
Actuated Cycle Length:	60.7
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	1.39
Intersection Signal Delay:	123.8
Intersection LOS:	F
Intersection Capacity Utilization:	92.6%
ICU Level of Service:	F
Analysis Period (min):	15

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

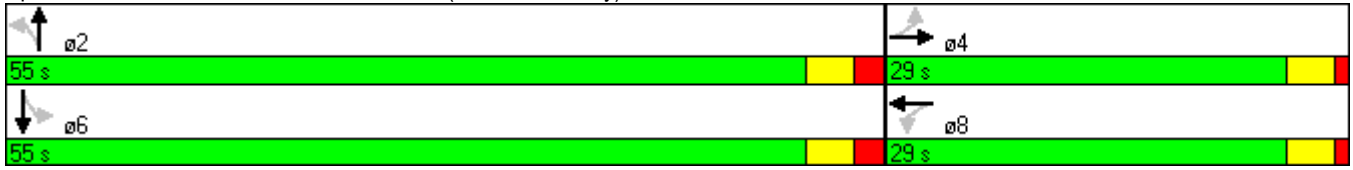
No Build Conditions (2030)  
 Timing Plan: AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	20	20	40	40	30	20	660	20	20	900	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961			0.963			0.996			0.996	
Flt Protected		0.979			0.982			0.999			0.999	
Satd. Flow (prot)	0	1753	0	0	1762	0	0	1853	0	0	1853	0
Flt Permitted		0.856			0.879			0.961			0.980	
Satd. Flow (perm)	0	1532	0	0	1577	0	0	1783	0	0	1818	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								3			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			267			292			777	
Travel Time (s)		5.0			6.1			6.6			17.7	
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
Adj. Flow (vph)	33	22	22	43	43	33	22	717	22	22	978	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	77	0	0	119	0	0	761	0	0	1033	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Act Effct Green (s)		25.1			25.1			49.5			49.5	
Actuated g/C Ratio		0.35			0.35			0.69			0.69	
v/c Ratio		0.14			0.22			0.61			0.82	
Control Delay		23.7			24.8			12.3			20.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.7			24.8			12.3			20.3	
LOS		C			C			B			C	
Approach Delay		23.7			24.8			12.3			20.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	84
Actuated Cycle Length:	71.4
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	17.6
Intersection LOS:	B
Intersection Capacity Utilization:	83.8%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	470	70	50	630	770	740
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180	0	270			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25	25	25			25
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	1.00
Frt	0.981					0.850
Flt Protected	0.958			0.996		
Satd. Flow (prot)	3396	0	0	3525	1863	1583
Flt Permitted	0.958			0.674		
Satd. Flow (perm)	3396	0	0	2385	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	19					804
Link Speed (mph)	30			30	30	
Link Distance (ft)	1087			505	2089	
Travel Time (s)	24.7			11.5	47.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	76	54	685	837	804
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	0	0	739	837	804
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Act Effct Green (s)	20.6			46.2	39.1	65.8
Actuated g/C Ratio	0.26			0.59	0.50	0.84
v/c Ratio	0.64			0.52	0.90	0.55
Control Delay	29.1			10.9	32.0	1.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	29.1			10.9	32.0	1.6
LOS	C			B	C	A
Approach Delay	29.1			10.9	17.1	
Approach LOS	C			B	B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	78
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.90
Intersection Signal Delay:	17.9
Intersection LOS:	B
Intersection Capacity Utilization:	80.3%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	60	40	20	970	1560	30	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	80			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25	25	25			25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	
Frt		0.850			0.997		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	3539	3529	0	
Flt Permitted	0.950		0.080				
Satd. Flow (perm)	1770	1583	149	3539	3529	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		43			3		
Link Speed (mph)	30			30	30		
Link Distance (ft)	488			1875	166		
Travel Time (s)	11.1			42.6	3.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	65	43	22	1054	1696	33	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	65	43	22	1054	1729	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	24.0
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Act Effct Green (s)	24.0	24.0	56.4	53.4	53.4		
Actuated g/C Ratio	0.29	0.29	0.68	0.64	0.64		
v/c Ratio	0.13	0.09	0.09	0.46	0.76		
Control Delay	22.8	7.8	6.8	11.8	7.0		
Queue Delay	0.0	0.0	0.0	0.0	0.0		
Total Delay	22.8	7.8	6.8	11.8	7.0		
LOS	C	A	A	B	A		
Approach Delay	16.8			11.7	7.0		
Approach LOS	B			B	A		

Intersection Summary

Area Type: Other  
 Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 9.1  
 Intersection Capacity Utilization 70.7%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service C

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	0	10	1010	20	0	1590	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Frt		0.850	0.997				
Flt Protected							
Satd. Flow (prot)	1863	1583	3529	0	1863	3539	
Flt Permitted							
Satd. Flow (perm)	1863	1583	3529	0	1863	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		224	3				
Link Speed (mph)	30		30			30	
Link Distance (ft)	284		166			744	
Travel Time (s)	6.5		3.8			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	11	1098	22	0	1728	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	11	1120	0	0	1728	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Total Split (s)	24.0	24.0	44.0	0.0	11.1	44.0	28.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Act Effct Green (s)		20.9	53.4			53.4	
Actuated g/C Ratio		0.25	0.64			0.64	
v/c Ratio		0.02	0.49			0.76	
Control Delay		0.1	3.4			18.6	
Queue Delay		0.0	0.0			0.1	
Total Delay		0.1	3.4			18.8	
LOS		A	A			B	
Approach Delay			3.4			18.8	
Approach LOS			A			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 12.7  
 Intersection Capacity Utilization 47.3%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)  
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	50	180	1060	20	40	1550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	80	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Flt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.191	
Satd. Flow (perm)	1770	1583	3529	0	356	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		193	3			
Link Speed (mph)	30		30			30
Link Distance (ft)	416		3598			2477
Travel Time (s)	9.5		81.8			56.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	196	1152	22	43	1685
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	196	1174	0	43	1685
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Act Effct Green (s)	6.8	6.8	45.5		51.3	50.4
Actuated g/C Ratio	0.10	0.10	0.70		0.79	0.77
v/c Ratio	0.29	0.58	0.48		0.11	0.62
Control Delay	30.8	12.5	6.2		2.4	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	30.8	12.5	6.2		2.4	4.7
LOS	C	B	A		A	A
Approach Delay	16.4		6.2			4.6
Approach LOS	B		A			A

Intersection Summary























Area Type:	Other
Cycle Length:	88.1
Actuated Cycle Length:	65.2
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	6.1
Intersection Capacity Utilization	53.7%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
1: Grist Mill Rd & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1550	10	400	10	30	10	540	750	20	10	550	1300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		175	0		0	60		0
Storage Lanes	1		1	0		1	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.996				0.850
Flt Protected	0.950	0.953			0.988		0.950			0.950		
Satd. Flow (prot)	1681	1686	1583	0	1840	1583	1770	1855	0	1770	1863	1583
Flt Permitted	0.950	0.953			0.988		0.950			0.336		
Satd. Flow (perm)	1681	1686	1583	0	1840	1583	1770	1855	0	626	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			427			11		2				652
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1016			338			851				1681
Travel Time (s)		23.1			7.7			19.3				38.2
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
Adj. Flow (vph)	1685	11	435	11	33	11	587	815	22	11	598	1413
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	842	854	435	0	44	11	587	837	0	11	598	1413
Turn Type	Split		Perm	Split		Perm	Prot			Perm		Perm
Protected Phases	4	4		8	8		5					6
Permitted Phases			4			8		2		6		6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	21.5	21.0		21.5	21.5	21.5
Total Split (s)	23.0	23.0	23.0	22.0	22.0	22.0	22.0	45.0	0.0	23.0	23.0	23.0
Total Split (%)	25.6%	25.6%	25.6%	24.4%	24.4%	24.4%	24.4%	50.0%	0.0%	25.6%	25.6%	25.6%
Maximum Green (s)	17.0	17.0	17.0	16.0	16.0	16.0	17.0	40.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	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	2.0	2.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?							Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min	Min	Min	Min	Min	None	C-Max		C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	17.0		7.6	7.6	25.4	48.4		18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19		0.08	0.08	0.28	0.54		0.20	0.20	0.20
v/c Ratio	2.65	2.69	0.67		0.28	0.08	1.18	0.84		0.09	1.60	1.69
Control Delay	769.8	786.5	9.6		42.5	20.5	130.8	27.7		37.0	303.7	330.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	769.8	786.5	9.6		42.5	20.5	130.8	27.7		37.0	303.7	330.1
LOS	F	F	A		D	C	F	C		D	F	F
Approach Delay		621.3			38.1			70.2			320.7	
Approach LOS		F			D			E			F	

Intersection Summary

Area Type: Other  
Cycle Length: 90

# Route 7 Corridor - Gap Analysis Study

## 1: Grist Mill Rd & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

Actuated Cycle Length: 90

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

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.69

Intersection Signal Delay: 368.3

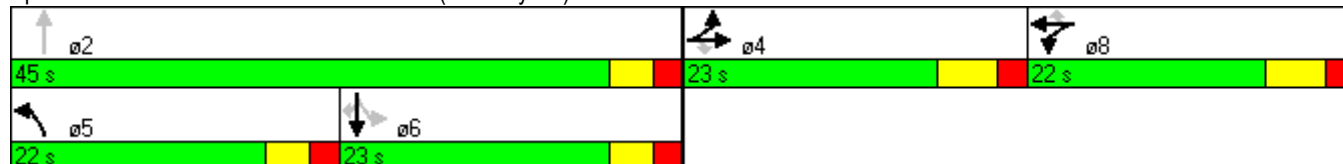
Intersection LOS: F

Intersection Capacity Utilization 127.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
2: I-Park Dr & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour










Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	60	60	170	360	20	190	60	1890	380	200	1320	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		60	125		0	390		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.921				0.850		0.975			0.998	
Flt Protected		0.990			0.955		0.950			0.950		
Satd. Flow (prot)	0	1698	0	0	1779	1583	1770	3451	0	1770	3532	0
Flt Permitted		0.363			0.401		0.103			0.085		
Satd. Flow (perm)	0	623	0	0	747	1583	192	3451	0	158	3532	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76				91		25			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		254			236			1681			876	
Travel Time (s)		5.8			5.4			38.2			19.9	
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
Adj. Flow (vph)	65	65	185	391	22	207	65	2054	413	217	1435	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	315	0	0	413	207	65	2467	0	217	1457	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	13.3	13.3		13.3	13.3	13.3	8.0	20.5		8.0	20.5	
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	12.0	28.0	0.0	12.0	28.0	0.0
Total Split (%)	31.1%	31.1%	0.0%	31.1%	31.1%	31.1%	13.3%	31.1%	0.0%	13.3%	31.1%	0.0%
Maximum Green (s)	22.7	22.7		22.7	22.7	22.7	9.0	22.5		9.0	24.4	
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.9		3.0	2.0	
All-Red Time (s)	2.3	2.3		2.3	2.3	2.3	0.0	1.6		0.0	1.6	
Total Lost Time (s)	5.3	5.3	4.0	5.3	5.3	5.3	3.0	5.5	4.0	3.0	3.6	4.0
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	2.5		1.0	2.5	
Recall Mode	None	None		None	None	None	None	C-Max		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		22.7			22.7	22.7	50.0	42.3		59.0	51.8	
Actuated g/C Ratio		0.25			0.25	0.25	0.56	0.47		0.66	0.58	
v/c Ratio		1.47			2.20	0.44	0.33	1.51		0.71	0.72	
Control Delay		259.4			577.4	19.0	8.0	253.7		29.6	16.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		259.4			577.4	19.0	8.0	253.7		29.6	16.8	
LOS		F			F	B	A	F		C	B	
Approach Delay		259.4			391.0			247.4			18.5	
Approach LOS		F			F			F			B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	9 (10%), Referenced to phase 2:NBTL, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	2.20
Intersection Signal Delay:	190.9
Intersection LOS:	F
Intersection Capacity Utilization	130.1%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 2: I-Park Dr & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4	 ø11
12 s	28 s	28 s	22 s
 ø5	 ø6	 ø8	
12 s	28 s	28 s	

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	20.0
Minimum Split (s)	22.0
Total Split (s)	22.0
Total Split (%)	24%
Maximum Green (s)	20.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	0.0
Flash Dont Walk (s)	22.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Intersection Summary

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Route 7 Corridor - Gap Analysis Study  
 3: Foxboro Drive & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	70	1900	110	50	1580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	70	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3511	0	1770	3539
Flt Permitted	0.950				0.060	
Satd. Flow (perm)	1770	1583	3511	0	112	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		76	11			
Link Speed (mph)	30		30			30
Link Distance (ft)	504		876			1254
Travel Time (s)	11.5		19.9			28.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	76	2065	120	54	1717
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	76	2185	0	54	1717
Turn Type		custom			pm+pt	
Protected Phases	8	8	2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	7.0	7.0	20.0		7.0	20.0
Minimum Split (s)	11.0	11.0	25.9		10.1	25.9
Total Split (s)	19.0	19.0	58.0	0.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	0.0%	14.5%	78.9%
Maximum Green (s)	15.0	15.0	52.1		10.0	65.2
Yellow Time (s)	3.0	3.0	3.9		3.0	3.9
All-Red Time (s)	1.0	1.0	2.0		0.1	2.0
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.1	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.5	2.5	2.5		2.0	2.5
Recall Mode	None	None	C-Min		None	Min
Act Effct Green (s)	9.1	9.1	66.4		76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74		0.84	0.83
v/c Ratio	0.42	0.33	0.84		0.24	0.59
Control Delay	44.8	13.2	16.0		4.6	4.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.8	13.2	16.0		4.6	4.7
LOS	D	B	B		A	A
Approach Delay	29.0		16.0			4.7
Approach LOS	C		B			A

Intersection Summary

Area Type: Other  
 Cycle Length: 90.1

Actuated Cycle Length: 90.1

Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 11.6

Intersection LOS: B

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 3: Foxboro Drive & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
4: Kent Rd & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	60	70	120	1750	1360	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	200			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25	25	25			25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.927				0.986	
Flt Protected	0.977		0.950			
Satd. Flow (prot)	1687	0	1770	3539	3490	0
Flt Permitted	0.977		0.069			
Satd. Flow (perm)	1687	0	129	3539	3490	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	60				16	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1368			1254	426	
Travel Time (s)	31.1			28.5	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	76	130	1902	1478	152
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	0	130	1902	1630	0
Turn Type			pm+pt			
Protected Phases	4		5	2	6	
Permitted Phases			2			
Minimum Initial (s)	20.0		5.0	15.0	15.0	
Minimum Split (s)	29.0		8.0	19.0	19.0	
Total Split (s)	29.0	0.0	16.0	66.0	50.0	0.0
Total Split (%)	30.5%	0.0%	16.8%	69.5%	52.6%	0.0%
Maximum Green (s)	25.0		13.0	62.0	46.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		0.0	1.0	1.0	
Total Lost Time (s)	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	1.0		1.0	0.2	0.2	
Recall Mode	None		None	C-Max	C-Max	
Walk Time (s)	15.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	20.0		68.0	67.0	57.5	
Actuated g/C Ratio	0.21		0.72	0.71	0.61	
v/c Ratio	0.35		0.64	0.76	0.77	
Control Delay	21.4		26.1	11.5	17.2	
Queue Delay	0.0		0.0	0.0	25.5	
Total Delay	21.4		26.1	11.5	42.7	
LOS	C		C	B	D	
Approach Delay	21.4			12.5	42.7	
Approach LOS	C			B	D	

Intersection Summary

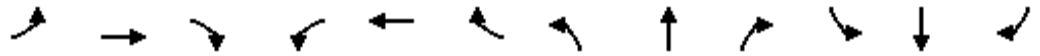
Area Type:	Other	
Cycle Length:	95	
Actuated Cycle Length:	95	
Offset:	54 (57%), Referenced to phase 2:NBTL and 6:SBT, Start of Green	
Control Type:	Actuated-Coordinated	
Maximum v/c Ratio:	0.77	
Intersection Signal Delay:	25.8	Intersection LOS: C
Intersection Capacity Utilization	75.4%	ICU Level of Service D
Analysis Period (min)	15	

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
5: Comm. Dr. & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour



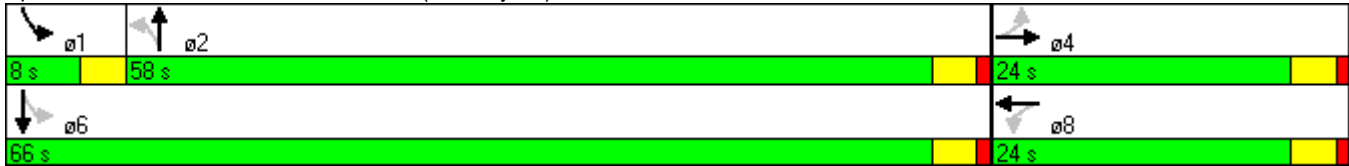
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↕			↕	
Volume (vph)	30	0	50	70	0	30	20	1670	120	70	1380	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.916			0.850			0.990			0.999	
Flt Protected		0.981		0.950				0.999			0.998	
Satd. Flow (prot)	0	1674	0	1770	1583	0	0	3500	0	0	3529	0
Flt Permitted		0.891		0.701				0.918			0.646	
Satd. Flow (perm)	0	1520	0	1306	1583	0	0	3217	0	0	2284	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			109			14			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		244			796			426			1406	
Travel Time (s)		5.5			18.1			9.7			32.0	
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
Adj. Flow (vph)	33	0	54	76	0	33	22	1815	130	76	1500	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	76	33	0	0	1967	0	0	1587	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	6.0	6.0		20.0	20.0		15.0	15.0		3.0	15.0	
Minimum Split (s)	10.0	10.0		24.0	24.0		19.0	19.0		6.0	19.0	
Total Split (s)	24.0	24.0	0.0	24.0	24.0	0.0	58.0	58.0	0.0	8.0	66.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%	64.4%	64.4%	0.0%	8.9%	73.3%	0.0%
Maximum Green (s)	20.0	20.0		20.0	20.0		54.0	54.0		5.0	62.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	0.2	0.2		1.0	1.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)				15.0	15.0							
Flash Dont Walk (s)				1.0	1.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)		17.2		20.0	20.0			67.6			67.6	
Actuated g/C Ratio		0.19		0.22	0.22			0.75			0.75	
v/c Ratio		0.26		0.26	0.08			0.81			0.92	
Control Delay		15.7		31.9	0.3			13.6			24.2	
Queue Delay		0.0		0.0	0.0			6.3			0.0	
Total Delay		15.7		31.9	0.3			20.0			24.2	
LOS		B		C	A			B			C	
Approach Delay		15.7			22.3			20.0			24.2	
Approach LOS		B			C			B			C	

Intersection Summary

Area Type: Other  
Cycle Length: 90

Actuated Cycle Length: 90  
Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
Control Type: Actuated-Coordinated  
Maximum v/c Ratio: 0.92  
Intersection Signal Delay: 21.7 Intersection LOS: C  
Intersection Capacity Utilization 113.7% ICU Level of Service H  
Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
6: Self-Storage Driveway & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour








Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	0	30	80	0	80	10	1790	20	10	1370	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		0	40		0	50		0	130		0
Storage Lanes	1		0	1		0	0		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.850			0.850			0.998			0.999	
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1583	0	1770	1583	0	0	3532	0	1770	3536	0
Flt Permitted	0.604			0.736				0.942		0.067		
Satd. Flow (perm)	1125	1583	0	1371	1583	0	0	3327	0	125	3536	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		378			486			1			1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		188			164			1406			608	
Travel Time (s)		4.3			3.7			32.0			13.8	
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
Adj. Flow (vph)	11	0	33	87	0	87	11	1946	22	11	1489	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	33	0	87	87	0	0	1979	0	11	1500	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0		5.0	15.0	
Minimum Split (s)	11.1	11.1		11.1	11.1		20.5	20.5		8.1	20.5	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	45.5	45.5	0.0	11.1	56.6	0.0
Total Split (%)	16.2%	16.2%	0.0%	16.2%	16.2%	0.0%	46.1%	46.1%	0.0%	11.3%	57.4%	0.0%
Maximum Green (s)	12.9	12.9		12.9	12.9		40.0	40.0		8.0	51.1	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.9	3.9		3.0	3.9	
All-Red Time (s)	0.1	0.1		0.1	0.1		1.6	1.6		0.1	1.6	
Total Lost Time (s)	3.1	3.1	4.0	3.1	3.1	4.0	5.5	5.5	4.0	3.1	5.5	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	0.2	
Recall Mode	None	None		None	None		C-Max	C-Max		None	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.1	10.1		10.1	10.1		78.3			82.3	79.9	
Actuated g/C Ratio	0.10	0.10		0.10	0.10		0.79			0.83	0.81	
v/c Ratio	0.10	0.07		0.62	0.15		0.75			0.06	0.52	
Control Delay	40.6	0.3		61.3	0.5		8.6			2.3	4.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0			0.0	0.4	
Total Delay	40.6	0.3		61.3	0.5		8.6			2.3	4.4	
LOS	D	A		E	A		A			A	A	
Approach Delay		10.4			30.9		8.6				4.4	
Approach LOS		B			C		A				A	

Intersection Summary

Area Type:	Other
Cycle Length:	98.6
Actuated Cycle Length:	98.6
Offset:	14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	7.9
Intersection LOS:	A
Intersection Capacity Utilization	76.1%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4	 ø11
11.1 s	45.5 s	16 s	26 s
 ø6		 ø8	
56.6 s		16 s	

Lane Group	ø11
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Minimum Initial (s)	3.0
Minimum Split (s)	26.0
Total Split (s)	26.0
Total Split (%)	26%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

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Intersection Summary

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Route 7 Corridor - Gap Analysis Study  
7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Volume (vph)	90	90	50	70	10	80	10	1730	270	80	1270	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Fr <sub>t</sub>			0.850		0.932			0.980			0.998	
Fl <sub>t</sub> Protected		0.976			0.979						0.997	
Satd. Flow (prot)	0	1818	1583	0	1700	0	0	3468	0	0	3522	0
Fl <sub>t</sub> Permitted		0.721			0.650			0.944			0.563	
Satd. Flow (perm)	0	1343	1583	0	1128	0	0	3274	0	0	1989	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			54		24			41			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			1396			608			4276	
Travel Time (s)		7.5			31.7			13.8			97.2	
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
Adj. Flow (vph)	98	98	54	76	11	87	11	1880	293	87	1380	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	54	0	174	0	0	2184	0	0	1489	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		7.0	15.0		15.0	15.0	
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0		10.0	19.0		19.0	19.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	0.0	10.0	64.0	0.0	54.0	54.0	0.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%	0.0%	11.1%	71.1%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	22.0	22.0	22.0	22.0	22.0		7.0	60.0		50.0	50.0	
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)	1.0	1.0	1.0	1.0	1.0		0.0	1.0		1.0	1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		0.2	0.2		0.2	0.2	
Recall Mode	None	None	None	None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	13.0	13.0	13.0	13.0	13.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		19.2	19.2		19.2			62.8			62.8	
Actuated g/C Ratio		0.21	0.21		0.21			0.70			0.70	
v/c Ratio		0.69	0.14		0.67			0.95			1.07	
Control Delay		45.6	9.0		41.4			23.8			57.5	
Queue Delay		0.0	0.0		0.0			15.9			0.0	
Total Delay		45.6	9.0		41.4			39.7			57.5	
LOS		D	A		D			D			E	
Approach Delay		37.7			41.4			39.7			57.5	
Approach LOS		D			D			D			E	

Intersection Summary

Area Type: Other  
Cycle Length: 90

Actuated Cycle Length: 90

Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 46.1

Intersection LOS: D

Intersection Capacity Utilization 118.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations	↑↑		↑	↑	↑	↑↑
Volume (vph)	1430	450	740	890	320	620
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	248	
Storage Lanes	2	0		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	0.95
Fr <sub>t</sub>	0.964			0.850		
Fl <sub>t</sub> Protected	0.963				0.950	
Satd. Flow (prot)	3355	0	1863	1583	1770	3539
Fl <sub>t</sub> Permitted	0.963				0.143	
Satd. Flow (perm)	3355	0	1863	1583	266	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	64			733		
Link Speed (mph)	30		30			30
Link Distance (ft)	4276		2591			1707
Travel Time (s)	97.2		58.9			38.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1554	489	804	967	348	674
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2043	0	804	967	348	674
Turn Type				Perm	pm+pt	
Protected Phases	5		4		3	8
Permitted Phases				4	8	
Minimum Initial (s)	10.0		20.0	20.0	5.0	20.0
Minimum Split (s)	14.0		25.0	25.0	8.0	25.0
Total Split (s)	45.0	0.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	0.0%	33.3%	33.3%	16.7%	50.0%
Maximum Green (s)	41.0		25.0	25.0	12.0	40.0
Yellow Time (s)	3.0		4.0	4.0	3.0	4.0
All-Red Time (s)	1.0		1.0	1.0	0.0	1.0
Total Lost Time (s)	4.0	4.0	5.0	5.0	3.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	4.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Min	C-Min	None	C-Min
Act Effct Green (s)	41.0		25.0	25.0	42.0	40.0
Actuated g/C Ratio	0.46		0.28	0.28	0.47	0.44
v/c Ratio	1.31		1.55	1.00	1.07	0.43
Control Delay	164.2		285.1	38.3	93.7	18.2
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	164.2		285.1	38.3	93.7	18.2
LOS	F		F	D	F	B
Approach Delay	164.2		150.3			43.9
Approach LOS	F		F			D

Intersection Summary

Area Type: Other  
 Cycle Length: 90

Route 7 Corridor - Gap Analysis Study  
 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

Actuated Cycle Length: 90

Offset: 51 (57%), Referenced to phase 4:SET and 8:NWTL, Start of Green

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.55

Intersection Signal Delay: 133.7

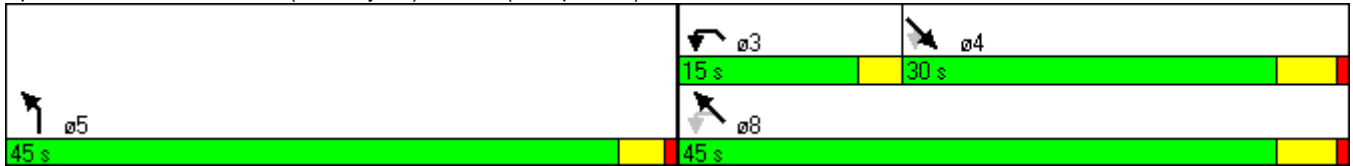
Intersection LOS: F

Intersection Capacity Utilization 122.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd) #7

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	70	40	300	40	470	20	910	650	460	760	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	90		0	380		190	50		900	130		0
Storage Lanes	1		0	1		1	1		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95
Fr <sub>t</sub>		0.946				0.850			0.850		0.989	
Fl <sub>t</sub> Protected	0.950			0.950	0.963		0.950			0.950		
Satd. Flow (prot)	1770	1762	0	1681	1704	1583	1770	3539	1583	3433	3500	0
Fl <sub>t</sub> Permitted	0.950			0.950	0.963		0.950			0.950		
Satd. Flow (perm)	1770	1762	0	1681	1704	1583	1770	3539	1583	3433	3500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				159			542		12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		442			766			965			245	
Travel Time (s)		10.0			17.4			21.9			5.6	
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
Adj. Flow (vph)	65	76	43	326	43	511	22	989	707	500	826	65
Shared Lane Traffic (%)				44%								
Lane Group Flow (vph)	65	119	0	183	186	511	22	989	707	500	891	0
Turn Type	Split			Split		pt+ov	Prot		Prot	Prot		
Protected Phases	6	6		5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	
Permitted Phases												
Minimum Initial (s)	10.0	10.0		5.0	5.0		5.0					
Minimum Split (s)	16.0	16.0		9.0	9.0		9.0					
Total Split (s)	16.0	16.0	0.0	16.0	16.0	36.0	11.0	38.0	38.0	20.0	47.0	0.0
Total Split (%)	17.8%	17.8%	0.0%	17.8%	17.8%	40.0%	12.2%	42.2%	42.2%	22.2%	52.2%	0.0%
Maximum Green (s)	10.0	10.0		12.0	12.0		7.0					
Yellow Time (s)	4.0	4.0		3.0	3.0		3.0					
All-Red Time (s)	2.0	2.0		1.0	1.0		1.0					
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	4.0
Lead/Lag	Lag	Lag		Lead	Lead		Lag					
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes					
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0					
Recall Mode	None	None		None	None		None					
Act Effect Green (s)	10.0	10.0		12.0	12.0	28.0	7.0	34.0	34.0	16.0	41.0	
Actuated g/C Ratio	0.11	0.11		0.13	0.13	0.31	0.08	0.38	0.38	0.18	0.46	
v/c Ratio	0.33	0.55		0.82	0.82	0.85	0.16	0.74	0.76	0.82	0.56	
Control Delay	42.0	39.9		66.8	66.8	28.5	41.7	28.3	11.7	47.0	13.0	
Queue Delay	0.0	0.0		0.0	0.0	0.1	0.0	0.1	0.0	28.9	11.7	
Total Delay	42.0	39.9		66.8	66.8	28.6	41.7	28.4	11.7	76.0	24.7	
LOS	D	D		E	E	C	D	C	B	E	C	
Approach Delay		40.6			44.6			21.7			43.1	
Approach LOS		D			D			C			D	

Intersection Summary

Area Type: Other  
 Cycle Length: 90

Lane Group	ø2	ø3	ø4
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Lane Util. Factor			
Frt			
Flt Protected			
Satd. Flow (prot)			
Flt Permitted			
Satd. Flow (perm)			
Right Turn on Red			
Satd. Flow (RTOR)			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Peak Hour Factor			
Adj. Flow (vph)			
Shared Lane Traffic (%)			
Lane Group Flow (vph)			
Turn Type			
Protected Phases	2	3	4
Permitted Phases			
Minimum Initial (s)	15.0	4.0	5.0
Minimum Split (s)	22.0	8.0	10.0
Total Split (s)	27.0	10.0	10.0
Total Split (%)	30%	11%	11%
Maximum Green (s)	21.0	6.0	5.0
Yellow Time (s)	4.0	3.5	3.0
All-Red Time (s)	2.0	0.5	2.0
Total Lost Time (s)			
Lead/Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0
Recall Mode	C-Max	None	None
Act Effct Green (s)			
Actuated g/C Ratio			
v/c Ratio			
Control Delay			
Queue Delay			
Total Delay			
LOS			
Approach Delay			
Approach LOS			
Intersection Summary			

Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd) #7

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 34.5

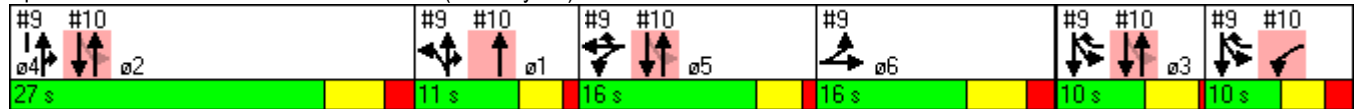
Intersection LOS: C

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations	↙		↑↑		↘	↗↗					
Volume (vph)	120	110	1380	60	80	1160					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95					
Frt	0.935		0.994								
Flt Protected	0.975				0.950						
Satd. Flow (prot)	1698	0	3518	0	1770	3539					
Flt Permitted	0.975				0.103						
Satd. Flow (perm)	1698	0	3518	0	192	3539					
Right Turn on Red		Yes		Yes							
Satd. Flow (RTOR)	39		9								
Link Speed (mph)	30		30			30					
Link Distance (ft)	207		245			213					
Travel Time (s)	4.7		5.6			4.8					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92					
Adj. Flow (vph)	130	120	1500	65	87	1261					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	250	0	1565	0	87	1261					
Turn Type					Perm						
Protected Phases	4		1 2 3 5			2 3 5	1	2	3	5	6
Permitted Phases					2 3 5						
Minimum Initial (s)	5.0						5.0	15.0	4.0	5.0	10.0
Minimum Split (s)	10.0						9.0	22.0	8.0	9.0	16.0
Total Split (s)	10.0	0.0	64.0	0.0	53.0	53.0	11.0	27.0	10.0	16.0	16.0
Total Split (%)	11.1%	0.0%	71.1%	0.0%	58.9%	58.9%	12%	30%	11%	18%	18%
Maximum Green (s)	5.0						7.0	21.0	6.0	12.0	10.0
Yellow Time (s)	3.0						3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0						1.0	2.0	0.5	1.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	4.0	6.0	6.0					
Lead/Lag	Lag						Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes						Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0						3.0	3.0	3.0	3.0	3.0
Recall Mode	None						None	C-Max	None	None	None
Act Effect Green (s)	5.0		56.0		35.0	35.0					
Actuated g/C Ratio	0.06		0.62		0.39	0.39					
v/c Ratio	1.91		0.71		1.16	0.92					
Control Delay	459.1		4.7		178.6	25.6					
Queue Delay	41.2		0.7		0.0	23.8					
Total Delay	500.3		5.4		178.6	49.5					
LOS	F		A		F	D					
Approach Delay	500.3		5.4			57.8					
Approach LOS	F		A			E					

Intersection Summary

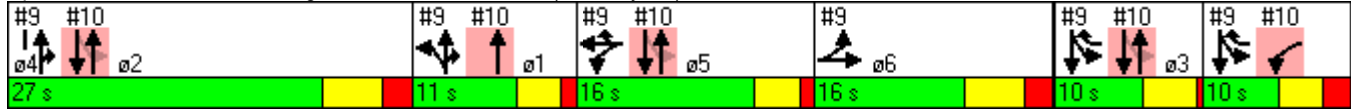
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection  
 Control Type: Actuated-Coordinated

Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 66.8	Intersection LOS: E
Intersection Capacity Utilization 78.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
83: North Main St. & Route 7

No Build Conditions (2030)  
Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	160	1490	20	125	1240
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.873		0.998			
Flt Protected	0.997				0.950	
Satd. Flow (prot)	1621	0	3532	0	1770	1863
Flt Permitted	0.997				0.123	
Satd. Flow (perm)	1621	0	3532	0	229	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	174		3			
Link Speed (mph)	30		30			30
Link Distance (ft)	273		594			437
Travel Time (s)	6.2		13.5			9.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	174	1620	22	136	1348
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	1642	0	136	1348
Turn Type					pm+pt	
Protected Phases	6		2		1	12
Permitted Phases					12	
Minimum Initial (s)	5.0		15.0		5.0	
Minimum Split (s)	10.5		22.0		9.0	
Total Split (s)	10.5	0.0	38.5	0.0	21.0	59.5
Total Split (%)	15.0%	0.0%	55.0%	0.0%	30.0%	85.0%
Maximum Green (s)	5.0		32.5		17.0	
Yellow Time (s)	3.0		4.0		3.0	
All-Red Time (s)	2.5		2.0		1.0	
Total Lost Time (s)	5.5	4.0	6.0	4.0	4.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		Max		Max	
Walk Time (s)	5.0		5.0		5.0	
Flash Dont Walk (s)	11.0		11.0		11.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	5.0		32.5		51.5	55.5
Actuated g/C Ratio	0.07		0.46		0.74	0.79
v/c Ratio	0.67		1.00		0.25	0.91
Control Delay	20.3		43.0		4.4	17.6
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	20.3		43.0		4.4	17.6
LOS	C		D		A	B
Approach Delay	20.3		43.0			16.4
Approach LOS	C		D			B

**Intersection Summary**  
Area Type: Other  
Cycle Length: 70

Actuated Cycle Length: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 29.8

Intersection LOS: C

Intersection Capacity Utilization 83.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 83: North Main St. & Route 7



Route 7 Corridor - Gap Analysis Study  
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour








Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↖	↗			↕	↘
Volume (vph)	140	20	340	0	10	10	340	1200	0	10	940	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		0	100		0	0		0
Storage Lanes	0		1	0		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.932							0.988
Flt Protected		0.958					0.950					
Satd. Flow (prot)	0	1785	1583	0	1736	0	1770	1863	0	0	1840	0
Flt Permitted		0.737					0.185				0.568	
Satd. Flow (perm)	0	1373	1583	0	1736	0	345	1863	0	0	1045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			299		11						7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		630			370			1280			2667	
Travel Time (s)		14.3			8.4			29.1			60.6	
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
Adj. Flow (vph)	152	22	370	0	11	11	370	1304	0	11	1022	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	370	0	22	0	370	1304	0	0	1131	0
Turn Type	Perm		Perm	Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4		4	8			2			6		
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0		3.0	15.0		15.0	15.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0		6.5	21.0		21.0	21.0	
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	18.1	79.1	0.0	61.0	61.0	0.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	0.0%	17.4%	76.0%	0.0%	58.6%	58.6%	0.0%
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0		15.0	73.1		55.0	55.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0	4.2		4.2	4.2	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		0.1	1.8		1.8	1.8	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	3.1	6.0	4.0	6.0	6.0	4.0
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	1.5	1.5	1.5	1.5	1.5		1.0	5.0		5.0	5.0	
Recall Mode	None	None	None	None	None		None	None		None	None	
Walk Time (s)	12.0	12.0	12.0	12.0	12.0							
Flash Dont Walk (s)	1.0	1.0	1.0	1.0	1.0							
Pedestrian Calls (#/hr)	0	0	0	0	0							
Act Effct Green (s)		18.8	18.8		18.8		76.0	73.1			57.4	
Actuated g/C Ratio		0.18	0.18		0.18		0.74	0.71			0.56	
v/c Ratio		0.69	0.69		0.07		0.86	0.98			1.93	
Control Delay		55.0	16.3		23.8		30.9	37.4			446.4	
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay		55.0	16.3		23.8		30.9	37.4			446.4	
LOS		D	B		C		C	D			F	
Approach Delay		28.7			23.8			36.0			446.4	
Approach LOS		C			C			D			F	

Intersection Summary

Area Type:	Other		
Cycle Length:	104.1		
Actuated Cycle Length:	102.9		
Control Type:	Actuated-Uncoordinated		
Maximum v/c Ratio:	1.93		
Intersection Signal Delay:	172.4	Intersection LOS:	F
Intersection Capacity Utilization	148.3%	ICU Level of Service	H
Analysis Period (min)	15		

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

 ø2	 ø4
79.1 s	25 s
 ø5	 ø6
18.1 s	61 s
	 ø8
	25 s

Route 7 Corridor - Gap Analysis Study  
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)





No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

	↖	→	↗	↖	←	↖	↖	↑	↗	↘	↓	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↗		↗	↗	
Volume (vph)	20	160	110	20	40	40	90	1080	30	50	840	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	94		0	220		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>		0.949			0.946			0.996			0.996	
Fl <sub>t</sub> Protected		0.997			0.990		0.950			0.950		
Satd. Flow (prot)	0	1762	0	0	1745	0	1770	1855	0	1770	1855	0
Fl <sub>t</sub> Permitted		0.976			0.788		0.225			0.071		
Satd. Flow (perm)	0	1725	0	0	1389	0	419	1855	0	132	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			32			3			3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		487			269			2915			1956	
Travel Time (s)		11.1			6.1			66.3			44.5	
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
Adj. Flow (vph)	22	174	120	22	43	43	98	1174	33	54	913	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	316	0	0	108	0	98	1207	0	54	935	0
Turn Type	Perm			Perm			Perm			pm+pt		
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	18.0	18.0		18.0	18.0		30.0	30.0		5.0	30.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		36.0	36.0		8.0	36.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	59.0	59.0	0.0	12.0	71.0	0.0
Total Split (%)	23.7%	23.7%	0.0%	23.7%	23.7%	0.0%	63.4%	63.4%	0.0%	12.9%	76.3%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		53.0	53.0		9.0	65.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		3.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		0.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	6.0	4.0
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		2.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)	12.0	12.0		12.0	12.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		18.0			18.0		53.6	53.6		65.0	62.0	
Actuated g/C Ratio		0.20			0.20		0.60	0.60		0.72	0.69	
v/c Ratio		0.86			0.36		0.39	1.09		0.28	0.73	
Control Delay		55.2			26.3		15.5	76.2		7.2	13.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		55.2			26.3		15.5	76.2		7.2	13.0	
LOS		E			C		B	E		A	B	
Approach Delay		55.2			26.3			71.7			12.7	
Approach LOS		E			C			E			B	

Intersection Summary

Area Type:	Other
Cycle Length:	93
Actuated Cycle Length:	90
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	1.09
Intersection Signal Delay:	46.5
Intersection LOS:	D
Intersection Capacity Utilization	100.9%
ICU Level of Service	G
Analysis Period (min)	15

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

 ø1	 ø2	 ø4
12 s	59 s	22 s
 ø6		 ø8
71 s		22 s

Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	SET	SER	NWL	NWT
Lane Configurations						
Volume (vph)	60	40	870	30	20	1120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	0.946		0.995			
Fl <sub>t</sub> Protected	0.971					0.999
Satd. Flow (prot)	1711	0	1853	0	0	1861
Fl <sub>t</sub> Permitted	0.971					0.579
Satd. Flow (perm)	1711	0	1853	0	0	1079
Right Turn on Red		No		Yes		
Satd. Flow (RTOR)			3			
Link Speed (mph)	30		30			30
Link Distance (ft)	672		4383			412
Travel Time (s)	15.3		99.6			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	43	946	33	22	1217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	979	0	0	1239
Turn Type					pm+pt	
Protected Phases	4		6		5	2
Permitted Phases					2	
Minimum Initial (s)	19.0		10.0		5.0	10.0
Minimum Split (s)	23.0		15.9		8.0	15.9
Total Split (s)	24.0	0.0	38.9	0.0	8.0	46.9
Total Split (%)	33.9%	0.0%	54.9%	0.0%	11.3%	66.1%
Maximum Green (s)	20.0		33.0		5.0	41.0
Yellow Time (s)	3.0		4.4		3.0	4.4
All-Red Time (s)	1.0		1.5		0.0	1.5
Total Lost Time (s)	4.0	4.0	5.9	4.0	3.0	5.9
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		2.5		0.2	2.5
Recall Mode	None		Min		Min	Min
Walk Time (s)	14.0					
Flash Dont Walk (s)	1.0					
Pedestrian Calls (#/hr)	0					
Act Effct Green (s)	19.5		33.9			42.1
Actuated g/C Ratio	0.30		0.52			0.64
v/c Ratio	0.21		1.02			1.72
Control Delay	21.3		55.7			348.4
Queue Delay	0.0		0.0			0.0
Total Delay	21.3		55.7			348.4
LOS	C		E			F
Approach Delay	21.3		55.7			348.4
Approach LOS	C		E			F

Intersection Summary









Area Type: Other  
 Cycle Length: 70.9

Route 7 Corridor - Gap Analysis Study  
 13: New Rd & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

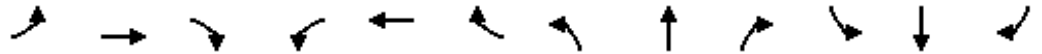
Actuated Cycle Length: 65.3	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 1.72	
Intersection Signal Delay: 210.0	Intersection LOS: F
Intersection Capacity Utilization 99.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)

 ø2  ø4	
 	
 ø5  ø6	
 	

Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	40	40	20	20	30	40	20	1050	40	30	760	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.941			0.995			0.994	
Flt Protected		0.980			0.989			0.999			0.998	
Satd. Flow (prot)	0	1774	0	0	1734	0	0	1852	0	0	1848	0
Flt Permitted		0.861			0.929			0.979			0.932	
Satd. Flow (perm)	0	1559	0	0	1628	0	0	1815	0	0	1726	0
Right Turn on Red			No			No			Yes			Yes
Satd. Flow (RTOR)								4			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		218			267			292			777	
Travel Time (s)		5.0			6.1			6.6			17.7	
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
Adj. Flow (vph)	43	43	22	22	33	43	22	1141	43	33	826	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	108	0	0	98	0	0	1206	0	0	902	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Initial (s)	22.0	22.0		22.0	22.0		20.0	20.0		20.0	20.0	
Minimum Split (s)	26.0	26.0		26.0	26.0		25.0	25.0		25.0	25.0	
Total Split (s)	29.0	29.0	0.0	29.0	29.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Total Split (%)	34.5%	34.5%	0.0%	34.5%	34.5%	0.0%	65.5%	65.5%	0.0%	65.5%	65.5%	0.0%
Maximum Green (s)	25.0	25.0		25.0	25.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		5.0	5.0		5.0	5.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)	17.0	17.0		17.0	17.0							
Flash Dont Walk (s)	1.0	1.0		1.0	1.0							
Pedestrian Calls (#/hr)	0	0		0	0							
Act Effct Green (s)		22.5			22.5			52.6			52.6	
Actuated g/C Ratio		0.30			0.30			0.69			0.69	
v/c Ratio		0.23			0.20			0.96			0.75	
Control Delay		24.9			24.4			35.0			17.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.9			24.4			35.0			17.0	
LOS		C			C			D			B	
Approach Delay		24.9			24.4			35.0			17.0	
Approach LOS		C			C			D			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 84

Actuated Cycle Length: 75.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 91.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	890	60	80	1060	710	550
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180	0	270			0
Storage Lanes	1	0	0			1
Taper Length (ft)	25	25	25			25
Lane Util. Factor	0.97	0.95	0.95	0.95	1.00	1.00
Frt	0.991					0.850
Flt Protected	0.955			0.997		
Satd. Flow (prot)	3420	0	0	3529	1863	1583
Flt Permitted	0.955			0.616		
Satd. Flow (perm)	3420	0	0	2180	1863	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	8					598
Link Speed (mph)	30			30	30	
Link Distance (ft)	1087			505	2089	
Travel Time (s)	24.7			11.5	47.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	967	65	87	1152	772	598
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1032	0	0	1239	772	598
Turn Type			pm+pt			pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases			2			6
Minimum Initial (s)	18.0		3.0	15.0	15.0	18.0
Minimum Split (s)	27.0		7.0	21.0	21.0	27.0
Total Split (s)	32.0	0.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	0.0%	7.8%	64.4%	56.7%	35.6%
Maximum Green (s)	27.0		3.0	52.0	45.0	27.0
Yellow Time (s)	3.0		3.0	4.0	4.0	3.0
All-Red Time (s)	2.0		1.0	2.0	2.0	2.0
Total Lost Time (s)	5.0	4.0	4.0	6.0	6.0	5.0
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0		0.2	2.5	2.5	2.0
Recall Mode	None		Max	Min	Min	None
Walk Time (s)	12.0					12.0
Flash Dont Walk (s)	1.0					1.0
Pedestrian Calls (#/hr)	0					0
Act Effct Green (s)	27.0			51.5	44.5	77.5
Actuated g/C Ratio	0.30			0.58	0.50	0.87
v/c Ratio	0.99			0.98	0.83	0.41
Control Delay	59.0			39.6	29.1	1.0
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	59.0			39.6	29.1	1.0
LOS	E			D	C	A
Approach Delay	59.0			39.6	16.8	
Approach LOS	E			D	B	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	89.5
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.99
Intersection Signal Delay:	36.5
Intersection LOS:	D
Intersection Capacity Utilization:	110.4%
ICU Level of Service:	H
Analysis Period (min):	15

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)

Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	ø7
Lane Configurations							
Volume (vph)	20	40	40	1930	1250	80	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0	0	80			0	
Storage Lanes	1	1	1			0	
Taper Length (ft)	25	25	25			25	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	
Frt		0.850			0.991		
Flt Protected	0.950		0.950				
Satd. Flow (prot)	1770	1583	1770	3539	3507	0	
Flt Permitted	0.950		0.122				
Satd. Flow (perm)	1770	1583	227	3539	3507	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		43			11		
Link Speed (mph)	30			30	30		
Link Distance (ft)	488			1875	166		
Travel Time (s)	11.1			42.6	3.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	22	43	43	2098	1359	87	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	22	43	43	2098	1446	0	
Turn Type		Perm	pm+pt				
Protected Phases	4		1	6	2		7
Permitted Phases		4	6				
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0		5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0		23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	0.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	0.0%	28%
Maximum Green (s)	24.0	24.0	8.0	40.0	40.0		19.9
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0		0.1
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	2.0	5.0	5.0		2.0
Recall Mode	None	None	None	C-Min	C-Min		None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8		
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70		
v/c Ratio	0.04	0.09	0.14	0.85	0.59		
Control Delay	21.7	7.8	6.6	23.7	3.0		
Queue Delay	0.2	0.0	0.0	4.3	0.0		
Total Delay	22.0	7.8	6.6	28.0	3.0		
LOS	C	A	A	C	A		
Approach Delay	12.6			27.6	3.0		
Approach LOS	B			C	A		

Intersection Summary

Area Type:	Other
Cycle Length:	83.1
Actuated Cycle Length:	83.1
Offset:	0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.86
Intersection Signal Delay:	17.6
Intersection LOS:	B
Intersection Capacity Utilization:	80.0%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

#16 #17 ↙ ↘ ø1 11.1 s	#16 #17 ↓ ↑ ø2 44 s	#16 ↗ ø4 28 s
	#16 #17 ↑ ↓ ø6 44 s	#17 ↘ ø7 23 s

Route 7 Corridor - Gap Analysis Study  
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT	ø4
Lane Configurations							
Volume (vph)	10	10	1920	30	10	1320	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95	
Frt		0.850	0.998				
Flt Protected	0.950				0.950		
Satd. Flow (prot)	1770	1583	3532	0	1770	3539	
Flt Permitted	0.950				0.075		
Satd. Flow (perm)	1770	1583	3532	0	140	3539	
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		11	3				
Link Speed (mph)	30		30			30	
Link Distance (ft)	284		166			744	
Travel Time (s)	6.5		3.8			16.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	11	11	2087	33	11	1435	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	11	11	2120	0	11	1435	
Turn Type		Perm			pm+pt		
Protected Phases	7		2		1	6	4
Permitted Phases		7			6		
Minimum Initial (s)	5.0	5.0	15.0		7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0		10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	0.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	0.0%	13.4%	52.9%	34%
Maximum Green (s)	19.9	19.9	40.0		8.0	40.0	24.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0		0.1	1.0	1.0
Total Lost Time (s)	3.1	3.1	4.0	4.0	3.1	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0	2.0
Recall Mode	None	None	C-Min		None	C-Min	None
Walk Time (s)	18.0	18.0					18.0
Flash Dont Walk (s)	1.0	1.0					1.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	16.9	16.9	57.8		61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70		0.74	0.70	
v/c Ratio	0.03	0.03	0.86		0.05	0.58	
Control Delay	20.9	11.4	14.0		6.3	14.0	
Queue Delay	0.0	0.0	0.0		0.0	0.0	
Total Delay	20.9	11.4	14.0		6.3	14.0	
LOS	C	B	B		A	B	
Approach Delay	16.2		14.0			14.0	
Approach LOS	B		B			B	

Intersection Summary

Area Type: Other  
 Cycle Length: 83.1

Actuated Cycle Length: 83.1

Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 14.0

Intersection LOS: B

Intersection Capacity Utilization 64.9%







ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

No Build Conditions (2030)  
 Timing Plan: PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↕	↗	↖	↕
Volume (vph)	30	50	1900	40	160	1330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	80	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Frt		0.850	0.997			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	3529	0	1770	3539
Flt Permitted	0.950				0.093	
Satd. Flow (perm)	1770	1583	3529	0	173	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		54	3			
Link Speed (mph)	30		30			30
Link Distance (ft)	416		3598			2477
Travel Time (s)	9.5		81.8			56.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	54	2065	43	174	1446
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	54	2108	0	174	1446
Turn Type		Perm			pm+pt	
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Minimum Initial (s)	5.0	5.0	15.0		4.0	15.0
Minimum Split (s)	23.0	23.0	19.0		7.1	19.0
Total Split (s)	34.0	34.0	44.0	0.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	0.0%	11.5%	61.4%
Maximum Green (s)	30.0	30.0	40.0		7.0	50.1
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0
All-Red Time (s)	1.0	1.0	1.0		0.1	1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	2.0	2.0	5.0		2.0	5.0
Recall Mode	Min	Min	Min		None	None
Walk Time (s)	18.0	18.0				
Flash Dont Walk (s)	1.0	1.0				
Pedestrian Calls (#/hr)	0	0				
Act Effct Green (s)	5.8	5.8	40.0		50.6	49.7
Actuated g/C Ratio	0.09	0.09	0.63		0.80	0.78
v/c Ratio	0.20	0.28	0.95		0.58	0.52
Control Delay	29.8	12.8	22.9		15.1	3.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	29.8	12.8	22.9		15.1	3.4
LOS	C	B	C		B	A
Approach Delay	19.3		22.9			4.7
Approach LOS	B		C			A

Intersection Summary

Area Type:	Other
Cycle Length:	88.1
Actuated Cycle Length:	63.5
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.95
Intersection Signal Delay:	15.1
Intersection LOS:	B
Intersection Capacity Utilization	76.8%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
1: Grist Mill Rd & Rt 7 (Main Ave)

Build Conditions 2030)  
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	1390	80	60	20	330	440	20	570
Lane Group Flow (vph)	1511	739	98	22	284	586	22	2229
Turn Type	Split			custom	Prot		Prot	
Protected Phases	4	4	8	8	5	2	1	6
Permitted Phases				8		2		
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	9.0	9.0	9.0	9.0	15.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	21.0	21.0	8.0	21.0
Total Split (s)	47.0	47.0	22.0	22.0	25.0	71.0	10.0	56.0
Total Split (%)	31.3%	31.3%	14.7%	14.7%	16.7%	47.3%	6.7%	37.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.5	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	None	C-Max	None	C-Max
Act Effct Green (s)	41.0	41.0	13.0	13.0	23.0	79.0	6.4	51.0
Actuated g/C Ratio	0.27	0.27	0.09	0.09	0.15	0.53	0.04	0.34
v/c Ratio	1.61	1.19	0.62	0.14	1.15	0.54	0.29	1.89dr
Control Delay	315.0	131.2	82.6	23.2	157.3	22.5	79.8	304.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	315.0	131.2	82.6	23.2	157.3	22.5	79.8	304.3
LOS	F	F	F	C	F	C	E	F
Approach Delay		254.6	71.7			66.5		302.1
Approach LOS		F	E			E		F
Queue Length 50th (ft)	~1089	~684	94	0	~361	175	21	~1482
Queue Length 95th (ft)	#1226	#936	156	29	#603	229	53	#1610
Internal Link Dist (ft)		936	258			771		1601
Turn Bay Length (ft)	190			175	500		60	
Base Capacity (vph)	938	622	195	189	247	1092	76	1385
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	1.61	1.19	0.50	0.12	1.15	0.54	0.29	1.61

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 46 (31%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.61

Intersection Signal Delay: 240.3

Intersection LOS: F

Intersection Capacity Utilization 138.3%

ICU Level of Service H

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.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)

 ø1	 ø2	 ø4	 ø8
10 s	71 s	47 s	22 s
 ø5	 ø6		
25 s	56 s		

Route 7 Corridor - Gap Analysis Study  
 2: I-Park Dr & Rt 7 (Main Ave)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations		↕		↕	↕	↕	↕↕	↕	↕↕	
Volume (vph)	20	20	360	70	160	180	1420	100	1550	
Lane Group Flow (vph)	0	98	0	467	174	196	1717	109	1761	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	12.0	21.0	12.0	21.0	22.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	13.3%	23.3%	13.3%	23.3%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	3.9	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	5.5	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effct Green (s)		29.7		29.7	29.7	52.0	40.8	45.4	35.6	
Actuated g/C Ratio		0.33		0.33	0.33	0.58	0.45	0.50	0.40	
v/c Ratio		0.21		1.05	0.30	0.64	1.08	0.47	1.27	
Control Delay		12.5		87.3	14.2	24.1	75.0	17.1	152.0	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		12.5		87.3	14.2	24.1	75.0	17.1	152.0	
LOS		B		F	B	C	E	B	F	
Approach Delay		12.5		67.4			69.8		144.1	
Approach LOS		B		E			E		F	
Queue Length 50th (ft)		17		~292	39	50	~594	26	~668	
Queue Length 95th (ft)		53		#478	90	119	#787	54	#858	
Internal Link Dist (ft)		174		156			1601		796	
Turn Bay Length (ft)					60	125		390		
Base Capacity (vph)		459		446	573	307	1586	274	1392	
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		0.21		1.05	0.30	0.64	1.08	0.40	1.27	

Intersection Summary








Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.27  
 Intersection Signal Delay: 98.9  
 Intersection Capacity Utilization 97.7%  
 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: 2: I-Park Dr & Rt 7 (Main Ave)

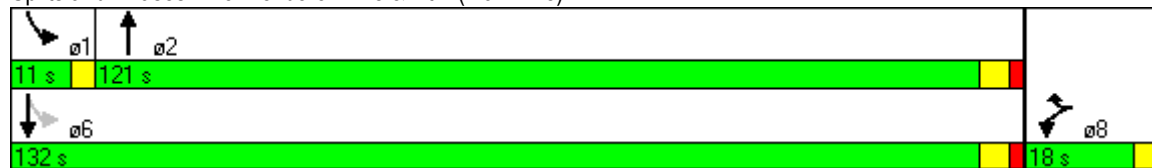
 ø1	 ø2	 ø4	 ø11
12 s	21 s	35 s	22 s
 ø5	 ø6	 ø8	
12 s	21 s	35 s	



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	60	30	1640	10	1640
Lane Group Flow (vph)	65	33	1805	11	1783
Turn Type	custom		pm+pt		
Protected Phases	8	8	2	1	6
Permitted Phases	8		6		
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	18.0	18.0	121.0	11.0	132.0
Total Split (%)	12.0%	12.0%	80.7%	7.3%	88.0%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effct Green (s)	10.5	10.5	128.9	134.6	132.9
Actuated g/C Ratio	0.07	0.07	0.86	0.90	0.89
v/c Ratio	0.52	0.23	0.59	0.05	0.57
Control Delay	81.5	22.9	5.6	1.7	3.5
Queue Delay	0.0	0.0	0.5	0.0	0.0
Total Delay	81.5	22.9	6.1	1.7	3.5
LOS	F	C	A	A	A
Approach Delay	61.8		6.1		3.5
Approach LOS	E		A		A
Queue Length 50th (ft)	63	0	192	1	188
Queue Length 95th (ft)	113	35	445	4	282
Internal Link Dist (ft)	424		796		1174
Turn Bay Length (ft)	70			200	
Base Capacity (vph)	166	179	3036	254	3139
Starvation Cap Reductn	0	0	680	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.18	0.77	0.04	0.57

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 38 (25%), Referenced to phase 2:NBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study  
4: Kent Rd & Rt 7 (Danbury Rd)

Build Conditions 2030)  
Timing Plan: AM Peak Hour



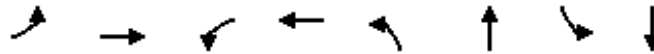
Lane Group	EBL	EBT	NBL	NBT	SBT	ø1	ø8
Lane Configurations		↕	↖	↗	↕		
Volume (vph)	70	0	50	1570	1570		
Lane Group Flow (vph)	0	130	54	1707	1816		
Turn Type	Perm		pm+pt				
Protected Phases		4	5	2	6	1	8
Permitted Phases	4		2				
Detector Phase	4	4	5	2	6		
Switch Phase							
Minimum Initial (s)	20.0	20.0	5.0	15.0	15.0	4.0	4.0
Minimum Split (s)	29.0	29.0	9.0	19.0	19.0	8.0	20.0
Total Split (s)	29.0	29.0	9.0	52.0	52.0	9.0	29.0
Total Split (%)	32.2%	32.2%	10.0%	57.8%	57.8%	10%	32%
Yellow Time (s)	3.0	3.0	3.5	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	0.5	1.0	1.0	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		
Lead/Lag			Lead	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	C-Max	C-Max	None	None
Act Effct Green (s)		20.0	62.0	62.0	54.7		
Actuated g/C Ratio		0.22	0.69	0.69	0.61		
v/c Ratio		0.37	0.30	0.70	0.85		
Control Delay		24.0	8.7	10.4	11.9		
Queue Delay		0.0	0.0	0.4	0.0		
Total Delay		24.0	8.7	10.7	11.9		
LOS		C	A	B	B		
Approach Delay		24.0		10.7	11.9		
Approach LOS		C		B	B		
Queue Length 50th (ft)		43	9	265	154		
Queue Length 95th (ft)		95	19	338	206		
Internal Link Dist (ft)		1288		1174	346		
Turn Bay Length (ft)			200				
Base Capacity (vph)		435	181	2438	2137		
Starvation Cap Reductn		0	0	0	2		
Spillback Cap Reductn		3	0	250	0		
Storage Cap Reductn		0	0	0	0		
Reduced v/c Ratio		0.30	0.30	0.78	0.85		

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 11.7  
 Intersection Capacity Utilization 69.9%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service C

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↗	↘	↗	↕	↗	↕
Volume (vph)	40	10	160	10	40	1560	30	1460
Lane Group Flow (vph)	0	108	174	76	43	1739	33	1598
Turn Type	Perm		Perm		Prot		pm+pt	
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8				6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	4.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	8.0	19.0	7.0	19.0
Total Split (s)	24.0	24.0	24.0	24.0	9.0	57.0	9.0	57.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	10.0%	63.3%	10.0%	63.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.5	1.0	0.5	1.0
Lost Time Adjust (s)	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	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		20.0	20.0	20.0	5.0	57.5	58.7	56.6
Actuated g/C Ratio		0.22	0.22	0.22	0.06	0.64	0.65	0.63
v/c Ratio		0.29	0.62	0.18	0.44	0.77	0.22	0.72
Control Delay		18.8	42.8	10.9	68.4	7.4	8.2	14.5
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay		18.8	42.8	10.9	68.4	7.4	8.2	14.5
LOS		B	D	B	E	A	A	B
Approach Delay		18.8		33.1		8.9		14.4
Approach LOS		B		C		A		B
Queue Length 50th (ft)		26	90	5	27	311	5	330
Queue Length 95th (ft)		71	#161	40	m39	331	13	421
Internal Link Dist (ft)		164		716		346		1326
Turn Bay Length (ft)					50		50	
Base Capacity (vph)		375	279	411	98	2252	180	2224
Starvation Cap Reductn		0	0	0	0	18	0	0
Spillback Cap Reductn		0	0	0	0	0	0	38
Storage Cap Reductn		0	0	0	0	0	0	0
Reduced v/c Ratio		0.29	0.62	0.18	0.44	0.78	0.18	0.73

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.77  
 Intersection Signal Delay: 13.2  
 Intersection Capacity Utilization 67.7%  
 Analysis Period (min) 15  
 # 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: 5: Kensett Ave & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Build Conditions 2030)  
Timing Plan: AM Peak Hour









Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	ø4	ø11
Lane Configurations	↶	↷	↶	↷	↶	↷		
Volume (vph)	20	0	10	1430	100	1630		
Lane Group Flow (vph)	22	11	11	1608	109	1783		
Turn Type	Perm		Perm		pm+pt			
Protected Phases		8		2	1	6	4	11
Permitted Phases	8		2		6			
Detector Phase	8	8	2	2	1	6		
Switch Phase								
Minimum Initial (s)	8.0	8.0	15.0	15.0	5.0	15.0	8.0	3.0
Minimum Split (s)	11.1	11.1	20.5	20.5	8.1	20.5	11.1	26.0
Total Split (s)	11.6	11.6	95.4	95.4	17.0	112.4	11.6	26.0
Total Split (%)	7.7%	7.7%	63.6%	63.6%	11.3%	74.9%	8%	17%
Yellow Time (s)	3.0	3.0	3.9	3.9	3.0	3.9	3.0	2.0
All-Red Time (s)	0.1	0.1	1.6	1.6	0.1	1.6	0.1	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	3.1	3.1	5.5	5.5	3.1	5.5		
Lead/Lag			Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes			
Recall Mode	None	None	Max	Max	None	Max	None	None
Act Effct Green (s)	8.0	8.0	97.9	97.9	109.6	109.5		
Actuated g/C Ratio	0.06	0.06	0.82	0.82	0.92	0.92		
v/c Ratio	0.21	0.03	0.06	0.56	0.37	0.55		
Control Delay	59.8	0.1	3.7	4.9	4.2	2.3		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5		
Total Delay	59.8	0.1	3.7	4.9	4.2	2.7		
LOS	E	A	A	A	A	A		
Approach Delay		39.9		4.9		2.8		
Approach LOS		D		A		A		
Queue Length 50th (ft)	17	0	2	216	7	140		
Queue Length 95th (ft)	46	0	6	267	12	167		
Internal Link Dist (ft)		84		1326		528		
Turn Bay Length (ft)	40		50		130			
Base Capacity (vph)	111	432	199	2895	374	3251		
Starvation Cap Reductn	0	0	0	0	0	858		
Spillback Cap Reductn	0	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0		
Reduced v/c Ratio	0.20	0.03	0.06	0.56	0.29	0.75		

Intersection Summary

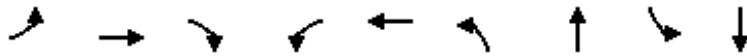
Cycle Length: 150	
Actuated Cycle Length: 119.1	
Natural Cycle: 90	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 4.1	Intersection LOS: A
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4	 ø11
17 s	95.4 s	11.6 s	26 s
 ø6		 ø8	
112.4 s		11.6 s	

Route 7 Corridor - Gap Analysis Study  
7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Build Conditions 2030)  
Timing Plan: AM Peak Hour



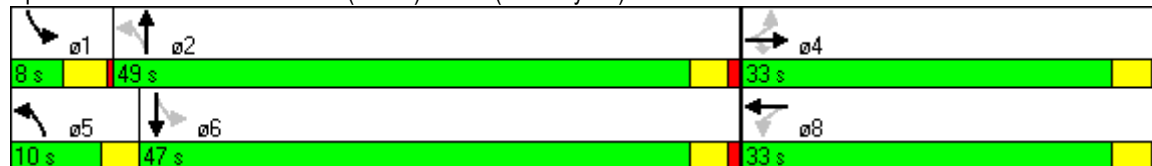
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↖	↗	↖	↔	↖	↕	↖	↕
Volume (vph)	10	10	10	290	110	70	1370	30	1460
Lane Group Flow (vph)	0	22	11	255	256	76	1554	33	1696
Turn Type	Perm		Perm	Perm		pm+pt		pm+pt	
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	7.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	19.0	8.0	19.0
Total Split (s)	33.0	33.0	33.0	33.0	33.0	10.0	49.0	8.0	47.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	11.1%	54.4%	8.9%	52.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		22.5	22.5	22.5	22.5	59.0	53.8	56.0	51.5
Actuated g/C Ratio		0.25	0.25	0.25	0.25	0.66	0.60	0.62	0.57
v/c Ratio		0.06	0.03	0.78	0.62	0.34	0.74	0.17	0.84
Control Delay		23.6	11.7	47.4	33.4	11.2	17.9	8.8	23.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay		23.6	11.7	47.4	33.4	11.2	18.2	8.8	23.1
LOS		C	B	D	C	B	B	A	C
Approach Delay		19.6			40.4		17.9		22.8
Approach LOS		B			D		B		C
Queue Length 50th (ft)		10	0	143	124	13	344	6	405
Queue Length 95th (ft)		26	12	213	187	38	#508	19	#675
Internal Link Dist (ft)		250			1316		528		4198
Turn Bay Length (ft)						50		50	
Base Capacity (vph)		514	518	424	521	221	2107	193	2011
Starvation Cap Reductn		0	0	0	0	0	114	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		0.04	0.02	0.60	0.49	0.34	0.78	0.17	0.84

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 23.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 83.5%  
 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: Comm Dr (ASML) & Rt 7 (Danbury Rd)









Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↙	↙	↕↕	↘	↙↙	↕↕
Volume (vph)	600	750	930	360	600	1130
Lane Group Flow (vph)	652	815	1011	391	652	1228
Turn Type		Free		pm+ov	Prot	
Protected Phases	4		2	4	1	6
Permitted Phases	4	Free		2		
Detector Phase	4		2	4	1	6
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0	20.0	4.0
Minimum Split (s)	25.0		14.0	25.0	25.0	20.0
Total Split (s)	44.0	0.0	39.0	44.0	27.0	66.0
Total Split (%)	40.0%	0.0%	35.5%	40.0%	24.5%	60.0%
Yellow Time (s)	4.0		3.0	4.0	4.0	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	4.0	5.0	5.0	4.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Min		None	Min	Min	Min
Act Effct Green (s)	25.9	94.3	32.6	62.5	21.7	59.4
Actuated g/C Ratio	0.27	1.00	0.35	0.66	0.23	0.63
v/c Ratio	0.69	0.51	0.83	0.37	0.82	0.55
Control Delay	35.1	1.2	35.8	7.8	45.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	1.2	35.8	7.8	45.9	11.6
LOS	D	A	D	A	D	B
Approach Delay	16.3		28.0			23.5
Approach LOS	B		C			C
Queue Length 50th (ft)	187	0	287	90	197	197
Queue Length 95th (ft)	245	0	#422	137	#325	318
Internal Link Dist (ft)	1626		4198			2523
Turn Bay Length (ft)	248				450	
Base Capacity (vph)	1250	1583	1285	1120	803	2266
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	0.52	0.51	0.79	0.35	0.81	0.54

**Intersection Summary**

Cycle Length: 110  
 Actuated Cycle Length: 94.3  
 Natural Cycle: 75  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 22.6  
 Intersection LOS: C  
 Intersection Capacity Utilization 71.6%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 8: Rt 33 (Westport Rd) & Rt 7 (Danbury Rd)

 ø1	 ø2	 ø4
27 s	39 s	44 s
 ø6		
66 s		

Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations												
Volume (vph)	50	50	460	90	250	20	600	230	410	820		
Lane Group Flow (vph)	54	87	295	303	272	22	652	250	446	945		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases											2	
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	15.0	15.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	21.0	21.0	9.0	9.0		11.0					21.0	8.0
Total Split (s)	16.0	16.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	22.0	9.0
Total Split (%)	17.8%	17.8%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	24%	10%
Yellow Time (s)	4.0	4.0	3.0	3.0		4.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		2.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	6.0	6.0	6.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					None	None
Act Effct Green (s)	10.1	10.1	18.1	18.1	36.2	3.0	25.2	25.2	17.1	37.2		
Actuated g/C Ratio	0.12	0.12	0.21	0.21	0.42	0.03	0.29	0.29	0.20	0.43		
v/c Ratio	0.26	0.38	0.84	0.85	0.34	0.35	0.64	0.39	0.66	0.63		
Control Delay	40.4	32.2	57.0	57.6	3.4	58.6	31.1	5.5	42.9	22.7		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	44.9		
Total Delay	40.4	32.2	57.0	57.6	3.4	58.6	31.1	5.5	47.5	67.5		
LOS	D	C	E	E	A	E	C	A	D	E		
Approach Delay		35.4		40.5			24.8			61.1		
Approach LOS		D		D			C			E		
Queue Length 50th (ft)	29	31	172	177	8	13	172	0	128	208		
Queue Length 95th (ft)	64	77	#325	#333	38	#41	232	55	m145	m233		
Internal Link Dist (ft)		362		686			885			165		
Turn Bay Length (ft)	90		380		190	50		900	130			
Base Capacity (vph)	205	228	351	357	795	62	1026	636	676	1508		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	161	638		
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Reduced v/c Ratio	0.26	0.38	0.84	0.85	0.34	0.35	0.64	0.39	0.87	1.09		

**Intersection Summary**

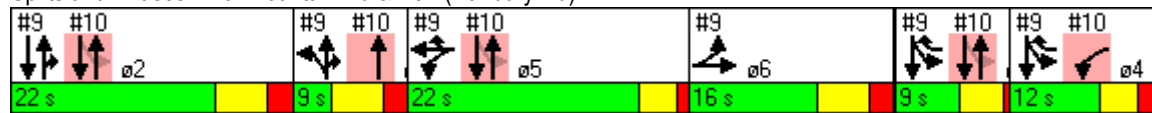
Cycle Length: 90  
 Actuated Cycle Length: 86.8  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 44.5  
 Intersection LOS: D  
 Intersection Capacity Utilization 63.5%  
 ICU Level of Service B  
 Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	12.0
Total Split (%)	13%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
<b>Intersection Summary</b>	

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

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour

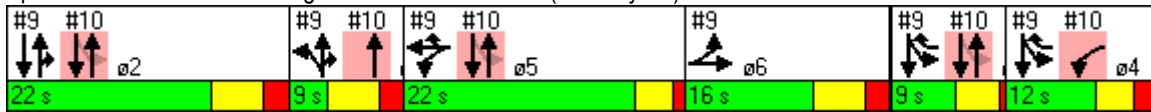


Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	50	870	50	1230					
Lane Group Flow (vph)	108	979	54	1337					
Turn Type				Perm					
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases				2 3 5					
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0				11.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	62.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	68.9%	58.9%	58.9%	10%	24%	10%	24%	18%
Yellow Time (s)	3.0				4.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				2.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	6.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	None	None	None	None
Act Effct Green (s)	7.0	51.7	36.6	36.6					
Actuated g/C Ratio	0.08	0.60	0.42	0.42					
v/c Ratio	0.61	0.47	0.29	0.90					
Control Delay	41.9	2.9	13.1	26.0					
Queue Delay	1.2	0.3	0.0	58.6					
Total Delay	43.1	3.2	13.1	84.6					
LOS	D	A	B	F					
Approach Delay	43.1	3.2		81.8					
Approach LOS	D	A		F					
Queue Length 50th (ft)	36	33	7	184					
Queue Length 95th (ft)	#105	37	23	#307					
Internal Link Dist (ft)	127	165		133					
Turn Bay Length (ft)									
Base Capacity (vph)	177	2101	186	1493					
Starvation Cap Reductn	0	506	0	0					
Spillback Cap Reductn	11	0	0	308					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	0.65	0.61	0.29	1.13					

Intersection Summary

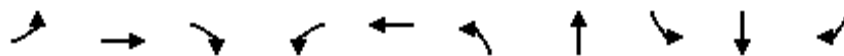
Cycle Length: 90	
Actuated Cycle Length: 86.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Build Conditions 2030)  
Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		↖	↗		↔	↖	↗		↖	↗
Volume (vph)	80	10	343	10	20	293	750	10	1040	110
Lane Group Flow (vph)	0	98	373	0	33	318	815	0	1141	120
Turn Type	Perm		pm+ov	Perm		pm+pt		Perm		Perm
Protected Phases		4	5		8	5	2		6	
Permitted Phases	4		4	8		2		6		6
Detector Phase	4	4	5	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	3.0	10.0	10.0	3.0	15.0	15.0	15.0	15.0
Minimum Split (s)	18.0	18.0	6.1	18.0	18.0	6.1	21.0	21.0	21.0	21.0
Total Split (s)	35.0	35.0	16.0	35.0	35.0	16.0	85.0	69.0	69.0	69.0
Total Split (%)	29.2%	29.2%	13.3%	29.2%	29.2%	13.3%	70.8%	57.5%	57.5%	57.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	0.1	2.0	2.0	0.1	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	3.1	5.0	5.0	3.1	6.0	6.0	6.0	6.0
Lead/Lag			Lead			Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)		13.4	46.2		13.4	98.5	95.6		64.7	64.7
Actuated g/C Ratio		0.11	0.38		0.11	0.82	0.80		0.54	0.54
v/c Ratio		0.65	0.58		0.18	0.67	0.55		1.15	0.14
Control Delay		70.3	28.2		48.8	37.1	6.1		105.4	6.4
Queue Delay		0.0	0.0		0.0	0.0	0.2		0.0	0.0
Total Delay		70.3	28.2		48.8	37.1	6.3		105.4	6.4
LOS		E	C		D	D	A		F	A
Approach Delay		37.0			48.8		15.0		95.9	
Approach LOS		D			D		B		F	
Queue Length 50th (ft)		74	194		24	187	172		~1013	16
Queue Length 95th (ft)		127	283		53	#314	328		#1316	48
Internal Link Dist (ft)		550			290		859		2587	
Turn Bay Length (ft)						100				
Base Capacity (vph)		338	647		414	475	1485		996	888
Starvation Cap Reductn		0	0		0	0	137		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		0.29	0.58		0.08	0.67	0.60		1.15	0.14

**Intersection Summary**

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.15  
 Intersection Signal Delay: 54.2  
 Intersection Capacity Utilization 120.3%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service H  
 ~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

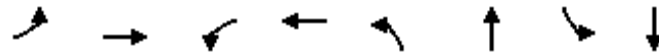
Queue shown is maximum after two cycles.

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↗	↘	↗	↘
Volume (vph)	20	50	60	230	80	640	30	930
Lane Group Flow (vph)	0	141	0	380	87	696	33	1033
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	26.0	26.0	26.0	26.0	56.0	56.0	8.0	64.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	62.2%	62.2%	8.9%	71.1%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	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	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		21.3		21.3	43.8	43.8	55.0	51.9
Actuated g/C Ratio		0.26		0.26	0.53	0.53	0.66	0.62
v/c Ratio		0.33		0.86	0.84	0.71	0.10	0.89
Control Delay		21.4		51.6	78.1	19.6	5.4	25.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		21.4		51.6	78.1	19.6	5.4	25.0
LOS		C		D	E	B	A	C
Approach Delay		21.4		51.6		26.1		24.4
Approach LOS		C		D		C		C
Queue Length 50th (ft)		44		205	37	263	5	420
Queue Length 95th (ft)		97		#373	#133	388	14	#755
Internal Link Dist (ft)		407		189		2835		1876
Turn Bay Length (ft)					94		220	
Base Capacity (vph)		443		454	110	1045	347	1208
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		0.32		0.84	0.79	0.67	0.10	0.86

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 83.4  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 29.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 100.6%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)





Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	40	950	40	680
Lane Group Flow (vph)	76	1131	0	782
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	23.0	79.0	8.0	87.0
Total Split (%)	20.9%	71.8%	7.3%	79.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	19.9	63.8		73.2
Actuated g/C Ratio	0.20	0.66		0.76
v/c Ratio	0.23	0.92		0.99
Control Delay	41.6	29.2		46.1
Queue Delay	0.0	0.0		0.0
Total Delay	41.6	29.2		46.1
LOS	D	C		D
Approach Delay	41.6	29.2		46.1
Approach LOS	D	C		D
Queue Length 50th (ft)	47	624		~239
Queue Length 95th (ft)	92	#1015		#528
Internal Link Dist (ft)	592	4303		332
Turn Bay Length (ft)				
Base Capacity (vph)	337	1290		799
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.23	0.88		0.98

**Intersection Summary**

Cycle Length: 110  
 Actuated Cycle Length: 96.2  
 Natural Cycle: 110  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 36.3  
 Intersection Capacity Utilization 92.6%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service F

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

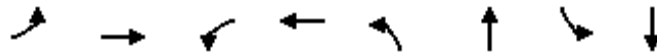
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)

 ø2	 ø4
87 s	23 s
 ø5	 ø6
8 s	79 s

Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	30	20	40	40	20	660	20	900
Lane Group Flow (vph)	0	77	0	119	0	761	0	1033
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)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	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
Total Lost Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		22.4		22.4		49.2		49.2
Actuated g/C Ratio		0.29		0.29		0.69		0.69
v/c Ratio		0.17		0.26		0.61		0.82
Control Delay		24.0		25.0		12.3		20.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		24.0		25.0		12.3		20.3
LOS		C		C		B		C
Approach Delay		24.0		25.0		12.3		20.3
Approach LOS		C		C		B		C
Queue Length 50th (ft)		30		47		230		414
Queue Length 95th (ft)		64		92		358		#736
Internal Link Dist (ft)		138		187		212		697
Turn Bay Length (ft)								
Base Capacity (vph)		493		507		1238		1262
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		0.16		0.23		0.61		0.82

**Intersection Summary**

Cycle Length: 84  
 Actuated Cycle Length: 70.9  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 17.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 83.8%  
 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: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour

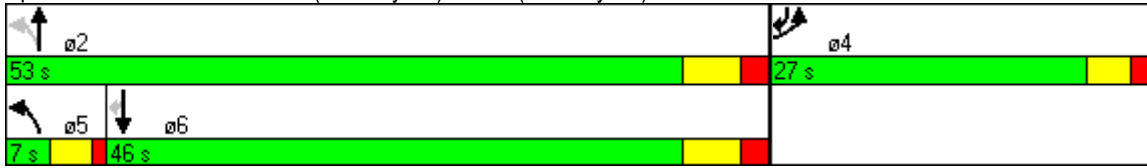


Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	474	50	634	785	755
Lane Group Flow (vph)	613	0	743	853	821
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	27.0	7.0	53.0	46.0	27.0
Total Split (%)	33.8%	8.8%	66.3%	57.5%	33.8%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effect Green (s)	20.1		43.7	36.7	62.8
Actuated g/C Ratio	0.27		0.58	0.49	0.84
v/c Ratio	0.66		0.54	0.93	0.56
Control Delay	27.8		11.1	37.3	1.7
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	27.8		11.1	37.3	1.7
LOS	C		B	D	A
Approach Delay	27.8		11.1	19.8	
Approach LOS	C		B	B	
Queue Length 50th (ft)	132		86	352	0
Queue Length 95th (ft)	186		126	#626	10
Internal Link Dist (ft)	1007		425	2009	
Turn Bay Length (ft)	180				
Base Capacity (vph)	993		1411	956	1464
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	0.62		0.53	0.89	0.56

**Intersection Summary**

Cycle Length: 80  
 Actuated Cycle Length: 74.9  
 Natural Cycle: 80  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.93  
 Intersection Signal Delay: 19.3  
 Intersection Capacity Utilization 81.2%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)





Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	60	40	20	970	1560	
Lane Group Flow (vph)	65	43	22	1054	1729	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	24.0
Total Split (s)	28.0	28.0	10.2	51.8	51.8	28.0
Total Split (%)	31.1%	31.1%	11.3%	57.6%	57.6%	31%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effct Green (s)	24.0	24.0	63.3	60.3	60.3	
Actuated g/C Ratio	0.27	0.27	0.70	0.67	0.67	
v/c Ratio	0.14	0.09	0.10	0.44	0.73	
Control Delay	26.2	8.7	6.5	10.8	4.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.2	8.7	6.5	10.8	4.6	
LOS	C	A	A	B	A	
Approach Delay	19.2			10.7	4.6	
Approach LOS	B			B	A	
Queue Length 50th (ft)	28	0	4	142	1	
Queue Length 95th (ft)	60	25	12	257	#41	
Internal Link Dist (ft)	408			1795	86	
Turn Bay Length (ft)			80			
Base Capacity (vph)	472	454	221	2372	2366	
Starvation Cap Reductn	0	0	0	0	1	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.14	0.09	0.10	0.44	0.73	

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green, Master Intersection  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 7.4  
 Intersection LOS: A  
 Intersection Capacity Utilization 70.7%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)





Lane Group	WBR	NBT	SBT	ø1	ø4
Lane Configurations	↖	↕↔	↕↕		
Volume (vph)	10	1010	1590		
Lane Group Flow (vph)	11	1120	1728		
Turn Type	Perm				
Protected Phases		2	6	1	4
Permitted Phases	7				
Detector Phase	7	2	6		
Switch Phase					
Minimum Initial (s)	5.0	15.0	15.0	7.1	24.0
Minimum Split (s)	24.0	19.0	19.0	10.2	28.0
Total Split (s)	28.0	51.8	51.8	10.2	28.0
Total Split (%)	31.1%	57.6%	57.6%	11%	31%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		
Total Lost Time (s)	3.1	4.0	4.0		
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	None	None
Act Effct Green (s)	20.9	60.3	60.3		
Actuated g/C Ratio	0.23	0.67	0.67		
v/c Ratio	0.02	0.47	0.73		
Control Delay	0.1	3.2	16.5		
Queue Delay	0.0	0.0	0.0		
Total Delay	0.1	3.2	16.6		
LOS	A	A	B		
Approach Delay		3.2	16.6		
Approach LOS		A	B		
Queue Length 50th (ft)	0	34	321		
Queue Length 95th (ft)	0	41	#631		
Internal Link Dist (ft)		86	664		
Turn Bay Length (ft)					
Base Capacity (vph)	583	2366	2372		
Starvation Cap Reductn	0	100	0		
Spillback Cap Reductn	0	0	30		
Storage Cap Reductn	0	0	0		
Reduced v/c Ratio	0.02	0.49	0.74		

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 11.3  
 Intersection Capacity Utilization 47.3%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↶	↷	↕	↷	↕
Volume (vph)	50	180	1060	40	1550
Lane Group Flow (vph)	54	196	1174	43	1685
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	Min	None	Min
Act Effct Green (s)	6.8	6.8	41.4	46.8	45.9
Actuated g/C Ratio	0.11	0.11	0.68	0.73	0.75
v/c Ratio	0.27	0.56	0.49	0.12	0.63
Control Delay	29.7	12.0	6.4	2.7	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	12.0	6.4	2.7	4.9
LOS	C	B	A	A	A
Approach Delay	15.8		6.4		4.9
Approach LOS	B		A		A
Queue Length 50th (ft)	20	1	104	2	99
Queue Length 95th (ft)	50	53	180	9	195
Internal Link Dist (ft)	336		3518		2397
Turn Bay Length (ft)				80	
Base Capacity (vph)	635	691	2404	398	2732
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	0.09	0.28	0.49	0.11	0.62

**Intersection Summary**

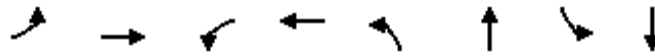
Cycle Length: 88.1	
Actuated Cycle Length: 60.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 6.3	Intersection LOS: A
Intersection Capacity Utilization 53.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study  
 19: Old Towne Road & Rt 7 (Danbury Rd)

Build Conditions 2030)  
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↗	↘	↗	↘
Volume (vph)	20	0	22	0	20	1049	23	1384
Lane Group Flow (vph)	0	44	0	49	22	1147	25	1526
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	10.0	21.0	21.0	21.0
Total Split (s)	16.0	16.0	16.0	16.0	10.0	104.0	94.0	94.0
Total Split (%)	13.3%	13.3%	13.3%	13.3%	8.3%	86.7%	78.3%	78.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)		10.2		10.2	101.8	103.0	96.6	96.6
Actuated g/C Ratio		0.08		0.08	0.85	0.86	0.80	0.80
v/c Ratio		0.30		0.32	0.16	0.72	0.08	1.02
Control Delay		36.4		36.2	4.6	7.6	3.5	29.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	13.6
Total Delay		36.4		36.2	4.6	7.6	3.5	42.7
LOS		D		D	A	A	A	D
Approach Delay		36.4		36.2		7.6		42.1
Approach LOS		D		D		A		D
Queue Length 50th (ft)		16		18	2	312	4	~1398
Queue Length 95th (ft)		54		57	7	488	m4	m#1238
Internal Link Dist (ft)		148		203		262		859
Turn Bay Length (ft)					150		150	
Base Capacity (vph)		158		162	134	1598	312	1497
Starvation Cap Reductn		0		0	0	0	0	54
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.28		0.30	0.16	0.72	0.08	1.06

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 27.5  
 Intersection Capacity Utilization 91.6%  
 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: 19: Old Towne Road & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study  
1: Grist Mill Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT	
Lane Configurations									
Volume (vph)	1550	10	30	10	540	750	10	550	
Lane Group Flow (vph)	1685	446	44	11	464	960	11	2011	
Turn Type	Split		custom		Prot		Prot		
Protected Phases	4	4	8	8	5	2	1	6	
Permitted Phases					8		2		
Detector Phase	4	4	8	8	5	2	1	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)	22.0	22.0	22.0	22.0	21.5	21.0	8.0	21.5	
Total Split (s)	47.0	47.0	22.0	22.0	33.0	73.0	8.0	48.0	
Total Split (%)	31.3%	31.3%	14.7%	14.7%	22.0%	48.7%	5.3%	32.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	3.0	3.5	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	
Lead/Lag					Lead	Lag	Lead	Lag	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	Min	Min	Min	Min	None	C-Max	None	C-Max	
Act Effct Green (s)	41.0	41.0	9.0	9.0	35.0	83.0	6.5	43.0	
Actuated g/C Ratio	0.27	0.27	0.06	0.06	0.23	0.55	0.04	0.29	
v/c Ratio	1.80	0.59	0.40	0.10	1.23	0.75	0.14	1.91dr	
Control Delay	394.3	7.8	77.7	31.8	172.7	25.6	72.8	339.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	394.3	7.8	77.7	31.8	172.7	25.6	72.8	339.2	
LOS	F	A	E	C	F	C	E	F	
Approach Delay	313.4		68.5		73.5		337.8		
Approach LOS	F		E		E		F		
Queue Length 50th (ft)	~1271	8	42	0	~615	312	11	~1365	
Queue Length 95th (ft)	#1406	103	84	21	#900	395	33	#1500	
Internal Link Dist (ft)	936		258		771		1601		
Turn Bay Length (ft)	190			175		500		60	
Base Capacity (vph)	938	751	196	179	376	1285	76	1193	
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	1.80	0.59	0.22	0.06	1.23	0.75	0.14	1.69	

Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.80  
 Intersection Signal Delay: 259.1  
 Intersection Capacity Utilization 146.1%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.

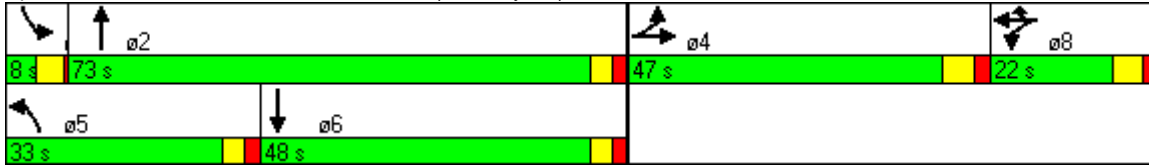
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 2: I-Park Dr & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations		↕		↕	↕	↕	↕↕	↕	↕↕	
Volume (vph)	60	60	360	20	190	60	1890	200	1320	
Lane Group Flow (vph)	0	315	0	413	207	65	2467	217	1457	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	12.0	21.0	12.0	21.0	22.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	13.3%	23.3%	13.3%	23.3%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	2.0	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	3.6	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effct Green (s)		29.7		29.7	29.7	39.4	31.5	52.0	44.6	
Actuated g/C Ratio		0.33		0.33	0.33	0.44	0.35	0.58	0.50	
v/c Ratio		0.79		1.47	0.35	0.33	2.02	0.57	0.83	
Control Delay		36.5		257.0	13.4	14.8	482.2	20.2	25.6	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		36.5		257.0	13.4	14.8	482.2	20.2	25.6	
LOS		D		F	B	B	F	C	C	
Approach Delay		36.5		175.7			470.2		24.9	
Approach LOS		D		F			F		C	
Queue Length 50th (ft)		120		~325	43	15	~1180	58	367	
Queue Length 95th (ft)		#267		#504	98	32	#1355	129	#502	
Internal Link Dist (ft)		174		156			1601		796	
Turn Bay Length (ft)					60	125		390		
Base Capacity (vph)		397		281	591	267	1224	379	1751	
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		1.47	0.35	0.24	2.02	0.57	0.83	

Intersection Summary








Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 2.02  
 Intersection Signal Delay: 263.1  
 Intersection Capacity Utilization 130.1%  
 Analysis Period (min) 15  
 Intersection LOS: F  
 ICU Level of Service H  
 ~ 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: 2: I-Park Dr & Rt 7 (Danbury Rd) #7

 ø1	 ø2	 ø4	 ø11
12 s	21 s	35 s	22 s
 ø5	 ø6	 ø8	
12 s	21 s	35 s	

Route 7 Corridor - Gap Analysis Study  
 3: Foxboro Drive & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	70	70	1900	50	1580
Lane Group Flow (vph)	76	76	2185	54	1717
Turn Type	custom		pm+pt		
Protected Phases	8	8	2	1	6
Permitted Phases	8		6		
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	19.0	19.0	58.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	14.5%	78.9%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effect Green (s)	9.1	9.1	66.4	76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74	0.84	0.83
v/c Ratio	0.42	0.33	0.84	0.24	0.59
Control Delay	44.8	13.2	16.0	4.6	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	13.2	16.0	4.6	4.7
LOS	D	B	B	A	A
Approach Delay	29.0	16.0		4.7	
Approach LOS	C	B		A	
Queue Length 50th (ft)	42	0	478	4	154
Queue Length 95th (ft)	82	39	#804	14	252
Internal Link Dist (ft)	424	796		1174	
Turn Bay Length (ft)	70	200			
Base Capacity (vph)	295	327	2590	279	2925
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	0.26	0.23	0.84	0.19	0.59

Intersection Summary

Cycle Length: 90.1  
 Actuated Cycle Length: 90.1  
 Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 11.6  
 Intersection Capacity Utilization 70.1%  
 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: 3: Foxboro Drive & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
4: Kent Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↕	↙	↕	↙	↕
Volume (vph)	60	0	10	120	1750	10	1360
Lane Group Flow (vph)	0	141	11	130	1902	11	1630
Turn Type	Perm			pm+pt		pm+pt	
Protected Phases		4	8	5	2	1	6
Permitted Phases	4			2		6	
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	20.0	20.0	4.0	5.0	15.0	4.0	15.0
Minimum Split (s)	29.0	29.0	20.0	9.0	19.0	8.0	19.0
Total Split (s)	27.0	27.0	27.0	9.0	54.0	9.0	54.0
Total Split (%)	30.0%	30.0%	30.0%	10.0%	60.0%	10.0%	60.0%
Yellow Time (s)	3.0	3.0	3.5	3.5	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lost Time Adjust (s)	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	4.0
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		20.0	20.0	61.6	60.0	57.0	51.3
Actuated g/C Ratio		0.22	0.22	0.68	0.67	0.63	0.57
v/c Ratio		0.37	0.03	0.61	0.81	0.06	0.82
Control Delay		20.0	27.8	24.4	15.5	4.0	12.0
Queue Delay		0.0	0.0	0.0	0.5	0.0	0.0
Total Delay		20.1	27.8	24.4	16.0	4.0	12.0
LOS		C	C	C	B	A	B
Approach Delay		20.1	27.8		16.5		12.0
Approach LOS		C	C		B		B
Queue Length 50th (ft)		37	5	22	331	1	110
Queue Length 95th (ft)		90	19	80	#691	m2	128
Internal Link Dist (ft)		1288	223		1174		346
Turn Bay Length (ft)				200		50	
Base Capacity (vph)		428	476	213	2359	195	1999
Starvation Cap Reductn		0	0	0	0	0	0
Spillback Cap Reductn		2	0	0	144	0	0
Storage Cap Reductn		0	0	0	0	0	0
Reduced v/c Ratio		0.33	0.02	0.61	0.86	0.06	0.82

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 14.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 78.4%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

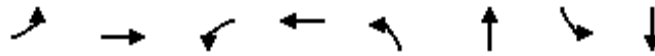
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 5: Comm. Dr. & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↖	↗	↖	↗	↖	↗
Volume (vph)	30	0	70	0	20	1670	70	1380
Lane Group Flow (vph)	0	87	76	33	22	1945	76	1511
Turn Type	Perm		Perm		pm+pt		pm+pt	
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	4.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	8.0	19.0	6.0	19.0
Total Split (s)	24.0	24.0	24.0	24.0	8.0	58.0	8.0	58.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	8.9%	64.4%	8.9%	64.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.5	1.0	0.0	1.0
Lost Time Adjust (s)	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	3.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		17.2	20.0	20.0	64.3	61.9	66.5	64.4
Actuated g/C Ratio		0.19	0.22	0.22	0.71	0.69	0.74	0.72
v/c Ratio		0.26	0.26	0.08	0.10	0.81	0.47	0.60
Control Delay		15.7	31.9	0.4	2.9	8.1	17.0	10.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay		15.7	31.9	0.4	2.9	8.1	17.0	10.5
LOS		B	C	A	A	A	B	B
Approach Delay		15.7		22.3		8.0		10.8
Approach LOS		B		C		A		B
Queue Length 50th (ft)		15	36	0	1	52	12	212
Queue Length 95th (ft)		54	75	0	m2	#111	39	368
Internal Link Dist (ft)		164		716		346		1326
Turn Bay Length (ft)					50		50	
Base Capacity (vph)		380	290	423	231	2413	183	2530
Starvation Cap Reductn		0	0	0	0	0	0	0
Spillback Cap Reductn		2	0	0	0	0	0	149
Storage Cap Reductn		0	0	0	0	0	0	0
Reduced v/c Ratio		0.23	0.26	0.08	0.10	0.81	0.42	0.63

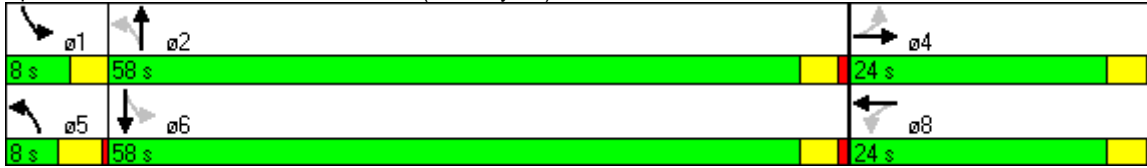
**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 80  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 9.8  
 Intersection Capacity Utilization 80.5%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

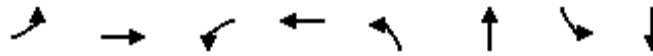
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 6: Self-Storage Driveway & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour









Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø11
Lane Configurations	↖	↗	↖	↗	↖	↗	↖	↗	
Volume (vph)	10	0	80	0	10	1790	10	1370	
Lane Group Flow (vph)	11	33	87	87	11	1968	11	1500	
Turn Type	Perm		Perm		Perm		pm+pt		
Protected Phases		4		8		2	1	6	11
Permitted Phases	4		8		2		6		
Detector Phase	4	4	8	8	2	2	1	6	
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	15.0	15.0	5.0	15.0	3.0
Minimum Split (s)	11.1	11.1	11.1	11.1	20.5	20.5	8.1	20.5	26.0
Total Split (s)	16.0	16.0	16.0	16.0	45.5	45.5	11.1	56.6	26.0
Total Split (%)	16.2%	16.2%	16.2%	16.2%	46.1%	46.1%	11.3%	57.4%	26%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.9	3.9	3.0	3.9	2.0
All-Red Time (s)	0.1	0.1	0.1	0.1	1.6	1.6	0.1	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	3.1	3.1	5.5	5.5	3.1	5.5	
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None
Act Effct Green (s)	10.1	10.1	10.1	10.1	78.3	78.3	82.3	79.9	
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.79	0.79	0.83	0.81	
v/c Ratio	0.10	0.07	0.62	0.15	0.05	0.70	0.06	0.52	
Control Delay	40.6	0.3	61.3	0.5	4.0	7.4	2.3	4.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	
Total Delay	40.6	0.3	61.3	0.5	4.0	7.4	2.3	4.4	
LOS	D	A	E	A	A	A	A	A	
Approach Delay		10.4		30.9		7.3		4.4	
Approach LOS		B		C		A		A	
Queue Length 50th (ft)	6	0	54	0	1	200	1	117	
Queue Length 95th (ft)	23	0	102	0	8	484	4	185	
Internal Link Dist (ft)		108		84		1326		528	
Turn Bay Length (ft)	40		40		50		130		
Base Capacity (vph)	147	536	179	630	240	2805	241	2866	
Starvation Cap Reductn	0	0	0	0	0	0	0	717	
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	0.07	0.06	0.49	0.14	0.05	0.70	0.05	0.70	

Intersection Summary

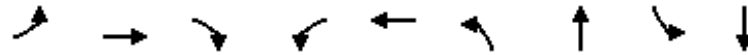
Cycle Length: 98.6  
 Actuated Cycle Length: 98.6  
 Offset: 14 (14%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 7.3  
 Intersection Capacity Utilization 69.1%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service C

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd) #7

 ø1	 ø2	 ø4	 ø11
11.1 s	45.5 s	16 s	26 s
 ø6		 ø8	
56.6 s		16 s	

Route 7 Corridor - Gap Analysis Study  
 7: Comm Dr (ASML) & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↗		↕	↖	↕↗	↖	↕↗
Volume (vph)	90	90	50	70	10	10	1730	80	1270
Lane Group Flow (vph)	0	196	54	0	174	11	2173	87	1402
Turn Type	Perm		Perm	Perm		pm+pt		pm+pt	
Protected Phases		4			8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	7.0	15.0	4.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	19.0	8.0	19.0
Total Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	60.0	8.0	58.0
Total Split (%)	24.4%	24.4%	24.4%	24.4%	24.4%	11.1%	66.7%	8.9%	64.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.5	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		18.0	18.0		18.0	64.2	57.6	62.8	62.0
Actuated g/C Ratio		0.20	0.20		0.20	0.71	0.64	0.70	0.69
v/c Ratio		0.74	0.15		0.69	0.04	0.97	0.54	0.58
Control Delay		52.4	9.9		39.1	3.7	30.8	22.0	9.0
Queue Delay		0.0	0.0		0.0	0.0	20.6	0.0	0.0
Total Delay		52.4	9.9		39.1	3.7	51.4	22.0	9.0
LOS		D	A		D	A	D	C	A
Approach Delay		43.2			39.1		51.1		9.7
Approach LOS		D			D		D		A
Queue Length 50th (ft)		106	0		65	2	~585	13	169
Queue Length 95th (ft)		#210	30		#158	6	#820	#60	325
Internal Link Dist (ft)		250			1316		528		4194
Turn Bay Length (ft)						50		50	
Base Capacity (vph)		265	360		254	307	2232	160	2434
Starvation Cap Reductn		0	0		0	0	160	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		0.74	0.15		0.69	0.04	1.05	0.54	0.58

Intersection Summary

Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 35.1  
 Intersection LOS: D  
 Intersection Capacity Utilization 86.8%  
 ICU Level of Service E  
 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: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 8: Rt 33 (Westport Rd) & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↖	↕↕	↖	↖↗	↕↕
Volume (vph)	320	620	1430	450	740	890
Lane Group Flow (vph)	348	674	1554	489	804	967
Turn Type		Free		pm+ov	Prot	
Protected Phases	4		2	4	1	6
Permitted Phases	4	Free		2		
Detector Phase	4		2	4	1	6
Switch Phase						
Minimum Initial (s)	20.0		10.0	20.0	20.0	20.0
Minimum Split (s)	25.0		14.0	25.0	25.0	25.0
Total Split (s)	28.0	0.0	52.0	28.0	30.0	82.0
Total Split (%)	25.5%	0.0%	47.3%	25.5%	27.3%	74.5%
Yellow Time (s)	4.0		3.0	4.0	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)	5.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	Min		None	Min	Min	Min
Act Effct Green (s)	20.6	107.6	48.0	72.6	25.0	77.0
Actuated g/C Ratio	0.19	1.00	0.45	0.67	0.23	0.72
v/c Ratio	0.53	0.43	0.98	0.46	1.01	0.38
Control Delay	42.4	0.8	49.3	9.7	75.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	0.8	49.3	9.7	75.6	6.6
LOS	D	A	D	A	E	A
Approach Delay	15.0		39.8			37.9
Approach LOS	B		D			D
Queue Length 50th (ft)	112	0	536	140	~286	116
Queue Length 95th (ft)	158	0	#744	206	#435	164
Internal Link Dist (ft)	1650		4194			2471
Turn Bay Length (ft)	248				450	
Base Capacity (vph)	718	1583	1579	1082	798	2533
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	0.48	0.43	0.98	0.45	1.01	0.38

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 107.6  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 1.01  
 Intersection Signal Delay: 33.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 89.0%  
 ICU Level of Service E  
 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: 8: Rt 33 (Westport Rd) & Rt 7 (Danbury Rd) #7

↙ ø1	↑ ø2	↘ ø4
30 s	52 s	28 s
↓ ø6		
82 s		

Route 7 Corridor - Gap Analysis Study  
 9: Mountain Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations												
Volume (vph)	60	70	300	40	470	20	910	650	460	760		
Lane Group Flow (vph)	65	119	183	186	511	22	989	707	500	891		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases												
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	16.0	16.0	9.0	9.0		9.0					22.0	8.0
Total Split (s)	16.0	16.0	16.0	16.0	36.0	11.0	38.0	38.0	20.0	47.0	27.0	10.0
Total Split (%)	17.8%	17.8%	17.8%	17.8%	40.0%	12.2%	42.2%	42.2%	22.2%	52.2%	30%	11%
Yellow Time (s)	4.0	4.0	3.0	3.0		3.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		1.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					C-Max	None
Act Effct Green (s)	10.0	10.0	12.0	12.0	28.0	7.0	34.0	34.0	16.0	41.0		
Actuated g/C Ratio	0.11	0.11	0.13	0.13	0.31	0.08	0.38	0.38	0.18	0.46		
v/c Ratio	0.33	0.55	0.82	0.82	0.85	0.16	0.74	0.76	0.82	0.56		
Control Delay	42.0	39.9	66.8	66.8	28.5	41.7	28.3	11.7	47.0	13.0		
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	28.9	11.7		
Total Delay	42.0	39.9	66.8	66.8	28.6	41.7	28.4	11.7	76.0	24.7		
LOS	D	D	E	E	C	D	C	B	E	C		
Approach Delay		40.6		44.6			21.7			43.1		
Approach LOS		D		D			C			D		
Queue Length 50th (ft)	35	51	108	109	121	12	251	64	141	107		
Queue Length 95th (ft)	75	106	#226	#228	#286	36	325	220	m151	m125		
Internal Link Dist (ft)		362		686			885			165		
Turn Bay Length (ft)	90		380		190	50		900	130			
Base Capacity (vph)	197	218	224	227	602	138	1337	935	610	1601		
Starvation Cap Reductn	0	0	0	0	0	0	0	0	128	691		
Spillback Cap Reductn	0	0	0	0	1	0	23	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0		
Reduced v/c Ratio	0.33	0.55	0.82	0.82	0.85	0.16	0.75	0.76	1.04	0.98		

Intersection Summary

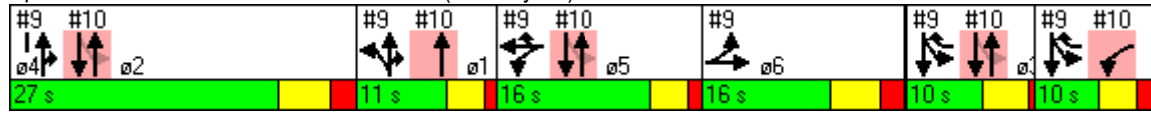
Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.91  
 Intersection Signal Delay: 34.5  
 Intersection LOS: C  
 Intersection Capacity Utilization 74.3%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.

Lane Group	ø4
Lane Configurations	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	10.0
Total Split (%)	11%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Queue shown is maximum after two cycles.

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

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	120	1380	80	1160					
Lane Group Flow (vph)	250	1565	87	1261					
Turn Type			Perm						
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases			2 3 5						
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	10.0
Minimum Split (s)	10.0				9.0	22.0	8.0	9.0	16.0
Total Split (s)	10.0	64.0	53.0	53.0	11.0	27.0	10.0	16.0	16.0
Total Split (%)	11.1%	71.1%	58.9%	58.9%	12%	30%	11%	18%	18%
Yellow Time (s)	3.0				3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				1.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	4.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	C-Max	None	None	None
Act Effct Green (s)	5.0	56.0	35.0	35.0					
Actuated g/C Ratio	0.06	0.62	0.39	0.39					
v/c Ratio	1.91	0.71	1.16	0.92					
Control Delay	459.1	4.7	178.6	25.6					
Queue Delay	41.2	0.7	0.0	23.8					
Total Delay	500.3	5.4	178.6	49.5					
LOS	F	A	F	D					
Approach Delay	500.3	5.4		57.8					
Approach LOS	F	A		E					
Queue Length 50th (ft)	~201	60	~39	138					
Queue Length 95th (ft)	#351	79	#154	#295					
Internal Link Dist (ft)	127	165		133					
Turn Bay Length (ft)									
Base Capacity (vph)	131	2192	75	1376					
Starvation Cap Reductn	0	290	0	0					
Spillback Cap Reductn	6	0	0	169					
Storage Cap Reductn	0	0	0	0					
Reduced v/c Ratio	2.00	0.82	1.16	1.04					

**Intersection Summary**

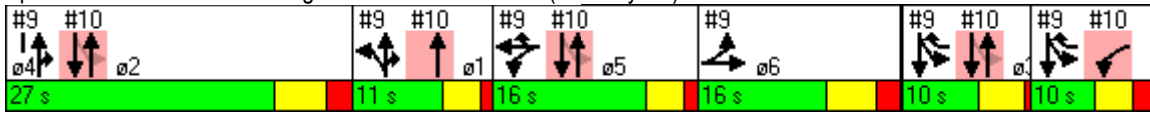
Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.91  
 Intersection Signal Delay: 66.8  
 Intersection Capacity Utilization 78.4%  
 Analysis 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: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 11: Branchville Rd (Rt 102) & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations		↕	↗	↕	↖	↗		↕	↗
Volume (vph)	144	20	370	10	358	1210	10	950	93
Lane Group Flow (vph)	0	179	402	22	389	1315	0	1044	101
Turn Type	Perm		pm+ov		pm+pt		Perm		Perm
Protected Phases		4	5	8	5	2		6	
Permitted Phases	4		4		2		6		6
Detector Phase	4	4	5	8	5	2	6	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	3.0	10.0	3.0	15.0	15.0	15.0	15.0
Minimum Split (s)	18.0	18.0	6.1	18.0	6.1	21.0	21.0	21.0	21.0
Total Split (s)	20.0	20.0	23.0	20.0	23.0	100.0	77.0	77.0	77.0
Total Split (%)	16.7%	16.7%	19.2%	16.7%	19.2%	83.3%	64.2%	64.2%	64.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	0.1	2.0	0.1	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	3.1	5.0	3.1	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lead		Lag	Lag	Lag
Lead-Lag Optimize?			Yes		Yes		Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effect Green (s)		15.0	39.9	15.0	96.9	94.0		71.0	71.0
Actuated g/C Ratio		0.12	0.33	0.12	0.81	0.78		0.59	0.59
v/c Ratio		1.05	0.67	0.10	1.09	0.90		1.00	0.11
Control Delay		132.6	31.2	31.4	81.0	10.7		53.1	9.6
Queue Delay		0.0	0.0	0.0	0.0	5.0		16.5	0.0
Total Delay		132.6	31.2	31.4	81.0	15.6		69.6	9.6
LOS		F	C	C	F	B		E	A
Approach Delay		62.4		31.4		30.5		64.3	
Approach LOS		E		C		C		E	
Queue Length 50th (ft)		~150	197	8	~293	409		~765	28
Queue Length 95th (ft)		#297	315	33	m#259	m398		#1096	53
Internal Link Dist (ft)		550		303		859		2587	
Turn Bay Length (ft)					100				20
Base Capacity (vph)		171	598	227	358	1459		1044	942
Starvation Cap Reductn		0	0	0	0	104		0	0
Spillback Cap Reductn		0	3	0	0	0		52	0
Storage Cap Reductn		0	0	0	0	0		0	0
Reduced v/c Ratio		1.05	0.68	0.10	1.09	0.97		1.05	0.11

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 47.1  
 Intersection Capacity Utilization 144.1%  
 Analysis Period (min) 15  
 Intersection LOS: D  
 ICU Level of Service H  
 ~ 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.

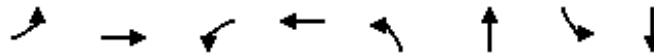
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Danbury Rd) #7

 ø2 100 s		 ø4 20 s	
 ø5 23 s	 ø6 77 s	 ø8 20 s	

Route 7 Corridor - Gap Analysis Study  
 12: Cains Hill Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



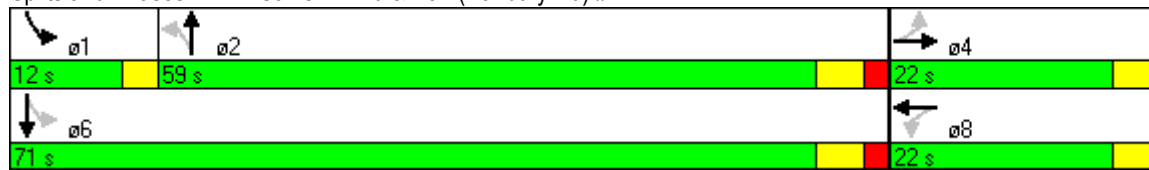
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↗	↘	↗	↘
Volume (vph)	20	160	20	40	90	1080	50	840
Lane Group Flow (vph)	0	316	0	108	98	1207	54	935
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	22.0	22.0	22.0	22.0	59.0	59.0	12.0	71.0
Total Split (%)	23.7%	23.7%	23.7%	23.7%	63.4%	63.4%	12.9%	76.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	2.0
Lost Time Adjust (s)	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	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		18.0		18.0	53.6	53.6	65.0	62.0
Actuated g/C Ratio		0.20		0.20	0.60	0.60	0.72	0.69
v/c Ratio		0.86		0.36	0.39	1.09	0.28	0.73
Control Delay		55.2		26.3	15.5	76.2	7.2	13.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		55.2		26.3	15.5	76.2	7.2	13.0
LOS		E		C	B	E	A	B
Approach Delay		55.2		26.3		71.7		12.7
Approach LOS		E		C		E		B
Queue Length 50th (ft)		158		36	27	~778	7	287
Queue Length 95th (ft)		#321		88	68	#1058	16	433
Internal Link Dist (ft)		407		189		2835		1876
Turn Bay Length (ft)					94		220	
Base Capacity (vph)		368		304	250	1105	249	1297
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		0.86		0.36	0.39	1.09	0.22	0.72

Intersection Summary

Cycle Length: 93  
 Actuated Cycle Length: 90  
 Natural Cycle: 100  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 46.5  
 Intersection Capacity Utilization 100.9%  
 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: 12: Cains Hill Rd & Rt 7 (Danbury Rd) #7





Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	60	870	20	1120
Lane Group Flow (vph)	108	979	0	1239
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	23.0	79.0	8.0	87.0
Total Split (%)	20.9%	71.8%	7.3%	79.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effct Green (s)	19.0	73.1		81.1
Actuated g/C Ratio	0.17	0.66		0.74
v/c Ratio	0.36	0.79		0.99
Control Delay	44.3	19.2		39.0
Queue Delay	0.0	0.0		0.0
Total Delay	44.3	19.2		39.0
LOS	D	B		D
Approach Delay	44.3	19.2		39.0
Approach LOS	D	B		D
Queue Length 50th (ft)	68	445		591
Queue Length 95th (ft)	122	643		#1161
Internal Link Dist (ft)	592	4303		332
Turn Bay Length (ft)				
Base Capacity (vph)	296	1232		1249
Starvation Cap Reductn	0	0		0
Spillback Cap Reductn	0	0		0
Storage Cap Reductn	0	0		0
Reduced v/c Ratio	0.36	0.79		0.99

**Intersection Summary**

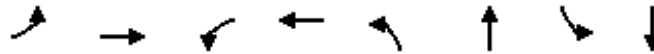
Cycle Length: 110  
 Actuated Cycle Length: 110  
 Natural Cycle: 110  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.99  
 Intersection Signal Delay: 30.9  
 Intersection Capacity Utilization 99.0%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 13: New Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 14: Haviland Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



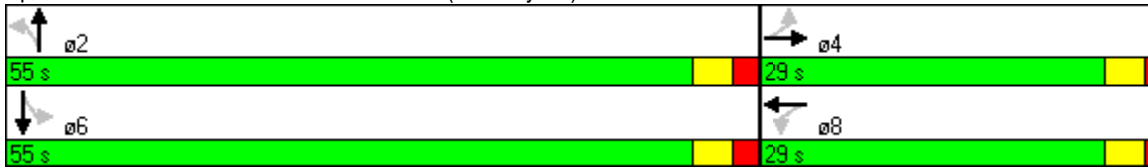
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Volume (vph)	40	40	20	30	20	1050	30	760
Lane Group Flow (vph)	0	108	0	98	0	1206	0	902
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	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
Total Lost Time (s)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		22.0		22.0		52.6		52.6
Actuated g/C Ratio		0.27		0.27		0.69		0.69
v/c Ratio		0.25		0.22		0.96		0.75
Control Delay		25.1		24.5		35.0		17.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		25.1		24.5		35.0		17.0
LOS		C		C		D		B
Approach Delay		25.1		24.5		35.0		17.0
Approach LOS		C		C		D		B
Queue Length 50th (ft)		43		38		~692		326
Queue Length 95th (ft)		84		77		#935		#615
Internal Link Dist (ft)		138		187		212		697
Turn Bay Length (ft)								
Base Capacity (vph)		465		485		1261		1199
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		0.23		0.20		0.96		0.75

**Intersection Summary**

Cycle Length: 84  
 Actuated Cycle Length: 75.8  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 27.1  
 Intersection Capacity Utilization 91.3%  
 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: 14: Haviland Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	915	80	1085	271	561
Lane Group Flow (vph)	1060	0	1266	295	610
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	32.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	7.8%	64.4%	56.7%	35.6%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effct Green (s)	27.3		39.5	32.4	65.8
Actuated g/C Ratio	0.35		0.51	0.42	0.84
v/c Ratio	0.88		0.82	0.38	0.43
Control Delay	36.0		20.8	16.6	1.0
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	36.0		20.8	16.6	1.0
LOS	D		C	B	A
Approach Delay	36.0		20.8	6.1	
Approach LOS	D		C	A	
Queue Length 50th (ft)	244		231	95	0
Queue Length 95th (ft)	#459		295	150	8
Internal Link Dist (ft)	1007		425	2009	
Turn Bay Length (ft)	180				
Base Capacity (vph)	1204		1764	932	1431
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	0.88		0.72	0.32	0.43

**Intersection Summary**

Cycle Length: 90  
 Actuated Cycle Length: 78  
 Natural Cycle: 60  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 21.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 88.7%  
 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: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 16: Bennetts Farm Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	20	40	40	1930	1250	
Lane Group Flow (vph)	22	43	43	2098	1446	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	28%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effct Green (s)	24.0	24.0	61.3	57.8	57.8	
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70	
v/c Ratio	0.04	0.09	0.14	0.85	0.59	
Control Delay	21.7	7.8	6.6	23.7	3.0	
Queue Delay	0.2	0.0	0.0	4.3	0.0	
Total Delay	21.9	7.8	6.6	28.0	3.0	
LOS	C	A	A	C	A	
Approach Delay	12.6			27.6	3.0	
Approach LOS	B			C	A	
Queue Length 50th (ft)	8	0	8	~710	20	
Queue Length 95th (ft)	25	23	19	#847	47	
Internal Link Dist (ft)	408			1795	86	
Turn Bay Length (ft)			80			
Base Capacity (vph)	511	488	318	2461	2442	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	294	0	0	295	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.10	0.09	0.14	0.97	0.59	

**Intersection Summary**

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 17.6  
 Intersection Capacity Utilization 80.0%  
 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: 16: Bennetts Farm Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 17: Triangles Plaza & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT	ø4
Lane Configurations	↶	↶	↷	↶	↷	
Volume (vph)	10	10	1920	10	1320	
Lane Group Flow (vph)	11	11	2120	11	1435	
Turn Type		Perm		pm+pt		
Protected Phases	7		2	1	6	4
Permitted Phases		7		6		
Detector Phase	7	7	2	1	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0	7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0	10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	13.4%	52.9%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0	0.1	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	4.0	3.1	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	None	C-Min	None
Act Effct Green (s)	16.9	16.9	57.8	61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70	0.74	0.70	
v/c Ratio	0.03	0.03	0.86	0.05	0.58	
Control Delay	20.9	11.4	14.0	6.3	14.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.9	11.4	14.0	6.3	14.0	
LOS	C	B	B	A	B	
Approach Delay	16.1		14.0		14.0	
Approach LOS	B		B		B	
Queue Length 50th (ft)	4	0	~206	2	318	
Queue Length 95th (ft)	16	12	#834	8	414	
Internal Link Dist (ft)	204		86		664	
Turn Bay Length (ft)						
Base Capacity (vph)	530	482	2457	261	2461	
Starvation Cap Reductn	0	0	1	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.02	0.02	0.86	0.04	0.58	

**Intersection Summary**

Cycle Length: 83.1  
 Actuated Cycle Length: 83.1  
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 14.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 64.9%  
 ICU Level of Service C  
 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: 17: Triangles Plaza & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 18: Starrs Plain Rd & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations					
Volume (vph)	30	50	1900	160	1330
Lane Group Flow (vph)	33	54	2108	174	1446
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	Min	Min	Min	None	None
Act Effct Green (s)	5.8	5.8	40.0	50.6	49.7
Actuated g/C Ratio	0.09	0.09	0.63	0.80	0.78
v/c Ratio	0.20	0.28	0.95	0.58	0.52
Control Delay	29.8	12.8	22.9	15.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	12.8	22.9	15.1	3.4
LOS	C	B	C	B	A
Approach Delay	19.3		22.9		4.7
Approach LOS	B		C		A
Queue Length 50th (ft)	12	0	333	9	68
Queue Length 95th (ft)	36	29	#596	69	114
Internal Link Dist (ft)	336		3518		2397
Turn Bay Length (ft)				80	
Base Capacity (vph)	606	577	2227	312	2773
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	0.05	0.09	0.95	0.56	0.52

**Intersection Summary**

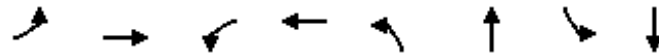
Cycle Length: 88.1  
 Actuated Cycle Length: 63.5  
 Natural Cycle: 90  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.95  
 Intersection Signal Delay: 15.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 76.8%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Danbury Rd) #7



Route 7 Corridor - Gap Analysis Study  
 19: Old Towne Road & Rt 7 (Danbury Rd) #7

Build Conditions (2030)  
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↗	↖	↗	↖
Volume (vph)	20	0	4	0	20	1551	40	1296
Lane Group Flow (vph)	0	44	0	34	22	1697	43	1431
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	4.0	15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	16.0	10.0	21.0	21.0	21.0
Total Split (s)	18.0	18.0	18.0	18.0	10.0	102.0	92.0	92.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	8.3%	85.0%	76.7%	76.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.2	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	1.8	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	7.0	5.0	5.0	6.0	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)		8.2		10.2	101.8	103.0	95.9	95.9
Actuated g/C Ratio		0.07		0.08	0.85	0.86	0.80	0.80
v/c Ratio		0.37		0.21	0.15	1.06	0.65	0.96
Control Delay		41.0		23.1	4.2	54.7	35.5	20.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.5
Total Delay		41.0		23.1	4.2	54.7	35.5	20.7
LOS		D		C	A	D	D	C
Approach Delay		41.0		23.1		54.1		21.1
Approach LOS		D		C		D		C
Queue Length 50th (ft)		17		3	2	~1502	10	~1205
Queue Length 95th (ft)		55		35	7	#1785	m13	m#1303
Internal Link Dist (ft)		181		200		261		859
Turn Bay Length (ft)					150		150	
Base Capacity (vph)		152		197	145	1597	66	1486
Starvation Cap Reductn		0		0	0	0	0	6
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.29		0.17	0.15	1.06	0.65	0.97

Intersection Summary

Cycle Length: 120  
 Actuated Cycle Length: 120  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.06  
 Intersection Signal Delay: 38.7  
 Intersection Capacity Utilization 101.4%  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.

Intersection LOS: D  
 ICU Level of Service G

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: 19: Old Towne Road & Rt 7 (Danbury Rd) #7

