Intersection	
Intersection Delay, s/veh	4.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	252	1271	523
Demand Flow Rate, veh/h	253	1282	531
Vehicles Circulating, veh/h	429	118	162
Vehicles Exiting, veh/h	264	564	118
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.2	0.6	11.2
Approach LOS	A	A	B

Lane	Left	Left	Bypass	Left
Designated Moves	LR	L	R	TR
Assumed Moves	LR	L	R	TR
RT Channelized			Free	
Lane Util	1.000	1.000		1.000
Critical Headway, s	5.193	5.193		5.193
Entry Flow, veh/h	253	162	1120	531
Cap Entry Lane, veh/h	736	1004	1919	961
Entry HV Adj Factor	0.996	1.000	0.990	0.984
Flow Entry, veh/h	252	162	1109	523
Cap Entry, veh/h	733	1004	1900	946
V/C Ratio	0.344	0.161	0.584	0.553
Control Delay, s/veh	9.2	5.1	0.0	11.2
LOS	A	A	A	B
95th %tile Queue, veh	2	1	4	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	111	126	152	0	0	88
Future Volume (Veh/h)	111	126	152	0	0	88
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.87	0.94	0.95	0.85	0.83	0.83
Hourly flow rate (vph)	128	134	160	0	0	106
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	160				550	160
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	160				550	160
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				100	88
cM capacity (veh/h)	1432				455	890

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	262	160	106
Volume Left	128	0	0
Volume Right	0	0	106
cSH	1432	1700	890
Volume to Capacity	0.09	0.09	0.12
Queue Length 95th (ft)	7	0	10
Control Delay (s)	4.2	0.0	9.6
Lane LOS	A		A
Approach Delay (s)	4.2	0.0	9.6
Approach LOS			A

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1	819	259	126
Future Volume (Veh/h)	0	0	1	819	259	126
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.95	0.95	0.88	0.88
Hourly flow rate (vph)	0	0	1	862	294	143
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1230	366	437			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1230	366	437			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	198	684	1134			

Direction, Lane #	NB 1	SB 1
Volume Total	863	437
Volume Left	1	0
Volume Right	0	143
cSH	1134	1700
Volume to Capacity	0.00	0.26
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS	A	
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	58	464	751	258	0
Future Volume (Veh/h)	71	58	464	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	89	73	494	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2080	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2080	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	0	90	61			
cM capacity (veh/h)	26	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	162	494	799	293
Volume Left	89	494	0	0
Volume Right	73	0	0	0
cSH	47	1280	1700	1700
Volume to Capacity	3.47	0.39	0.47	0.17
Queue Length 95th (ft)	Err	46	0	0
Control Delay (s)	Err	9.6	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	Err	3.7		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	929.4		
Intersection Capacity Utilization	56.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	129	464	0	0	127
Future Volume (Veh/h)	0	129	464	0	0	127
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.94	0.85	0.88	0.88
Hourly flow rate (vph)	0	161	494	0	0	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	494				655	494
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	494				655	494
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	75
cM capacity (veh/h)	1080				434	575

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	161	494	144
Volume Left	0	0	0
Volume Right	0	0	144
cSH	1700	1700	575
Volume to Capacity	0.09	0.29	0.25
Queue Length 95th (ft)	0	0	25
Control Delay (s)	0.0	0.0	13.3
Lane LOS			B
Approach Delay (s)	0.0	0.0	13.3
Approach LOS			B

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	58	464	751	258	0
Future Volume (Veh/h)	71	58	464	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	89	73	494	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2080	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2080	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	0	90	61			
cM capacity (veh/h)	26	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	162	494	799	293
Volume Left	89	494	0	0
Volume Right	73	0	0	0
cSH	47	1280	1700	1700
Volume to Capacity	3.46	0.39	0.47	0.17
Queue Length 95th (ft)	Err	46	0	0
Control Delay (s)	Err	9.6	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	Err	3.7		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	929.4		
Intersection Capacity Utilization	53.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	0	1	748	259	126
Future Volume (Veh/h)	71	0	1	748	259	126
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.95	0.95	0.88	0.88
Hourly flow rate (vph)	89	0	1	787	294	143
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1154	366	437			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1154	366	437			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	59	100	100			
cM capacity (veh/h)	220	684	1134			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	89	788	437
Volume Left	89	1	0
Volume Right	0	0	143
cSH	220	1134	1700
Volume to Capacity	0.41	0.00	0.26
Queue Length 95th (ft)	46	0	0
Control Delay (s)	32.1	0.0	0.0
Lane LOS	D	A	
Approach Delay (s)	32.1	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	58	464	751	258	0
Future Volume (Veh/h)	0	58	464	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	0	73	494	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2080	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2080	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	100	90	61			
cM capacity (veh/h)	26	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	73	494	799	293
Volume Left	0	494	0	0
Volume Right	73	0	0	0
cSH	751	1280	1700	1700
Volume to Capacity	0.10	0.39	0.47	0.17
Queue Length 95th (ft)	8	46	0	0
Control Delay (s)	10.3	9.6	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.3	3.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	58	464	0	0	127
Future Volume (Veh/h)	71	58	464	0	0	127
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.94	0.85	0.88	0.88
Hourly flow rate (vph)	89	73	494	0	0	144
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	494				745	494
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	494				745	494
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				100	75
cM capacity (veh/h)	1080				353	575

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	162	494	144
Volume Left	89	0	0
Volume Right	0	0	144
cSH	1080	1700	575
Volume to Capacity	0.08	0.29	0.25
Queue Length 95th (ft)	7	0	25
Control Delay (s)	5.1	0.0	13.3
Lane LOS	A		B
Approach Delay (s)	5.1	0.0	13.3
Approach LOS			B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	39.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	117.1
Intersection LOS	F

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	162	1293	437
Demand Flow Rate, veh/h	207	1301	440
Vehicles Circulating, veh/h	297	133	495
Vehicles Exiting, veh/h	638	370	939
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.5	164.4	17.3
Approach LOS	A	F	C

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	207	1301	440
Cap Entry Lane, veh/h	840	989	689
Entry HV Adj Factor	0.783	0.994	0.993
Flow Entry, veh/h	162	1293	437
Cap Entry, veh/h	657	983	684
V/C Ratio	0.247	1.315	0.639
Control Delay, s/veh	8.5	164.4	17.3
LOS	A	F	C
95th %tile Queue, veh	1	49	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1	817	259	99
Future Volume (Veh/h)	0	0	1	817	259	99
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.95	0.95	0.88	0.88
Hourly flow rate (vph)	0	0	1	860	294	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1212	350	407			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1212	350	407			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	203	697	1163			

Direction, Lane #	NB 1	SB 1
Volume Total	861	407
Volume Left	1	0
Volume Right	0	113
cSH	1163	1700
Volume to Capacity	0.00	0.24
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS	A	
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	45	288	751	258	0
Future Volume (Veh/h)	69	45	288	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	86	56	306	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1704	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1704	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	0	93	76			
cM capacity (veh/h)	58	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	142	306	799	293
Volume Left	86	306	0	0
Volume Right	56	0	0	0
cSH	92	1280	1700	1700
Volume to Capacity	1.54	0.24	0.47	0.17
Queue Length 95th (ft)	277	23	0	0
Control Delay (s)	372.2	8.7	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	372.2	2.4		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	36.1		
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	114	288	0	0	100
Future Volume (Veh/h)	0	114	288	0	0	100
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.94	0.85	0.88	0.88
Hourly flow rate (vph)	0	143	306	0	0	114
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	306				449	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	306				449	306
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	84
cM capacity (veh/h)	1266				571	734

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	143	306	114
Volume Left	0	0	0
Volume Right	0	0	114
cSH	1700	1700	734
Volume to Capacity	0.08	0.18	0.16
Queue Length 95th (ft)	0	0	14
Control Delay (s)	0.0	0.0	10.8
Lane LOS			B
Approach Delay (s)	0.0	0.0	10.8
Approach LOS			B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	45	288	751	258	0
Future Volume (Veh/h)	69	45	288	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	86	56	306	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1704	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1704	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	0	93	76			
cM capacity (veh/h)	58	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	142	306	799	293
Volume Left	86	306	0	0
Volume Right	56	0	0	0
cSH	93	1280	1700	1700
Volume to Capacity	1.53	0.24	0.47	0.17
Queue Length 95th (ft)	275	23	0	0
Control Delay (s)	365.6	8.7	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	365.6	2.4		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	35.4		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	0	1	748	259	99
Future Volume (Veh/h)	69	0	1	748	259	99
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.95	0.95	0.88	0.88
Hourly flow rate (vph)	86	0	1	787	294	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1140	350	407			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1140	350	407			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	100	100			
cM capacity (veh/h)	224	697	1163			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	86	788	407
Volume Left	86	1	0
Volume Right	0	0	113
cSH	224	1163	1700
Volume to Capacity	0.38	0.00	0.24
Queue Length 95th (ft)	42	0	0
Control Delay (s)	30.7	0.0	0.0
Lane LOS	D	A	
Approach Delay (s)	30.7	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (veh/h)	288	751	258	0	0	45
Future Volume (Veh/h)	288	751	258	0	0	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.88	0.88	0.80	0.80
Hourly flow rate (vph)	306	799	293	0	0	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293				1704	293
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293				1704	293
tC, single (s)	4.1				6.9	6.2
tC, 2 stage (s)						
tF (s)	2.2				4.0	3.3
p0 queue free %	76				100	93
cM capacity (veh/h)	1280				58	751

Direction, Lane #	NB 1	NB 2	SB 1	SE 1
Volume Total	306	799	293	56
Volume Left	306	0	0	0
Volume Right	0	0	0	56
cSH	1280	1700	1700	751
Volume to Capacity	0.24	0.47	0.17	0.07
Queue Length 95th (ft)	23	0	0	6
Control Delay (s)	8.7	0.0	0.0	10.2
Lane LOS	A			B
Approach Delay (s)	2.4		0.0	10.2
Approach LOS				B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	45	288	0	0	100
Future Volume (Veh/h)	69	45	288	0	0	100
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.94	0.85	0.88	0.88
Hourly flow rate (vph)	86	56	306	0	0	114
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	306				534	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	306				534	306
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				100	84
cM capacity (veh/h)	1266				476	734

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	142	306	114
Volume Left	86	0	0
Volume Right	0	0	114
cSH	1266	1700	734
Volume to Capacity	0.07	0.18	0.16
Queue Length 95th (ft)	5	0	14
Control Delay (s)	5.1	0.0	10.8
Lane LOS	A		B
Approach Delay (s)	5.1	0.0	10.8
Approach LOS			B

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	61.2
Intersection LOS	F

Approach	NB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1105	407	142
Demand Flow Rate, veh/h	1113	410	185
Vehicles Circulating, veh/h	129	306	297
Vehicles Exiting, veh/h	353	936	419
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	86.6	11.0	8.3
Approach LOS	F	B	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	1113	410	185
Cap Entry Lane, veh/h	993	832	840
Entry HV Adj Factor	0.993	0.993	0.768
Flow Entry, veh/h	1105	407	142
Cap Entry, veh/h	986	826	644
V/C Ratio	1.121	0.493	0.220
Control Delay, s/veh	86.6	11.0	8.3
LOS	F	B	A
95th %tile Queue, veh	29	3	1

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	162	1293	437
Demand Flow Rate, veh/h	207	1301	440
Vehicles Circulating, veh/h	297	133	495
Vehicles Exiting, veh/h	638	370	133
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.5	3.7	17.3
Approach LOS	A	A	C

Lane	Left	Left	Bypass	Left
Designated Moves	LR	L	R	TR
Assumed Moves	LR	L	R	TR
RT Channelized			Free	
Lane Util	1.000	1.000		1.000
Critical Headway, s	5.193	5.193		5.193
Entry Flow, veh/h	207	495	806	440
Cap Entry Lane, veh/h	840	989	1919	689
Entry HV Adj Factor	0.783	1.000	0.990	0.993
Flow Entry, veh/h	162	495	798	437
Cap Entry, veh/h	657	989	1900	684
V/C Ratio	0.247	0.500	0.420	0.639
Control Delay, s/veh	8.5	9.7	0.0	17.3
LOS	A	A	A	C
95th %tile Queue, veh	1	3	2	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	0	1	748	259	99
Future Volume (Veh/h)	69	0	1	748	259	99
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.95	0.95	0.88	0.88
Hourly flow rate (vph)	86	0	1	787	294	113
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1140	350	407			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1140	350	407			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	100	100			
cM capacity (veh/h)	224	697	1163			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	86	788	407
Volume Left	86	1	0
Volume Right	0	0	113
cSH	224	1163	1700
Volume to Capacity	0.38	0.00	0.24
Queue Length 95th (ft)	42	0	0
Control Delay (s)	30.7	0.0	0.0
Lane LOS	D	A	
Approach Delay (s)	30.7	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (veh/h)	288	751	258	0	0	45
Future Volume (Veh/h)	288	751	258	0	0	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.88	0.88	0.80	0.80
Hourly flow rate (vph)	306	799	293	0	0	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293				1704	293
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293				1704	293
tC, single (s)	4.1				6.9	6.2
tC, 2 stage (s)						
tF (s)	2.2				4.0	3.3
p0 queue free %	76				100	93
cM capacity (veh/h)	1280				58	751

Direction, Lane #	NB 1	NB 2	SB 1	SE 1
Volume Total	306	799	293	56
Volume Left	306	0	0	0
Volume Right	0	0	0	56
cSH	1280	1700	1700	751
Volume to Capacity	0.24	0.47	0.17	0.07
Queue Length 95th (ft)	23	0	0	6
Control Delay (s)	8.7	0.0	0.0	10.2
Lane LOS	A			B
Approach Delay (s)	2.4		0.0	10.2
Approach LOS				B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	45	288	751	258	0
Future Volume (Veh/h)	69	45	288	751	258	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.94	0.94	0.88	0.88
Hourly flow rate (vph)	86	56	306	799	293	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1704	293	293			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1704	293	293			
tC, single (s)	6.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	4.0	3.3	2.2			
p0 queue free %	0	93	76			
cM capacity (veh/h)	58	751	1280			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	142	306	799	293
Volume Left	86	306	0	0
Volume Right	56	0	0	0
cSH	93	1280	1700	1700
Volume to Capacity	1.53	0.24	0.47	0.17
Queue Length 95th (ft)	275	23	0	0
Control Delay (s)	365.6	8.7	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	365.6	2.4		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	35.4		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	45	288	0	0	100
Future Volume (Veh/h)	69	45	288	0	0	100
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.80	0.80	0.94	0.85	0.88	0.88
Hourly flow rate (vph)	86	56	306	0	0	114
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	306				534	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	306				534	306
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				100	84
cM capacity (veh/h)	1266				476	734

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	142	306	114
Volume Left	86	0	0
Volume Right	0	0	114
cSH	1266	1700	734
Volume to Capacity	0.07	0.18	0.16
Queue Length 95th (ft)	5	0	14
Control Delay (s)	5.1	0.0	10.8
Lane LOS	A		B
Approach Delay (s)	5.1	0.0	10.8
Approach LOS			B

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	28.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	61.2
Intersection LOS	F

Approach	NB	SB	NE
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	1105	407	142
Demand Flow Rate, veh/h	1113	410	185
Vehicles Circulating, veh/h	129	306	297
Vehicles Exiting, veh/h	353	936	419
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	86.6	11.0	8.3
Approach LOS	F	B	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	1113	410	185
Cap Entry Lane, veh/h	993	832	840
Entry HV Adj Factor	0.993	0.993	0.768
Flow Entry, veh/h	1105	407	142
Cap Entry, veh/h	986	826	644
V/C Ratio	1.121	0.493	0.220
Control Delay, s/veh	86.6	11.0	8.3
LOS	F	B	A
95th %tile Queue, veh	29	3	1

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	733	267	101
Demand Flow Rate, veh/h	733	269	102
Vehicles Circulating, veh/h	85	114	37
Vehicles Exiting, veh/h	54	704	346
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.9	6.2	4.1
Approach LOS	B	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	733	269	102
Cap Entry Lane, veh/h	1038	1008	1089
Entry HV Adj Factor	1.000	0.991	0.992
Flow Entry, veh/h	733	267	101
Cap Entry, veh/h	1038	1000	1080
V/C Ratio	0.706	0.267	0.094
Control Delay, s/veh	14.9	6.2	4.1
LOS	B	A	A
95th %tile Queue, veh	6	1	0

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	733	267	101
Demand Flow Rate, veh/h	733	269	102
Vehicles Circulating, veh/h	85	114	37
Vehicles Exiting, veh/h	54	704	114
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.9	0.5	4.1
Approach LOS	B	A	A

Lane	Left	Left	Bypass	Left
Designated Moves	LR	L	R	TR
Assumed Moves	LR	L	R	TR
RT Channelized			Free	
Lane Util	1.000	1.000		1.000
Critical Headway, s	5.193	5.193		5.193
Entry Flow, veh/h	733	37	232	102
Cap Entry Lane, veh/h	1038	1008	1919	1089
Entry HV Adj Factor	1.000	1.000	0.990	0.992
Flow Entry, veh/h	733	37	230	101
Cap Entry, veh/h	1038	1008	1900	1080
V/C Ratio	0.706	0.037	0.121	0.094
Control Delay, s/veh	14.9	3.9	0.0	4.1
LOS	B	A	A	A
95th %tile Queue, veh	6	0	0	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	241	69	13
Future Volume (Veh/h)	0	0	0	241	69	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.78	0.78	0.87	0.87
Hourly flow rate (vph)	0	0	0	309	79	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	396	86	94			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	396	86	94			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	613	978	1513			

Direction, Lane #	NB 1	SB 1
Volume Total	309	94
Volume Left	0	0
Volume Right	0	15
cSH	1700	1700
Volume to Capacity	0.18	0.06
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	16.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	308	18	175	73	0
Future Volume (Veh/h)	63	308	18	175	73	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.76	0.76	0.82	0.82
Hourly flow rate (vph)	72	350	24	230	89	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	367	89	89			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	89	89			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	64	98			
cM capacity (veh/h)	627	975	1519			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	422	24	230	89
Volume Left	72	24	0	0
Volume Right	350	0	0	0
cSH	890	1519	1700	1700
Volume to Capacity	0.47	0.02	0.14	0.05
Queue Length 95th (ft)	65	1	0	0
Control Delay (s)	12.6	7.4	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	12.6	0.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	7.2		
Intersection Capacity Utilization	38.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	381	18	0	0	13
Future Volume (Veh/h)	0	381	18	0	0	13
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.50	0.88	0.76	0.85	0.87	0.87
Hourly flow rate (vph)	0	433	24	0	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	24				457	24
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	24				457	24
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	1604				565	1058

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	433	24	15
Volume Left	0	0	0
Volume Right	0	0	15
cSH	1700	1700	1058
Volume to Capacity	0.25	0.01	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.0	0.0	8.5
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.5
Approach LOS			A

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	0	0	178	69	13
Future Volume (Veh/h)	63	0	0	178	69	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.50	0.50	0.78	0.78	0.87	0.87
Hourly flow rate (vph)	126	0	0	228	79	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	314	86	94			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	314	86	94			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	82	100	100			
cM capacity (veh/h)	683	978	1513			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	126	228	94
Volume Left	126	0	0
Volume Right	0	0	15
cSH	683	1700	1700
Volume to Capacity	0.18	0.13	0.06
Queue Length 95th (ft)	17	0	0
Control Delay (s)	11.5	0.0	0.0
Lane LOS	B		
Approach Delay (s)	11.5	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	308	18	175	73	0
Future Volume (Veh/h)	0	308	18	175	73	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.76	0.76	0.82	0.82
Hourly flow rate (vph)	0	350	24	230	89	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	367	89	89			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	367	89	89			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	64	98			
cM capacity (veh/h)	627	975	1519			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	350	24	230	89
Volume Left	0	24	0	0
Volume Right	350	0	0	0
cSH	975	1519	1700	1700
Volume to Capacity	0.36	0.02	0.14	0.05
Queue Length 95th (ft)	41	1	0	0
Control Delay (s)	10.7	7.4	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.7	0.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	29.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	308	18	0	0	13
Future Volume (Veh/h)	63	308	18	0	0	13
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.50	0.88	0.76	0.85	0.87	0.87
Hourly flow rate (vph)	126	350	24	0	0	15
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	24				626	24
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	24				626	24
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				100	99
cM capacity (veh/h)	1604				416	1058

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	476	24	15
Volume Left	126	0	0
Volume Right	0	0	15
cSH	1604	1700	1058
Volume to Capacity	0.08	0.01	0.01
Queue Length 95th (ft)	6	0	1
Control Delay (s)	2.5	0.0	8.5
Lane LOS	A		A
Approach Delay (s)	2.5	0.0	8.5
Approach LOS			A

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	29.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1	885	274	68
Future Volume (Veh/h)	0	0	1	885	274	68
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.87	0.87
Hourly flow rate (vph)	0	0	1	1066	315	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1422	354	393			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1422	354	393			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	151	694	1177			

Direction, Lane #	NB 1	SB 1
Volume Total	1067	393
Volume Left	1	0
Volume Right	0	78
cSH	1177	1700
Volume to Capacity	0.00	0.23
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS	A	
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	50.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	112	115	809	274	0
Future Volume (Veh/h)	77	112	115	809	274	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	108	158	139	975	330	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1583	330	330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1583	330	330			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.2			
p0 queue free %	0	78	89			
cM capacity (veh/h)	90	716	1241			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	266	139	975	330
Volume Left	108	139	0	0
Volume Right	158	0	0	0
cSH	187	1241	1700	1700
Volume to Capacity	1.42	0.11	0.57	0.19
Queue Length 95th (ft)	402	9	0	0
Control Delay (s)	265.8	8.3	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	265.8	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	42.0		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1	885	274	68
Future Volume (Veh/h)	0	0	1	885	274	68
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.87	0.87
Hourly flow rate (vph)	0	0	1	1066	315	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1422	354	393			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1422	354	393			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	151	694	1177			

Direction, Lane #	NB 1	SB 1
Volume Total	1067	393
Volume Left	1	0
Volume Right	0	78
cSH	1177	1700
Volume to Capacity	0.00	0.23
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS	A	
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	50.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	112	115	809	274	0
Future Volume (Veh/h)	77	112	115	809	274	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	108	158	139	975	330	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1583	330	330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1583	330	330			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.2			
p0 queue free %	0	78	89			
cM capacity (veh/h)	90	716	1241			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	266	139	975	330
Volume Left	108	139	0	0
Volume Right	158	0	0	0
cSH	187	1241	1700	1700
Volume to Capacity	1.42	0.11	0.57	0.19
Queue Length 95th (ft)	402	9	0	0
Control Delay (s)	265.8	8.3	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	265.8	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	42.0		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	189	115	0	0	69
Future Volume (Veh/h)	0	189	115	0	0	69
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.71	0.83	0.83	0.87	0.87
Hourly flow rate (vph)	0	266	139	0	0	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	139				405	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	139				405	139
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	91
cM capacity (veh/h)	1457				606	909

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	266	139	79
Volume Left	0	0	0
Volume Right	0	0	79
cSH	1700	1700	909
Volume to Capacity	0.16	0.08	0.09
Queue Length 95th (ft)	0	0	7
Control Delay (s)	0.0	0.0	9.3
Lane LOS			A
Approach Delay (s)	0.0	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	17.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	112	115	809	274	0
Future Volume (Veh/h)	77	112	115	809	274	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	108	158	139	975	330	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1583	330	330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1583	330	330			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.2			
p0 queue free %	0	78	89			
cM capacity (veh/h)	90	716	1241			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	266	139	975	330
Volume Left	108	139	0	0
Volume Right	158	0	0	0
cSH	195	1241	1700	1700
Volume to Capacity	1.36	0.11	0.57	0.19
Queue Length 95th (ft)	383	9	0	0
Control Delay (s)	238.3	8.3	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	238.3	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	37.7		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	112	115	809	274	0
Future Volume (Veh/h)	77	112	115	809	274	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	108	158	139	975	330	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1583	330	330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1583	330	330			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.2			
p0 queue free %	0	78	89			
cM capacity (veh/h)	90	716	1241			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	266	139	975	330
Volume Left	108	139	0	0
Volume Right	158	0	0	0
cSH	195	1241	1700	1700
Volume to Capacity	1.36	0.11	0.57	0.19
Queue Length 95th (ft)	383	9	0	0
Control Delay (s)	238.3	8.3	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	238.3	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	37.7		
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	0	1	808	274	68
Future Volume (Veh/h)	77	0	1	808	274	68
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.83	0.83	0.87	0.87
Hourly flow rate (vph)	94	0	1	973	315	78
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1329	354	393			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1329	354	393			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	45	100	100			
cM capacity (veh/h)	172	694	1177			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	94	974	393
Volume Left	94	1	0
Volume Right	0	0	78
cSH	172	1177	1700
Volume to Capacity	0.55	0.00	0.23
Queue Length 95th (ft)	70	0	0
Control Delay (s)	48.4	0.0	0.0
Lane LOS	E	A	
Approach Delay (s)	48.4	0.0	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	112	115	809	274	0
Future Volume (Veh/h)	0	112	115	809	274	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	0	158	139	975	330	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1583	330	330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1583	330	330			
tC, single (s)	6.7	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.8	3.3	2.2			
p0 queue free %	100	78	89			
cM capacity (veh/h)	90	716	1241			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	158	139	975	330
Volume Left	0	139	0	0
Volume Right	158	0	0	0
cSH	716	1241	1700	1700
Volume to Capacity	0.22	0.11	0.57	0.19
Queue Length 95th (ft)	21	9	0	0
Control Delay (s)	11.4	8.3	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	11.4	1.0		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	112	115	0	0	69
Future Volume (Veh/h)	77	112	115	0	0	69
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.82	0.71	0.83	0.83	0.87	0.87
Hourly flow rate (vph)	94	158	139	0	0	79
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	139				485	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	139				485	139
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				100	91
cM capacity (veh/h)	1457				510	909

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	252	139	79
Volume Left	94	0	0
Volume Right	0	0	79
cSH	1457	1700	909
Volume to Capacity	0.06	0.08	0.09
Queue Length 95th (ft)	5	0	7
Control Delay (s)	3.2	0.0	9.3
Lane LOS	A		A
Approach Delay (s)	3.2	0.0	9.3
Approach LOS			A

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	63.7
Intersection LOS	F

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	266	1113	412
Demand Flow Rate, veh/h	302	1123	419
Vehicles Circulating, veh/h	337	144	140
Vehicles Exiting, veh/h	222	495	1127
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.9	96.9	8.6
Approach LOS	A	F	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	302	1123	419
Cap Entry Lane, veh/h	807	978	982
Entry HV Adj Factor	0.881	0.991	0.984
Flow Entry, veh/h	266	1113	412
Cap Entry, veh/h	711	970	967
V/C Ratio	0.374	1.148	0.427
Control Delay, s/veh	9.9	96.9	8.6
LOS	A	F	A
95th %tile Queue, veh	2	31	2

Intersection	
Intersection Delay, s/veh	3.8
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	266	1113	412
Demand Flow Rate, veh/h	302	1123	419
Vehicles Circulating, veh/h	337	144	140
Vehicles Exiting, veh/h	222	495	144
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.9	0.6	8.6
Approach LOS	A	A	A

Lane	Left	Left	Bypass	Left
Designated Moves	LR	L	R	TR
Assumed Moves	LR	L	R	TR
RT Channelized			Free	
Lane Util	1.000	1.000		1.000
Critical Headway, s	5.193	5.193		5.193
Entry Flow, veh/h	302	140	983	419
Cap Entry Lane, veh/h	807	978	1919	982
Entry HV Adj Factor	0.881	1.000	0.990	0.984
Flow Entry, veh/h	266	140	973	412
Cap Entry, veh/h	711	978	1900	967
V/C Ratio	0.374	0.143	0.512	0.427
Control Delay, s/veh	9.9	5.0	0.0	8.6
LOS	A	A	A	A
95th %tile Queue, veh	2	0	3	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	0	513	311	59
Future Volume (Veh/h)	0	0	0	513	311	59
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.65	0.65	0.86	0.86	0.88	0.88
Hourly flow rate (vph)	0	0	0	597	353	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	984	386	420			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	984	386	420			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	278	666	1150			

Direction, Lane #	NB 1	SB 1
Volume Total	597	420
Volume Left	0	0
Volume Right	0	67
cSH	1700	1700
Volume to Capacity	0.35	0.25
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	30.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	487	58	408	310	0
Future Volume (Veh/h)	114	487	58	408	310	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.86	0.86	0.88	0.88
Hourly flow rate (vph)	161	686	67	474	352	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	960	352	352			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	960	352	352			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	41	1	94			
cM capacity (veh/h)	271	696	1218			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	847	67	474	352
Volume Left	161	67	0	0
Volume Right	686	0	0	0
cSH	536	1218	1700	1700
Volume to Capacity	1.58	0.06	0.28	0.21
Queue Length 95th (ft)	1144	4	0	0
Control Delay (s)	289.4	8.1	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	289.4	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	141.2		
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	601	58	0	0	59
Future Volume (Veh/h)	0	601	58	0	0	59
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.65	0.71	0.86	0.85	0.81	0.88
Hourly flow rate (vph)	0	846	67	0	0	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	67				913	67
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				913	67
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	93
cM capacity (veh/h)	1547				306	997

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	846	67	67
Volume Left	0	0	0
Volume Right	0	0	67
cSH	1700	1700	997
Volume to Capacity	0.50	0.04	0.07
Queue Length 95th (ft)	0	0	5
Control Delay (s)	0.0	0.0	8.9
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	35.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	487	58	408	310	0
Future Volume (Veh/h)	114	487	58	408	310	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.86	0.86	0.88	0.88
Hourly flow rate (vph)	161	686	67	474	352	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	960	352	352			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	960	352	352			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	41	1	94			
cM capacity (veh/h)	271	696	1218			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	847	67	474	352
Volume Left	161	67	0	0
Volume Right	686	0	0	0
cSH	752	1218	1700	1700
Volume to Capacity	1.13	0.06	0.28	0.21
Queue Length 95th (ft)	618	4	0	0
Control Delay (s)	95.2	8.1	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	95.2	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	46.6		
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	0	0	399	311	59
Future Volume (Veh/h)	114	0	0	399	311	59
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.65	0.65	0.86	0.86	0.88	0.88
Hourly flow rate (vph)	175	0	0	464	353	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	850	386	420			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	850	386	420			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	47	100	100			
cM capacity (veh/h)	333	666	1150			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	175	464	420
Volume Left	175	0	0
Volume Right	0	0	67
cSH	333	1700	1700
Volume to Capacity	0.53	0.27	0.25
Queue Length 95th (ft)	72	0	0
Control Delay (s)	27.1	0.0	0.0
Lane LOS	D		
Approach Delay (s)	27.1	0.0	0.0
Approach LOS	D		

Intersection Summary			
Average Delay	4.5		
Intersection Capacity Utilization	34.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	487	58	408	310	0
Future Volume (Veh/h)	0	487	58	408	310	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.71	0.71	0.86	0.86	0.88	0.88
Hourly flow rate (vph)	0	686	67	474	352	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	960	352	352			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	960	352	352			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	1	94			
cM capacity (veh/h)	271	696	1218			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	686	67	474	352
Volume Left	0	67	0	0
Volume Right	686	0	0	0
cSH	696	1218	1700	1700
Volume to Capacity	0.99	0.06	0.28	0.21
Queue Length 95th (ft)	385	4	0	0
Control Delay (s)	54.9	8.1	0.0	0.0
Lane LOS	F	A		
Approach Delay (s)	54.9	1.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	24.2		
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	114	487	58	0	0	59
Future Volume (Veh/h)	114	487	58	0	0	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.65	0.71	0.86	0.85	0.81	0.88
Hourly flow rate (vph)	175	686	67	0	0	67
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	67				1103	67
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	67				1103	67
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	89				100	93
cM capacity (veh/h)	1547				209	997

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	861	67	67
Volume Left	175	0	0
Volume Right	0	0	67
cSH	1547	1700	997
Volume to Capacity	0.11	0.04	0.07
Queue Length 95th (ft)	10	0	5
Control Delay (s)	2.7	0.0	8.9
Lane LOS	A		A
Approach Delay (s)	2.7	0.0	8.9
Approach LOS			A

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	40.4
Intersection LOS	E

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	847	541	420
Demand Flow Rate, veh/h	847	546	424
Vehicles Circulating, veh/h	357	161	67
Vehicles Exiting, veh/h	134	1043	640
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	75.1	11.4	7.7
Approach LOS	F	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	847	546	424
Cap Entry Lane, veh/h	791	962	1057
Entry HV Adj Factor	1.000	0.991	0.992
Flow Entry, veh/h	847	541	420
Cap Entry, veh/h	791	954	1048
V/C Ratio	1.071	0.568	0.401
Control Delay, s/veh	75.1	11.4	7.7
LOS	F	B	A
95th %tile Queue, veh	22	4	2

Intersection	
Intersection Delay, s/veh	37.1
Intersection LOS	E

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	847	541	420
Demand Flow Rate, veh/h	847	546	424
Vehicles Circulating, veh/h	357	161	67
Vehicles Exiting, veh/h	134	1043	161
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	75.1	0.5	7.7
Approach LOS	F	A	A

Lane	Left	Left	Bypass	Left
Designated Moves	LR	L	R	TR
Assumed Moves	LR	L	R	TR
RT Channelized			Free	
Lane Util	1.000	1.000		1.000
Critical Headway, s	5.193	5.193		5.193
Entry Flow, veh/h	847	67	479	424
Cap Entry Lane, veh/h	791	962	1919	1057
Entry HV Adj Factor	1.000	1.000	0.990	0.992
Flow Entry, veh/h	847	67	474	420
Cap Entry, veh/h	791	962	1900	1048
V/C Ratio	1.071	0.070	0.249	0.401
Control Delay, s/veh	75.1	4.4	0.0	7.7
LOS	F	A	A	A
95th %tile Queue, veh	22	0	1	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1	593	552	120
Future Volume (Veh/h)	0	0	1	593	552	120
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.96	0.96
Hourly flow rate (vph)	0	0	1	638	575	125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1278	638	700			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1278	638	700			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	100	100			
cM capacity (veh/h)	183	481	906			

Direction, Lane #	NB 1	SB 1
Volume Total	639	700
Volume Left	1	0
Volume Right	0	125
cSH	906	1700
Volume to Capacity	0.00	0.41
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS	A	
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary				
Average Delay	0.0			
Intersection Capacity Utilization	39.7%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	125	311	508	552	0
Future Volume (Veh/h)	81	125	311	508	552	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.93	0.93
Hourly flow rate (vph)	108	167	353	577	594	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1877	594	594			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1877	594	594			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	67	64			
cM capacity (veh/h)	51	507	992			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	275	353	577	594
Volume Left	108	353	0	0
Volume Right	167	0	0	0
cSH	113	992	1700	1700
Volume to Capacity	2.44	0.36	0.34	0.35
Queue Length 95th (ft)	612	41	0	0
Control Delay (s)	733.8	10.6	0.0	0.0
Lane LOS	F	B		
Approach Delay (s)	733.8	4.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	114.3		
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↱
Traffic Volume (veh/h)	0	206	311	0	0	121
Future Volume (Veh/h)	0	206	311	0	0	121
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.77	0.75	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	0	275	353	0	0	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	353				628	353
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	353				628	353
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	82
cM capacity (veh/h)	1206				450	693

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	275	353	126
Volume Left	0	0	0
Volume Right	0	0	126
cSH	1700	1700	693
Volume to Capacity	0.16	0.21	0.18
Queue Length 95th (ft)	0	0	17
Control Delay (s)	0.0	0.0	11.3
Lane LOS			B
Approach Delay (s)	0.0	0.0	11.3
Approach LOS			B

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	125	311	508	552	0
Future Volume (Veh/h)	81	125	311	508	552	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.93	0.93
Hourly flow rate (vph)	108	167	353	577	594	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		2				
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1877	594	594			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1877	594	594			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	67	64			
cM capacity (veh/h)	51	507	992			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	275	353	577	594
Volume Left	108	353	0	0
Volume Right	167	0	0	0
cSH	115	992	1700	1700
Volume to Capacity	2.40	0.36	0.34	0.35
Queue Length 95th (ft)	608	41	0	0
Control Delay (s)	717.0	10.6	0.0	0.0
Lane LOS	F	B		
Approach Delay (s)	717.0	4.0		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	111.7		
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	0	1	512	552	120
Future Volume (Veh/h)	81	0	1	512	552	120
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.77	0.77	0.93	0.93	0.96	0.96
Hourly flow rate (vph)	105	0	1	551	575	125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1190	638	700			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1190	638	700			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	49	100	100			
cM capacity (veh/h)	207	481	906			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	105	552	700
Volume Left	105	1	0
Volume Right	0	0	125
cSH	207	906	1700
Volume to Capacity	0.51	0.00	0.41
Queue Length 95th (ft)	64	0	0
Control Delay (s)	39.1	0.0	0.0
Lane LOS	E	A	
Approach Delay (s)	39.1	0.0	0.0
Approach LOS	E		

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	125	311	508	552	0
Future Volume (Veh/h)	0	125	311	508	552	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.88	0.88	0.93	0.93
Hourly flow rate (vph)	0	167	353	577	594	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1877	594	594			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1877	594	594			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	67	64			
cM capacity (veh/h)	51	507	992			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	167	353	577	594
Volume Left	0	353	0	0
Volume Right	167	0	0	0
cSH	507	992	1700	1700
Volume to Capacity	0.33	0.36	0.34	0.35
Queue Length 95th (ft)	36	41	0	0
Control Delay (s)	15.6	10.6	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	15.6	4.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	81	125	311	0	0	121
Future Volume (Veh/h)	81	125	311	0	0	121
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.77	0.75	0.88	0.88	0.96	0.96
Hourly flow rate (vph)	105	167	353	0	0	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	353				730	353
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	353				730	353
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	91				100	82
cM capacity (veh/h)	1206				358	693

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	272	353	126
Volume Left	105	0	0
Volume Right	0	0	126
cSH	1206	1700	693
Volume to Capacity	0.09	0.21	0.18
Queue Length 95th (ft)	7	0	17
Control Delay (s)	3.7	0.0	11.3
Lane LOS	A		B
Approach Delay (s)	3.7	0.0	11.3
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	34.1%	ICU Level of Service	A
Analysis Period (min)	15		

Historical Crash Data Analysis 2011-2013

MassDOT Crash Report for GROTON for the year 2011

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection
2751326	GROTON	22-Jul-2011	4:38 PM	Non-fatal injury	2	1	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Eastbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Dry	Daylight	Clear	MAIN STREET Rte 119 E / OLD AYER ROAD	
2705138	GROTON	10-Feb-2011	11:10 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Dry	Daylight	Clear/Cloudy	OLD AYER ROAD / MAIN STREET	
2710522	GROTON	25-Feb-2011	7:54 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with motor vehicle in traffic	V1: Passenger car	Snow	Daylight	Snow		262 OLD AYER ROAD
2711016	GROTON	02-Mar-2011	7:48 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Eastbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Dark - lighted roadway	Clear/Clear	BOSTON ROAD / OLD AYER ROAD	
2716874	GROTON	13-Apr-2011	3:01 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Slowing or stopped in traffic	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Not reported / V2:Not reported	Wet	Daylight	Rain/Rain		201 MAIN STREET / COURT STREET
2728947	GROTON	19-May-2011	7:12 AM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Eastbound / V2:Not reported	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Not reported	Wet	Daylight	Clear/Clear		MAIN STREET Rte 119 E / OLD AYER ROAD
2736550	GROTON	03-Jun-2011	1:30 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Clear/Cloudy	MAIN STREET Rte 119 N / LOWELL ROAD Rte 40 W	
2754459	GROTON	05-Aug-2011	7:21 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Not reported / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	MAIN STREET / LOWELL ROAD	
2815130	GROTON	28-Oct-2011	8:47 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Dark - roadway not lighted	Clear/Clear		430 OLD AYER ROAD
2815131	GROTON	28-Oct-2011	8:47 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Dark - roadway not lighted	Clear/Clear		430 OLD AYER ROAD
2820159	GROTON	15-Nov-2011	5:03 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with animal - other	V1: Not reported	Dry	Dark - unknown roadway lighting	Cloudy/Cloudy		430 OLD AYER ROAD
2829330	GROTON	25-Oct-2011	4:58 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		100 feet W from Intersection MAIN STREET Rte 119 / LOWELL ROAD Rte 40 W
2878833	GROTON	21-Dec-2011	12:36 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Westbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Light truck(van, mini-van, panel,	Wet	Daylight	Cloudy/Rain	BOSTON ROAD Rte 119 W / LOVERS LANE	
2913477	GROTON	28-Dec-2011	9:40 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning left	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Clear	MAIN STREET Rte 119 / BROADMEADOW ROAD / LOWELL ROAD Rte 40 N	
2955536	GROTON	10-Dec-2011	4:46 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with animal - deer	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Dark - roadway not lighted	Clear		284 OLD AYER ROAD

massDOT

MassDOT Crash Report for GROTON for the year 2012

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection
3010591	GROTON	02-Feb-2012	3:46 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Turning right	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Cloudy/Cloudy	FARMERS ROW Rte 225 / HIGLEY STREET / PEABODY STREET	
3354047	GROTON	01-Dec-2012	11:26 AM	Non-fatal injury	2	2	0	Sideswipe, same direction	V1: Changing lanes / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Ice	Dark - lighted roadway	Cloudy/Snow	Rte 119 / MAIN STREET / HOLLIS STREET	
2974416	GROTON	11-Jan-2012	6:02 AM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Eastbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Cloudy	Rte 119 / MAIN STREET / OLD AYER ROAD	
2956435	GROTON	04-Jan-2012	3:27 PM	Non-fatal injury	2	1	0	Angle	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Southbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Clear		322 OLD AYER ROAD
3034872	GROTON	06-Feb-2012	4:51 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Eastbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Dark - lighted roadway	Clear		200 OLD AYER ROAD
3211830	GROTON	12-May-2012	8:18 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Southbound	V1: Collision with animal - other	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Dry	Daylight	Cloudy/Clear		133 OLD AYER ROAD
3229826	GROTON	20-Jul-2012	8:41 AM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with animal - deer	V1: Passenger car	Dry	Daylight	Clear		320 OLD AYER ROAD
3343733	GROTON	16-Nov-2012	1:56 PM	Non-fatal injury	1	1	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Other non-collision	V1: Passenger car	Wet	Dark - roadway not lighted	Rain		400 OLD AYER ROAD
3354044	GROTON	07-Dec-2012	9:02 PM	Property damage only (none injured)	2	0	0	Angle	V1: Overtaking/passing / V2:Turning left	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Other	MAIN STREET Rte 119 / LOWELL ROAD Rte 40	
3210031	GROTON	11-May-2012	4:54 PM														

MassDOT Crash Report for GROTON for the year 2013

Crash Number	City/Town Name	Crash Date	Crash Time	Crash Severity	Number of Vehicles	Total Nonfatal Injuries	Total Fatal Injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Most Harmful Events	Vehicle Configuration	Road Surface Condition	Ambient Light	Weather Condition	At Roadway Intersection	Distance from Nearest Roadway Intersection
3587401	GROTON	13-Aug-2013	11:31 AM	Non-fatal injury	3	1	0	Angle	V1: Entering traffic lane /	V1:Eastbound /	V1: Collision with motor	V1: Passenger car /	Wet	Daylight	Rain/Cloudy	BOSTON ROAD / LOVERS	
3368271	GROTON	08-Jan-2013	7:13 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Wet	Daylight	Rain/Cloudy	HIGLEY STREET / FARMERS ROW	
3371610	GROTON	04-Feb-2013	3:27 PM	Property damage only (none injured)	2	0	0	Angle	V1: Turning left / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Unknown	MAIN STREET Rte 119 W / HOLLIS STREET	
3656338	GROTON	04-Nov-2013	3:33 PM	Property damage only (none injured)	2	0	0	Angle	V1: Entering traffic lane / V2:Travelling straight ahead	V1:Southbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear	MAIN STREET Rte 119 W / HOLLIS STREET	
3603846	GROTON	27-Sep-2013	1:48 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear/Other	OLD AYER ROAD / MAIN STREET Rte 119 W	
3396591	GROTON	27-Mar-2013	2:26 PM	Non-fatal injury	2	1	0	Angle	V1: Making U-turn / V2:Travelling straight ahead	V1:Westbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear		120 OLD AYER ROAD
3596332	GROTON	02-Sep-2013	9:41 AM	Non-fatal injury	2	1	0	Head-on	V1: Turning left / V2:Travelling straight ahead	V1:Westbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Motorcycle	Wet	Daylight	Cloudy		MAIN STREET / OLD AYER ROAD Rte 119 W
3492506	GROTON	15-Jun-2013	1:31 AM	Not Reported	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Northbound	V1: Collision with utility pole	V1: Passenger car	Dry	Dark - roadway not lighted	Clear		417 OLD AYER ROAD
3369524	GROTON	21-Jan-2013	7:04 PM	Property damage only (none injured)	1	0	0	Single vehicle crash	V1: Travelling straight ahead	V1:Eastbound	V1: Collision with guardrail	V1: Passenger car	Snow	Dark - lighted roadway	Snow		380 OLD AYER ROAD
3396586	GROTON	30-Mar-2013	2:30 PM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Westbound / V2:Westbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Light truck(van, mini-van, panel, pickup, sport utility) with only four tires / V2:Passenger car	Dry	Daylight	Clear		200 feet S from Intersection BOSTON ROAD Rte 225 E / OLD AYER ROAD
3422281	GROTON	06-May-2013	5:08 PM	Property damage only (none injured)	2	0	0	Sideswipe, opposite direction	V1: Travelling straight ahead / V2:Travelling straight ahead	V1:Northbound / V2:Southbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear		433 OLD AYER ROAD
3451184	GROTON	24-May-2013	8:34 AM	Property damage only (none injured)	2	0	0	Rear-end	V1: Slowing or stopped in traffic / V2:Travelling straight ahead	V1:Northbound / V2:Northbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Light truck(van, mini-van, panel, pickup, sport utility) with only four tires	Wet	Daylight	Cloudy/Rain		310 OLD AYER ROAD
3719779	GROTON	27-Dec-2013	1:34 PM	Property damage only (none injured)	2	0	0	Angle	V1: Travelling straight ahead / V2:Entering traffic lane	V1:Eastbound / V2:Eastbound	V1: Collision with motor vehicle in traffic / V2: Collision with motor vehicle in traffic	V1: Passenger car / V2:Passenger car	Dry	Daylight	Clear/Cloudy		30 feet E from Intersection MAIN STREET Rte 119 E / HOLLIS STREET

Detailed Trip Generation Analysis Worksheets

	Littleton High School Driveway From North				King Street (Route 110/2A) From East				Driveway From South				King Street (Route 110/2A) From West				15 min	1 hour
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Sum All	Sum All
05:30 PM	2	0	0	0	4		0	0	0	0	0	0	0		4	0	10	
05:45 PM	2	0	0	0	10		0	0	1	0	0	0	0		6	0	18	
06:00 PM	0	0	0	0	38		1	0	0	0	0	0	0		11	0	49	
06:15 PM	1	0	0	0	57	75	1	0	0	0	0	0	0	79	15	0	73	150
06:30 PM	2	0	0	0	29	67	0	0	0	0	0	0	1	58	15	0	46	186
06:45 PM	0	0	1	0	37	59	0	0	0	0	0	0	0	69	16	0	54	222
07:00 PM	0	0	1	0	51	68	0	0	0	0	1	0	0	73	27	0	79	252
07:15 PM	0	0	3	0	17					0		0			17	0	37	216
Peak In Hour	3	0	2	0	174	269	1	0	0	0	1	0	1	279	73	0		253
6:15-7:15 PM																		
Two Hours	7	0	5	0	243										111			

	Littleton High School Driveway From North				King Street (Route 110/2A) From East				Driveway From South				King Street (Route 110/2A) From West				15 min	1 hour			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Sum All	Sum All	IN	OUT	
09:00 PM	2	0	9	0	1	51	0	0	0	0	0	0	0	36	0	0	12		1	11	
09:15 PM	3	0	1	0	2	52	0	0	0	0	0	0	0	38	0	0	6		2	4	
09:30 PM	2	0	4	0	1	36	0	0	0	0	0	0	0	17	0	0	7		1	6	
09:45 PM	82	0	170	0	0	41	0	0	0	0	0	0	0	19	0	0	252	277	0	252	277
10:00 PM	5	0	15	0	0	41	0	0	0	0	0	0	0	29	0	1	20	285	0	20	285
10:15 PM	12	0	35	0	0	27	0	0	0	0	0	0	0	23	0	0	47	326	0	47	326
10:30 PM	0	0	3	0	0	34	0	0	0	0	0	0	0	18	0	0	3	322	0	3	322
10:45 PM	2	0	0	0	1	23	0	0	0	0	0	0	0	16	0	0	3	73	1	2	73
sum 2 hours	108	0	237																		
Peak hour	101	0	224																		

2 hour Total 345

Peak hour Total 325

2.32 Persons per vehicle occupancy based on IHMS count of persons at the concert -802 total including staff and performers including 721 patrons

For a 300 person typical small concert assume 300+40 performers plus staff persons

300 **Say 150 total cars each way total, with 105 arriving/10 departing during the entering peak hour In and 140 departing/5 entering during the peak hour.**

For a 1000 person typical winter/offpeak concert assume 1000+130 performers plus staff persons

980 **Say 490 total cars each way total, with 345 arriving/10 departing during the entering peak hour In and 460 departing/5 entering during the peak hour**

70% during entering peak

For a 2300 person concert including outdoor grass assume 2300+300 performers & staff or2,600 persons

1750 **Say 875 total vehicles (site capacity) with 615 arriving/30 departing during the arrival peak and 825 departing/20 arriving during the departure peak at 9:30-10:30 PM (applies to Fridays only)**

94% during exiting peak

For a 2,300 person festival, assume 2,300 persons and 300 performers & staff

2600 **Say 1,300 total daily cars with round trips (not all at once, some departing earlier) assumes 28% factor for midday peak hour arrrivals (arrivals spread out throughout the day) and 94% of site parking capacity departures factor for evening peak hour or 365 entering/65 leaving cars from 11-12 Noon and 675 cars leaving/35 entering from 10-11 PM.**

	2016 CONCERT (721 patrons)			2024 LARGE CONCERT (2300)			
	IN	OUT	TOTAL	IN	OUT	TOTAL	
2 HOURS	354	12	366	881	30	911	
PEAK	247	5	252	615	33	648	ARRIVING PEAK HOUR
PEAK HOUR/TWO-HOUR RATIO	0.70	0.42	0.69	0.70	1.09	0.71	
				20	825	845	DEPARTING PEAK HOUR

Parking constrained estimates.

	2016 CONCERT (721 patrons)			2024 TYP CONCERT (1000)			
	IN	OUT	TOTAL	IN	OUT	TOTAL	
2 HOURS	354	12	366	491	17	508	
PEAK	247	5	252	345	10	355	ARRIVING PEAK HOUR
PEAK HOUR/TWO-HOUR RATIO	0.70	0.42	0.69	0.70	0.58	0.70	
				5	460	465	DEPARTING PEAK HOUR

Note: Assumes 830 vehicles (site max including approximately 130 overflow spaces). Remaining patrons would need to walk or bike or use arrange for off-site shuttles. available overflow parking sources. For example, from Shaw's, GDR High School, Station Avenue parking. Consider large concert ticket pricing that favors 3+seat groupings. Generally encourage shared rides to increase auto occupancy for largest high demand events. Coordinate and encourage shuttles from regional senior center locations. Consider allowing some shuttles to store on site during large events.

	Indian Hill Music School Driveway From North				King Street (Route 110/2A) From East				Kimball Street From South				King Street (Route 110/2A) From West			
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn
04:45 PM	6	0	13	0	26	150	13	0	3	1	1	0	0	121	11	0
05:00 PM	4	1	8	0	2	146	5	0	6	0	0	0	0	162	3	0
05:15 PM	4	0	0	0	11	166	11	0	7	0	0	0	1	111	3	0
05:30 PM	5	1	6	0	6	175	12	0	12	0	0	0	0	122	4	0
05:45 PM	2	0	0	0	9	166	2	0	6	0	0	0	0	104	3	0
06:00 PM	12	1	13	0	10	139	5	0	6	0	0	0	0	93	2	0
06:15 PM	7	0	29	0	22	124	0	0	10	1	0	0	0	103	3	0
06:30 PM	5	0	8	0	7	107	10	0	5	0	0	0	2	64	3	0
06:45 PM	2	0	7	0	6	88	9	0	6	0	0	0	0	71	1	0
07:00 PM	0	1	5	0	3	73	4	0	9	0	0	0	0	63	1	0
07:15 PM	1	0	4	0	3	77	7	0	5	0	1	0	0	33	2	0
07:30 PM	1	0	3	0	1	56	0	0	4	0	0	0	1	44	3	0
07:45 PM	2	0	2	0	3	63	3	0	4	0	0	0	0	30	3	0
08:00 PM	1	0	2	0	0	53	10	0	1	0	0	0	0	23	2	0
08:15 PM	0	0	5	0	6	45	2	0	1	1	0	0	0	30	5	0
08:30 PM	12	1	18	0	6	72	5	0	1	0	0	0	0	36	1	0
4:45-5:45 PM	**19**	**2**	**27**		**45**										**21**	
6:00-7:00 PM	**26**	**1**	**57**		**45**										**9**	

Monday with 50% increase in School activities

total in	total out	2024 Projection
99	**72**	**171**
81	**126**	**207**

Monday Peak Day School activities

	Total	**IN**	**OUT**
	114	**66**	**48**
	138	**54**	**84**

Day of Week by Projected Type of Groton MCIH Activities – Year 2024

	None	Regular School	Peak School	Summer Music Festival 2,300 Patrons	Very Large Concert 2,300 Patrons	Large 1,000 Patrons	Medium 300 Patrons	Total Annual Low Side Daily Trips	Total Annual High Side Daily Trips	Average Low Side Daily Trips	Average High Side Daily Trips
Sunday		52		1	1 to 2	16 to 33	15 to 20	50790	71360	977	1372
Monday*		20	32					39900	40500	767	779
Tuesday		52					3 to 5	27420	28020	527	539
Wednesday		52					3 to 5	27420	28020	527	539
Thursday		52					3 to 5	27420	28020	527	539
Friday		52			2 to 3	17 to 33	15 to 20	51260	70230	986	1351
Saturday		52		2 to 3	2 to 4	17 to 34	15 to 20	55860	78120	1074	1502
Total Trips								280070	344270		

* Source of preliminary estimates: IHMS. Present Monday Youth Orchestra rehearsal day is subject to change to another weekday in the future.

Range of Trip Generation by Day of Week and Projected Type of Groton MCIH Activities – Year 2024

Day of Week	Total Annual Low Side Trips	Total Annual High Side Trips	Annual Average Low Side Daily Trips	Annual Average High Side Daily Trips
Sunday	50790	71360	977	1372
Monday[1]	39900	40500	767	779
Tuesday	27420	28020	527	539
Wednesday	27420	28020	527	539
Thursday	27420	28020	527	539
Friday	51260	70230	986	1351
Saturday	55860	78120	1074	1502
Total Trips	**280070**	**344270**		

Low Estimate Average Annual Daily Trips	767	Round to 765
High Estimate Average Annual Daily Trips	943	Round to 945

1 Monday at this time is Youth Orchestra Rehearsal/Performance day; this could change to another day.

Groton MCIH Peak Hour In/Out Trip Generation By Situation

Option	Total Inbound Peak Hour Trips	Entering Peak Hour Trips	Exiting Peak Hour Trips	Total Outbound Peak Hour Trips	Entering Peak Hour Trips	Exiting Peak Hour Trips
Typical school day operations - In/Out Peak Hours	100	50	50	100	45	55
300-patron medium concert In/Out Peak Hours	110	105	5	145	5	140
Typical Peak School Day Operations - In/Out Peak Hours	175	100	75	210	85	125
Typical Incorporating Performance - 1,000 patron Concert In/Out Peak Hours	355	345	10	465	5	460
Festival In/Out Peak Hours	430	365	65	845	20	675
Typical Incorporating Performance - 2,300 patron Concert In/Out Peak Hours	645	615	30	845	20	825

Groton MCIH Peak Hour Generation By Situation

Option	Total Inbound Peak Hour Trips	Total Outbound Peak Hour Trips
Typical School Day Operations without Youth Orchestra Rehearsal	110	145
Typical Incorporating Performance 300-patron Recital Hall Concert	100	135
Typical Peak School Day Operations with Youth Orchestra Rehearsal	175	210
Typical Incorporating Performance occasional 1,000 Patron Concert	355	465
Festival Saturday or Sunday 2,300 Patron Mid-day	430	845
Extra large 2,300 Patron Concert - Friday Evening	645	845

Groton MCIH Peak Hour Trip Generation By *Analyzed* Situation

Option	Total Inbound Peak Hour Trips	Total Outbound Peak Hour Trips
"*Typical" Peak School Day* with Youth Orchestra Rehearsal	175	210
Occasional *"Large"* 1,000-patron Friday Performance	355	465
Rare *Saturday "Festival"* with 2,300-Patrons	430	845
Rare 2,300-patron *"Large" Friday Performance*	645	845

Old Ayer Road at Boston/Main Streets

Typical Peak School Day	No Build	Build Reg	% MCIH	Net MCIH Volumes	% Regular/Peak School Day	%MCIH Regular School
early peak hour	1763	1885	6%	**122**	57%	**4%**
late peak hour	1268	1455	13%	**187**	48%	**6%**
Occasional *Large* Friday	**No Build**	**1000-patrons**	**% MCIH**	**Net MCIH Volumes**	**Volumes With Regular Day**	**%MCIH W/ Regular School**
early peak hour	1244	1511	18%	**267**	367	**23%**
late peak hour	297	646	54%	**349**	449	**60%**
Rare *Large* Friday	**No Build**	**2300 patrons**	**% MCIH**	**Net MCIH Volumes**	**Volumes With Regular Day**	**%MCIH W/ Regular School**
early peak hour	1244	1729	28%	**485**	585	**32%**
late peak hour	297	931	68%	**634**	734	**71%**
Rare *Festival S*aturday	**No Build**	**2300 patrons**	**% MCIH**	**Net MCIH Volumes**	**Volumes With Regular Day**	**%MCIH W/ Regular School**
mid-day peak hour	1374	1697	19%	**323**	423	**24%**

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					% Addons to Total
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
4:45-5:45 PM	0	354	0	1056	92	0	81	2	0	TOTAL	NO-BUILD	
4:45-5:45 PM					60		45				ADD-ONS MONDAY SCHOOL PEAK	105
4:45-5:45 PM	**0**	**354**	**0**	**1056**	**152**	**0**	**126**	**2**	**0**		**BUILD ENTERING PEAK HOUR**	1690
	PHF	**0.84**		**PHF**	**0.95**		**PHF**	**0.94**		**PHF'S**		6.2%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:00-7:00 PM	0	286	0	809	64	0	37	2	0	TOTAL	NO-BUILD
6:00-7:00 PM					51		75	9			ADD-ONS MONDAY SCHOOL PEAK 135
6:00-7:00 PM	**0**	**286**	**0**	**809**	**115**	**0**	**112**	**11**	**0**		**BUILD EXITING PEAK HOUR** 1334
	PHF	**0.83**		**PHF**	**0.83**		**PHF**	**0.71**		**PHF'S**	10.1%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:15-7:15 PM	0	258	0	751	64	0	38	1	0	TOTAL	NO-BUILD
6:15-7:15 PM					224		7				ADD-ONS FRIDAY SMALL CONCERT (1,000 PATRONS) 231
6:15-7:15 PM	**0**	**258**	**0**	**751**	**288**	**0**	**45**	**1**	**0**		**BUILD ENTERING PEAK HOUR** 1344
	PHF	**0.88**		**PHF**	**0.94**		**PHF**	**0.80**		**PHF'S**	17.2%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
9:30-10:30 PM	0	73	0	175	15	0	9	0	0	TOTAL	NO-BUILD
9:30-10:30 PM					3		299				ADD-ONS FRIDAY SMALL CONCERT (1,000 PATRONS) 302
9:30-10:30 PM	**0**	**73**	**0**	**175**	**18**	**0**	**308**	**0**	**0**		**BUILD EXITING PEAK HOUR** 574
	PHF	**0.82**		**PHF**	**0.76**		**PHF**	**0.88**		**PHF'S**	52.6%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:15-7:15 PM	0	258	0	751	64	0	38	1	0	TOTAL	NO-BUILD
6:15-7:15 PM					400		20				ADD-ONS FRIDAY LARGE CONCERT (2,500 PATRONS) 420
6:15-7:15 PM	**0**	**258**	**0**	**751**	**464**	**0**	**58**	**1**	**0**		**BUILD ENTERING PEAK HOUR** 1533
	PHF	**0.88**		**PHF**	**0.94**		**PHF**	**0.80**		**PHF'S**	27.4%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
9:30-10:30 PM	0	73	0	175	15	0	9	0	0	TOTAL	NO-BUILD
9:30-10:30 PM					13		536				ADD-ONS FRIDAY LARGE CONCERT (2,500 PATRONS) 549
9:30-10:30 PM	**0**	**73**	**0**	**175**	**28**	**0**	**545**	**0**	**0**		**BUILD EXITING PEAK HOUR** 821
	PHF	**0.82**		**PHF**	**0.76**		**PHF**	**0.88**		**PHF'S**	66.9%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
11:00-12:00 PM	0	552	0	508	74	0	83	5	0	TOTAL	NO-BUILD
11:00-12:00 PM					237		42				ADD-ONS SUMMER FESTIVAL 279
11:00-12:00 PM	**0**	**552**	**0**	**508**	**311**	**0**	**125**	**5**	**0**		**BUILD ENTERING PEAK HOUR** 1502
	PHF	**0.93**		**PHF**	**0.88**		**PHF**	**0.75**		**PHF'S**	18.6%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:00-7:00 PM	0	310	0	408	45	0	42	0	0	TOTAL	NO-BUILD
6:00-7:00 PM					13		445				ADD-ONS SUMMER FESTIVAL 458
6:00-7:00 PM	**0**	**310**	**0**	**408**	**58**	**0**	**487**	**0**	**0**		**BUILD EXITING PEAK HOUR** 1262
	PHF	**0.88**		**PHF**	**0.86**		**PHF**	**0.71**		**PHF'S**	36.3%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West					% of Addons to Total
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
4:45-5:45 PM	76	354	0	1061	2	0	0	101	0	TOTAL	NO-BUILD	
4:45-5:45 PM	10							8			ADD-ONS MONDAY SCHOOL PEA	18
4:45-5:45 PM	**86**	**354**	**0**	**1061**	**2**	**0**	**0**	**109**	**0**		**BUILD ENTERING PEAK HOUR**	1612
	PHF	**0.83**		**PHF**	**0.97**		**PHF**	**0.87**		**PHF'S**		1.1%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:00-7:00 PM	59	274	0	779	1	0	0	62	0	TOTAL	NO-BUILD	
6:00-7:00 PM	9							13			ADD-ONS MONDAY SCHOOL PEA	22
6:00-7:00 PM	**68**	**274**	**0**	**779**	**1**	**0**	**0**	**75**	**0**		**BUILD EXITING PEAK HOUR**	1197
	PHF	**0.87**		**PHF**	**0.83**		**PHF**	**0.82**		**PHF'S**		1.8%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:15-7:15 PM	64	259	0	749	1	0	0	67	0	TOTAL	NO-BUILD	
6:15-7:15 PM	35							1			ADD-ONS FRIDAY SMALL CONCE	36
6:15-7:15 PM	**99**	**259**	**0**	**749**	**1**	**0**	**0**	**68**	**0**		**BUILD ENTERING PEAK HOUR**	1175
	PHF	**0.88**		**PHF**	**0.95**		**PHF**	**0.80**		**PHF'S**		3.1%

	Boston Road (Route 119/225)			Boston Road (Route 119/225)			Old Ayer Road North					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
9:30-10:30 PM	12	69	0	178	0	0	0	17	0	TOTAL	NO-BUILD	
9:30-10:30 PM	1							46			ADD-ONS FRIDAY SMALL CONCE	47
9:30-10:30 PM	**13**	**69**	**0**	**178**	**0**	**0**	**0**	**63**	**0**		**BUILD EXITING PEAK HOUR**	323
	PHF	**0.87**		**PHF**	**0.78**		**PHF**	**0.50**		**PHF'S**		14.6%

	Boston Road (Route 119/225)			Boston Road (Route 119/225)			Old Ayer Road North					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:15-7:15 PM	64	259	0	749	1	0	0	67	0	TOTAL	NO-BUILD	
6:15-7:15 PM	62							3			ADD-ONS FRIDAY LARGE CONCI	65
6:15-7:15 PM	**126**	**259**	**0**	**749**	**1**	**0**	**0**	**70**	**0**		**BUILD ENTERING PEAK HOUR**	1204
	PHF	**0.88**		**PHF**	**0.95**		**PHF**	**0.80**		**PHF'S**		5.4%

	Boston Road (Route 119/225)			Boston Road (Route 119/225)			Old Ayer Road North					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
9:30-10:30 PM	12	69	0	178	0	0	0	17	0	TOTAL	NO-BUILD	
9:30-10:30 PM	2							83			ADD-ONS FRIDAY LARGE CONCI	85
9:30-10:30 PM	**14**	**69**	**0**	**178**	**0**	**0**	**0**	**100**	**0**		**BUILD EXITING PEAK HOUR**	361
	PHF	**0.87**		**PHF**	**0.78**		**PHF**	**0.50**		**PHF'S**		23.6%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		(Flipped volumes)	
11:00-12:00 PM	83	552	0	517	1	0	0	69	0	TOTAL	NO-BUILD	
11:00-12:00 PM	37							7			ADD-ONS SUMMER FESTIVAL	44
11:00-12:00 PM	**120**	**552**	**0**	**517**	**1**	**0**	**0**	**76**	**0**		**BUILD ENTERING PEAK HOUR**	1266
	PHF	**0.88**		**PHF**	**0.86**		**PHF**	**0.65**		**PHF'S**		3.5%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:00-7:00 PM	55	311	0	399	0	0	0	46	0	TOTAL	NO-BUILD	
6:00-7:00 PM	4							68			ADD-ONS SUMMER FESTIVAL	72
6:00-7:00 PM	**59**	**311**	**0**	**399**	**0**	**0**	**0**	**114**	**0**		**BUILD EXITING PEAK HOUR**	883
	PHF	**0.96**		**PHF**	**0.93**		**PHF**	**0.77**		**PHF'S**		8.2%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			% Addons to Total
4:45-5:45 PM	0	354	0	1056	92	0	81	2	0	TOTAL	NO-BUILD	
4:45-5:45 PM					60		45				ADD-ONS MONDAY S(	105
4:45-5:45 PM	**0**	**354**	**0**	**1056**	**152**	**0**	**126**	**2**	**0**		**BUILD ENTERING PE/**	1690
	PHF	**0.84**		**PHF**	**0.95**		**PHF**	**0.94**		**PHF'S**		6.2%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:00-7:00 PM	0	286	0	809	64	0	37	2	0	TOTAL	NO-BUILD	
6:00-7:00 PM					51		75				ADD-ONS MONDAY S(	126
6:00-7:00 PM	**0**	**286**	**0**	**809**	**115**	**0**	**112**	**2**	**0**		**BUILD EXITING PEAK**	1325
	PHF	**0.83**		**PHF**	**0.83**		**PHF**	**0.71**		**PHF'S**		9.5%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:15-7:15 PM	0	258	0	751	64	0	38	1	0	TOTAL	NO-BUILD	
6:15-7:15 PM					224		7				ADD-ONS FRIDAY SM.	231
6:15-7:15 PM	**0**	**258**	**0**	**751**	**288**	**0**	**45**	**1**	**0**		**BUILD ENTERING PE/**	1344
	PHF	**0.88**		**PHF**	**0.94**		**PHF**	**0.80**		**PHF'S**		17.2%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
9:30-10:30 PM	0	73	0	175	15	0	9	0	0	TOTAL	NO-BUILD	
9:30-10:30 PM					3		299				ADD-ONS FRIDAY SM.	302
9:30-10:30 PM	**0**	**73**	**0**	**175**	**18**	**0**	**308**	**0**	**0**		**BUILD EXITING PEAK**	574
	PHF	**0.82**		**PHF**	**0.76**		**PHF**	**0.88**		**PHF'S**		52.6%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:15-7:15 PM	0	258	0	751	64	0	38	1	0	TOTAL	NO-BUILD	
6:15-7:15 PM					400		20				ADD-ONS FRIDAY LAI	420
6:15-7:15 PM	**0**	**258**	**0**	**751**	**464**	**0**	**58**	**1**	**0**		**BUILD ENTERING PE/**	1533
	PHF	**0.88**		**PHF**	**0.94**		**PHF**	**0.80**		**PHF'S**		27.4%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
9:30-10:30 PM	0	73	0	175	15	0	9	0	0	TOTAL	NO-BUILD	
9:30-10:30 PM					13		536				ADD-ONS FRIDAY LAI	549
9:30-10:30 PM	**0**	**73**	**0**	**175**	**28**	**0**	**545**	**0**	**0**		**BUILD EXITING PEAK**	821
	PHF	**0.82**		**PHF**	**0.76**		**PHF**	**0.88**		**PHF'S**		66.9%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
11:00-12:00 PM	0	552	0	508	74	0	83	5	0	TOTAL	NO-BUILD	
11:00-12:00 PM					237		42				ADD-ONS SUMMER F	279
11:00-12:00 PM	**0**	**552**	**0**	**508**	**311**	**0**	**125**	**5**	**0**		**BUILD ENTERING PE/**	1502
	PHF	**0.93**		**PHF**	**0.88**		**PHF**	**0.75**		**PHF'S**		18.6%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road South From West					
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn			
6:00-7:00 PM	0	310	0	408	45	0	42	0	0	TOTAL	NO-BUILD	
6:00-7:00 PM					13		445				ADD-ONS SUMMER F	458
6:00-7:00 PM	**0**	**310**	**0**	**408**	**58**	**0**	**487**	**0**	**0**		**BUILD EXITING PEAK**	1262
	PHF	**0.88**		**PHF**	**0.86**		**PHF**	**0.71**		**PHF'S**		36.3%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Start Time	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		% of MCIH Addons
4:45-5:45 PM	3	450	0	22	0	23	0	60	0	0	2	0	0	0	0	5	251	1026	4	0	0	0	0	0	0	NO-BUILD	
4:45-5:45 PM		2						3									2	2								ADD-ONS MONDAY SCHOOL PEAK	9
4:45-5:45 PM	**3**	**452**	**0**	**22**	**0**	**23**	**0**	**63**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**5**	**253**	**1028**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1855
	PHF	**0.92**				**PHF**	**0.89**				**PHF**	**0.50**				**PHF**	**0.90**				**PHF**	**#DIV/0!**				PHF'S	0.5%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
6:00-7:00 PM	5	375	4	6	0	9	0	71	0	0	1	0	0	0	0	2	179	765	0	0	0	0	0	0	0	NO-BUILD	
6:00-7:00 PM		2						3									4	3								ADD-ONS MONDAY SCHOOL PEAK	12
6:00-7:00 PM	**5**	**377**	**4**	**6**	**0**	**9**	**0**	**74**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**183**	**768**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	1430
	PHF	**0.88**				**PHF**	**0.88**				**PHF**	**0.25**				**PHF**	**0.80**				**PHF**	**#DIV/0!**				PHF'S	0.8%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
6:15-7:15 PM	4	350	3	7	0	9	0	71	0	0	1	0	0	0	0	2	158	701	1	0	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM		10						7									0	0								ADD-ONS FRIDAY SMALL CONCERT (1,000 F	17
6:15-7:15 PM	**4**	**360**	**3**	**7**	**0**	**9**	**0**	**78**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**158**	**701**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1325
	PHF	**0.91**				**PHF**	**0.83**				PHF	#DIV/0!				PHF	0.89				PHF	#DIV/0!				PHF'S	1.3%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
9:30-10:30 PM	1	79	1	3	0	3	0	14	1	0	0	0	0	0	0	0	48	159	0	0	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM		0						0									9	14								ADD-ONS FRIDAY SMALL CONCERT (1,000 F	23
9:30-10:30 PM	**1**	**79**	**1**	**3**	**0**	**3**	**0**	**14**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**57**	**173**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	333
	PHF	**0.79**				**PHF**	**0.53**				PHF	#DIV/0!				PHF	0.76				PHF	#DIV/0!				PHF'S	6.9%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
6:15-7:15 PM	4	350	3	7	0	9	0	71	0	0	1	0	0	0	0	2	158	701	1	0	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM		18						12									1	1								ADD-ONS FRIDAY LARGE CONCERT (2,500	32
6:15-7:15 PM	**4**	**368**	**3**	**7**	**0**	**9**	**0**	**83**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**159**	**702**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1340
	PHF	**0.91**				**PHF**	**0.83**				PHF	#DIV/0!				PHF	0.89				PHF	#DIV/0!				PHF'S	2.4%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
9:30-10:30 PM	1	79	1	3	0	3	0	14	1	0	0	0	0	0	0	0	48	159	0	0	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM		1						1									17	25								ADD-ONS FRIDAY LARGE CONCERT (2,500	44
9:30-10:30 PM	**1**	**80**	**1**	**3**	**0**	**3**	**0**	**15**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**65**	**184**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	354
	PHF	**0.79**				**PHF**	**0.53**				PHF	#DIV/0!				PHF	0.76				PHF	#DIV/0!				PHF'S	12.4%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
11:00-12:00 PM	7	629	2	10	0	16	0	132	0	0	3	0	0	2	0	1	164	493	2	0	0	0	0	0	0	NO-BUILD	
11:00-12:00 PM		11						7									1	2								ADD-ONS SUMMER FESTIVAL	21
11:00-12:00 PM	**7**	**640**	**2**	**10**	**0**	**16**	**0**	**139**	**0**	**0**	**3**	**0**	**0**	**2**	**0**	**1**	**165**	**495**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1483
	PHF	**0.97**				**PHF**	**0.93**				**PHF**	**0.63**				**PHF**	**0.96**				**PHF**	**#DIV/0!**				PHF'S	1.4%

	Main Street (Route 119/225) From North					Hollis Street From East					Mayfield Road From Southeast					Main Street (Route 119/225) From South					Court Street From West						
Build 2024	Right	Thru	Bear Left	Left	U-Turn	Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Left	U-Turn	Right	Bear Right	Thru	Left	U-Turn		
6:00-7:00 PM	1	341	0	17	0	11	1	91	1	0	0	1	1	1	0	3	95	403	6	0	0	0	1	0	0	NO-BUILD	
6:00-7:00 PM		1						1									14	20								ADD-ONS SUMMER FESTIVAL	36
6:00-7:00 PM	**1**	**342**	**0**	**17**	**0**	**11**	**1**	**92**	**1**	**0**	**0**	**1**	**1**	**1**	**0**	**3**	**109**	**423**	**6**	**0**	**0**	**0**	**1**	**0**	**0**	**BUILD EXITING PEAK HOUR**	1011
	PHF	**0.94**				**PHF**	**0.76**				PHF	#DIV/0!				PHF	0.82				PHF	#DIV/0!				PHF'S	3.6%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		% Add-ons are to traffic
4:45-5:45 PM	31	383	143	0	192	26	18	0	46	1109	43	0	0	0	0	0	NO-BUILD	
4:45-5:45 PM		5					5		4	4							ADD-ONS MONDAY SCHOOL PEAK	18
4:45-5:45 PM	**31**	**388**	**143**	**0**	**192**	**26**	**23**	**0**	**50**	**1113**	**43**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	2009
	PHF	**0.87**			**PHF**	**0.78**			**PHF**	**0.93**			**PHF**	**#DIV/0!**			PHF'S	0.9%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
6:00-7:00 PM	33	325	109	0	138	21	21	0	33	791	64	0	0	0	0	0	NO-BUILD	
6:00-7:00 PM		4					4		6	6							ADD-ONS MONDAY SCHOOL PEAK	20
6:00-7:00 PM	**33**	**329**	**109**	**0**	**138**	**21**	**25**	**0**	**39**	**797**	**64**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	1556
	PHF	**0.90**			**PHF**	**0.83**			**PHF**	**0.83**			**PHF**	**#DIV/0!**			PHF'S	1.3%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
6:15-7:15 PM	31	314	96	0	131	19	16	0	30	721	66	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM		17					17		1	1							ADD-ONS FRIDAY SMALL CONCERT (1,000 F	36
6:15-7:15 PM	**31**	**331**	**96**	**0**	**131**	**19**	**33**	**0**	**31**	**722**	**66**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1460
	PHF	**0.87**			**PHF**	**0.75**			PHF	0.94			PHF	#DIV/0!			PHF'S	2.5%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
9:30-10:30 PM	4	70	22	1	37	12	11	0	9	169	14	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM		0					0		23	23							ADD-ONS FRIDAY SMALL CONCERT (1,000 F	46
9:30-10:30 PM	**4**	**70**	**22**	**1**	**37**	**12**	**11**	**0**	**32**	**192**	**14**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	395
	PHF	**0.88**			**PHF**	**0.79**			PHF	0.78			PHF	#DIV/0!			PHF'S	11.6%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
6:15-7:15 PM	31	314	96	0	131	19	16	0	30	721	66	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM		31					31		2	2							ADD-ONS FRIDAY LARGE CONCERT (2,300	66
6:15-7:15 PM	**31**	**345**	**96**	**0**	**131**	**19**	**47**	**0**	**32**	**723**	**66**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1490
	PHF	**0.87**			**PHF**	**0.75**			PHF	0.94			PHF	#DIV/0!			PHF'S	4.4%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
9:30-10:30 PM	4	70	22	1	37	12	11	0	9	169	14	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM		1					1		41	41							ADD-ONS FRIDAY LARGE CONCERT (2,300	84
9:30-10:30 PM	**4**	**71**	**22**	**1**	**37**	**12**	**12**	**0**	**50**	**210**	**14**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	433
	PHF	**0.88**			**PHF**	**0.79**			PHF	0.78			PHF	#DIV/0!				19.4%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
11:00-12:00 PM	42	565	188	0	175	23	43	0	59	506	21	0	0	0	0	0	NO-BUILD	
11:00-12:00 PM		27					27		2	2							ADD-ONS SUMMER FESTIVAL	58
11:00-12:00 PM	**42**	**592**	**188**	**0**	**175**	**23**	**70**	**0**	**61**	**508**	**21**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	1679
	PHF	**0.99**			**PHF**	**0.93**			**PHF**	**0.93**			**PHF**	**#DIV/0!**			PHF'S	3.5%

	Main Street (Route 119/225) From North				Lowell Road (Route 40) From East				Main Street (Route 119/225) From South				Broad Meadow Road From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn		
6:00-7:00 PM	9	332	110	0	110	19	24	0	40	390	20	0	0	0	0	0	NO-BUILD	
6:00-7:00 PM		2					2		34	34							ADD-ONS SUMMER FESTIVAL	72
6:00-7:00 PM	**9**	**334**	**110**	**0**	**110**	**19**	**26**	**0**	**74**	**424**	**20**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	1125
	PHF	**0.84**			**PHF**	**0.96**			PHF	0.71			PHF	#DIV/0!			PHF'S	6.4%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				% Add-ons to Traffic
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
4:45-5:45 PM	167	4	0	4	31	0	34	324	0	NO-BUILD	
4:45-5:45 PM					4		5			ADD-ONS MONDAY SCHOOL PEA	9
4:45-5:45 PM	**167**	**4**	**0**	**4**	**35**	**0**	**39**	**324**	**0**	**BUILD ENTERING PEAK HOUR**	575
	PHF	**0.91**		**PHF**	**0.65**		**PHF**	**0.86**		**PHF'S**	1.6%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:00-7:00 PM	104	2	0	3	8	0	18	166	0	NO-BUILD	
6:00-7:00 PM					6		4			ADD-ONS MONDAY SCHOOL PEA	10
6:00-7:00 PM	**104**	**2**	**0**	**3**	**14**	**0**	**22**	**166**	**0**	**BUILD EXITING PEAK HOUR**	311
	PHF	**0.83**		**PHF**	**0.69**		**PHF**	**0.83**		**PHF'S**	3.2%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:15-7:15 PM	94	1	0	1	14	0	15	174	0	NO-BUILD	
6:15-7:15 PM					1		17			ADD-ONS FRIDAY SMALL CONCE	18
6:15-7:15 PM	**94**	**1**	**0**	**1**	**15**	**0**	**32**	**174**	**0**	**BUILD ENTERING PEAK HOUR**	317
	PHF	**0.72**		**PHF**	**0.70**		**PHF**	**0.81**		**PHF'S**	5.7%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
9:30-10:30 PM	26	0	0	0	7	0	2	38	0	NO-BUILD	
9:30-10:30 PM					23		0			ADD-ONS FRIDAY SMALL CONCE	23
9:30-10:30 PM	**26**	**0**	**0**	**0**	**30**	**0**	**2**	**38**	**0**	**BUILD EXITING PEAK HOUR**	96
	PHF	**0.86**		**PHF**	**0.50**		**PHF**	**0.71**		**PHF'S**	23.9%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:15-7:15 PM	94	1	0	1	14	0	15	174	0	NO-BUILD	
6:15-7:15 PM					2		31			ADD-ONS FRIDAY LARGE CONCI	33
6:15-7:15 PM	**94**	**1**	**0**	**1**	**16**	**0**	**46**	**174**	**0**	**BUILD ENTERING PEAK HOUR**	332
	PHF	**0.72**		**PHF**	**0.70**		**PHF**	**0.81**		**PHF'S**	9.9%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
9:30-10:30 PM	26	0	0	0	7	0	2	38	0	NO-BUILD	
9:30-10:30 PM					41		1			ADD-ONS FRIDAY LARGE CONCI	42
9:30-10:30 PM	**26**	**0**	**0**	**0**	**48**	**0**	**3**	**38**	**0**	**BUILD EXITING PEAK HOUR**	115
	PHF	**0.86**		**PHF**	**0.50**		**PHF**	**0.71**		**PHF'S**	36.5%

	Farmers Road (Route 111) From North			Peabody Street From East			Farmers Road (Route 111) From South				% Addons to Total
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
11:00-12:00 PM	130	3	0	1	21	0	29	150	0	NO-BUILD	
11:00-12:00 PM					3		18			ADD-ONS SUMMER FESTIVAL	21
11:00-12:00 PM	**130**	**3**	**0**	**1**	**24**	**0**	**47**	**150**	**0**	**BUILD ENTERING PEAK HOUR**	355
	PHF	**0.82**		**PHF**	**0.75**		**PHF**	**0.92**		**PHF'S**	5.9%

	Boston Road (Route 119/225) From North			Boston Road (Route 119/225) From South			Old Ayer Road North From West				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:00-7:00 PM	83	1	0	1	14	0	15	74	0	NO-BUILD	
6:00-7:00 PM					34		2			ADD-ONS SUMMER FESTIVAL	36
6:00-7:00 PM	**83**	**1**	**0**	**1**	**48**	**0**	**17**	**74**	**0**	**BUILD EXITING PEAK HOUR**	223
	PHF	**0.71**		**PHF**	**0.875**		**PHF**	**0.69**		**PHF'S**	16.1%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		% Add-ons to Traffic
4:45-5:45 PM	0	169	37	0	130	0	0	0	2	332	0	0	0	0	0	0	NO-BUILD	
4:45-5:45 PM			5		4												ADD-ONS MONDAY SCHOOL PE/	9
4:45-5:45 PM	**0**	**169**	**42**	**0**	**134**	**0**	**0**	**0**	**2**	**332**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	680
	PHF	**0.83**			**PHF**	**0.92**			**PHF**	**0.82**			**PHF**	**#DIV/0!**			**PHF'S**	1.3%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
6:00-7:00 PM	0	102	23	0	69	0	0	0	2	163	0	0	0	0	0	0	NO-BUILD	
6:00-7:00 PM			4		6												ADD-ONS MONDAY SCHOOL PE/	10
6:00-7:00 PM	**0**	**102**	**27**	**0**	**75**	**0**	**0**	**0**	**2**	**163**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	369
	PHF	**0.83**			**PHF**	**0.66**			**PHF**	**0.76**			**PHF**	**#DIV/0!**			**PHF'S**	2.7%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
6:15-7:15 PM	0	94	17	0	54	0	0	0	2	170	0	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM			17		1												ADD-ONS FRIDAY SMALL CONCE	18
6:15-7:15 PM	**0**	**94**	**34**	**0**	**55**	**0**	**0**	**0**	**2**	**170**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	355
	PHF	**0.74**			**PHF**	**0.88**			PHF	0.76			PHF	#DIV/0!			**PHF'S**	5.1%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
9:30-10:30 PM	0	27	3	0	8	0	0	0	0	40	0	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM			0		23												ADD-ONS FRIDAY SMALL CONCE	23
9:30-10:30 PM	**0**	**27**	**3**	**0**	**31**	**0**	**0**	**0**	**0**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	101
	PHF	**0.75**			**PHF**	**0.58**			PHF	0.77			PHF	#DIV/0!			**PHF'S**	22.7%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
6:15-7:15 PM	0	94	17	0	54	0	0	0	2	170	0	0	0	0	0	0	NO-BUILD	
6:15-7:15 PM			31		2												ADD-ONS FRIDAY LARGE CONCI	33
6:15-7:15 PM	**0**	**94**	**48**	**0**	**56**	**0**	**0**	**0**	**2**	**170**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	370
	PHF	**0.74**			**PHF**	**0.88**			PHF	0.76			PHF	#DIV/0!			**PHF'S**	8.9%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
9:30-10:30 PM	0	27	3	0	8	0	0	0	0	40	0	0	0	0	0	0	NO-BUILD	
9:30-10:30 PM			1		41												ADD-ONS FRIDAY LARGE CONCI	41
9:30-10:30 PM	**0**	**27**	**4**	**0**	**49**	**0**	**0**	**0**	**0**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	89
	PHF	**0.75**			**PHF**	**0.58**			PHF	0.77			PHF	#DIV/0!			**PHF'S**	46.2%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
11:00-12:00 PM	1	134	32	0	33	0	0	0	2	150	0	0	0	0	0	0	NO-BUILD	
11:00-12:00 PM			18		3												ADD-ONS SUMMER FESTIVAL	21
11:00-12:00 PM	**1**	**134**	**50**	**0**	**36**	**0**	**0**	**0**	**2**	**150**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	373
	PHF	**0.81**		**PHF**	**0.73**				**PHF**	**0.88**			**PHF**	**#DIV/0!**			**PHF'S**	5.6%

	Farmers Road (Route 111) From North				Higley Street From East				Farmers Road (Route 111) From South				Driveway From West					
Build 2024	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Tum	Right	Thru	Left	U-Tum		
6:00-7:00 PM	0	83	26	0	9	0	0	0	0	72	0	0	0	0	0	0	NO-BUILD	
6:00-7:00 PM			2		34												ADD-ONS SUMMER FESTIVAL	36
6:00-7:00 PM	**0**	**83**	**28**	**0**	**43**	**0**	**0**	**0**	**0**	**72**	**0**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**	226
	PHF	**0.74**			**PHF**	**0.75**			PHF	0.66			PHF	#DIV/0!			**PHF'S**	15.9%

	Higley Street From North			Peabody Street From East			Peabody Street From West				% Addons to Total
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
4:45-5:45 PM	0	38	0	132	35	0	37	0	0	NO-BUILD	
4:45-5:45 PM		5		4	4		4			ADD-ONS MONDAY SCHOOL PEAK	17
4:45-5:45 PM	**0**	**43**	**0**	**136**	**39**	**0**	**41**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	260
	PHF	**0.66**		**PHF**	**0.91**		**PHF**	**0.90**		**PHF'S**	6.5%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
6:00-7:00 PM	0	22	0	69	11	0	17	0	0	NO-BUILD	
6:00-7:00 PM		4		6	6		6			ADD-ONS MONDAY SCHOOL PEAK	22
6:00-7:00 PM	**0**	**26**	**0**	**75**	**17**	**0**	**23**	**0**	**0**	**BUILD EXITING PEAK HOUR**	141
	PHF	**0.75**		**PHF**	**0.66**		**PHF**	**0.75**		**PHF'S**	15.7%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
6:15-7:15 PM	0	19	0	52	15	0	15	0	0	NO-BUILD	
6:15-7:15 PM		17		1	1		17			ADD-ONS FRIDAY SMALL CONCERT (1,000 F	36
6:15-7:15 PM	**0**	**36**	**0**	**53**	**16**	**0**	**32**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	138
	PHF	**0.71**		**PHF**	**0.97**		**PHF**	**0.70**		**PHF'S**	26.2%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
9:30-10:30 PM	0	3	0	8	7	0	2	0	0	NO-BUILD	
9:30-10:30 PM		0		23	23		0			ADD-ONS FRIDAY SMALL CONCERT (1,000 F	46
9:30-10:30 PM	**0**	**3**	**0**	**31**	**30**	**0**	**2**	**0**	**0**	**BUILD EXITING PEAK HOUR**	66
	PHF	**0.75**		**PHF**	**0.81**		**PHF**	**0.50**		**PHF'S**	70.1%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
6:15-7:15 PM	0	19	0	52	15	0	15	0	0	NO-BUILD	
6:15-7:15 PM		31		2	2		31			ADD-ONS FRIDAY LARGE CONCERT (2,300 I	66
6:15-7:15 PM	**0**	**50**	**0**	**54**	**17**	**0**	**46**	**0**	**0**	**BUILD ENTERING PEAK HOUR**	168
	PHF	**0.71**		**PHF**	**0.97**		**PHF**	**0.70**		**PHF'S**	39.4%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
9:30-10:30 PM	0	3	0	8	7	0	2	0	0	NO-BUILD	
9:30-10:30 PM		1		41	41		1			ADD-ONS FRIDAY LARGE CONCERT (2,300 I	84
9:30-10:30 PM	**0**	**4**	**0**	**49**	**48**	**0**	**3**	**0**	**0**	**BUILD EXITING PEAK HOUR**	104
	PHF	**0.75**		**PHF**	**0.81**		**PHF**	**0.50**		**PHF'S**	81.0%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
11:00-12:00 PM	1	32	0	30	21	0	30	3	0	NO-BUILD	
11:00-12:00 PM		18		3	3		18			ADD-ONS SUMMER FESTIVAL	42
11:00-12:00 PM	**1**	**50**	**0**	**33**	**24**	**0**	**48**	**3**	**0**	**BUILD ENTERING PEAK HOUR**	160
	PHF	**0.73**		**PHF**	**0.68**		**PHF**	**0.80**		**PHF'S**	26.3%

	Higley Street From North			Peabody Street From East			Peabody Street From West				
Build 2024	Right	Left	U-Turn	Right	Thru	U-Turn	Thru	Left	U-Turn		
6:00-7:00 PM	0	24	0	11	16	0	17	0	0	NO-BUILD	
6:00-7:00 PM		2		34	34		2			ADD-ONS SUMMER FESTIVAL	72
6:00-7:00 PM	**0**	**26**	**0**	**45**	**50**	**0**	**19**	**0**	**0**	**BUILD EXITING PEAK HOUR**	140
	PHF	**0.72**		**PHF**	**0.93**		**PHF**	**0.80**		**PHF'S**	51.6%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				% Add-ons to Traffic
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
4:45-5:45 PM	176	10	0	20	1	0	0	313	0	NO-BUILD	
4:45-5:45 PM	4							5		ADD-ONS MONDAY SCHOOL PEAK	9
4:45-5:45 PM	**180**	**10**	**0**	**20**	**1**	**0**	**0**	**318**	**0**	**BUILD ENTERING PEAK HOUR**	529
	PHF	**0.87**		**PHF**	**0.71**		**PHF**	**0.89**		**PHF'S**	1.7%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:00-7:00 PM	101	7	0	14	0	0	0	160	0	NO-BUILD	
6:00-7:00 PM	6							4		ADD-ONS MONDAY SCHOOL PEAK	10
6:00-7:00 PM	**107**	**7**	**0**	**14**	**0**	**0**	**0**	**164**	**0**	**BUILD EXITING PEAK HOUR**	292
	PHF	**0.80**		**PHF**	**0.65**		**PHF**	**0.82**		**PHF'S**	3.4%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:15-7:15 PM	95	10	0	14	0	0	0	172	0	NO-BUILD	
6:15-7:15 PM	1							17		ADD-ONS FRIDAY SMALL CONCERT (1,000 F	18
6:15-7:15 PM	**96**	**10**	**0**	**14**	**0**	**0**	**0**	**189**	**0**	**BUILD ENTERING PEAK HOUR**	309
	PHF	**0.73**		**PHF**	**0.65**		**PHF**	**0.84**		**PHF'S**	5.8%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
9:30-10:30 PM	33	3	0	3	0	0	0	40	0	NO-BUILD	
9:30-10:30 PM	23							0		ADD-ONS FRIDAY SMALL CONCERT (1,000 F	23
9:30-10:30 PM	**56**	**3**	**0**	**3**	**0**	**0**	**0**	**40**	**0**	**BUILD EXITING PEAK HOUR**	102
	PHF	**0.65**		**PHF**	**0.75**		**PHF**	**0.69**		**PHF'S**	22.5%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:15-7:15 PM	95	10	0	14	0	0	0	172	0	NO-BUILD	
6:15-7:15 PM	1							31		ADD-ONS FRIDAY LARGE CONCERT (2,500 I	32
6:15-7:15 PM	**96**	**10**	**0**	**14**	**0**	**0**	**0**	**203**	**0**	**BUILD ENTERING PEAK HOUR**	323
	PHF	**0.73**		**PHF**	**0.65**		**PHF**	**0.84**		**PHF'S**	9.9%

1

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
9:30-10:30 PM	33	3	0	3	0	0	0	40	0	NO-BUILD	
9:30-10:30 PM	41									ADD-ONS FRIDAY LARGE CONCERT (2,500 I	41
9:30-10:30 PM	**74**	**3**	**0**	**3**	**0**	**0**	**0**	**40**	**0**	**BUILD EXITING PEAK HOUR**	120
	PHF	**0.65**		**PHF**	**0.75**		**PHF**	**0.69**		**PHF'S**	34.1%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
11:00-12:00 PM	118	10	0	15	0	1	2	154	0	NO-BUILD	
11:00-12:00 PM	3							18		ADD-ONS SUMMER FESTIVAL	21
11:00-12:00 PM	**121**	**10**	**0**	**15**	**0**	**1**	**2**	**172**	**0**	**BUILD ENTERING PEAK HOUR**	321
	PHF	**0.86**		**PHF**	**0.75**		**PHF**	**0.98**		**PHF'S**	6.5%

	Farmers Road (Route 111) From North			Culver Road From East			Farmers Road (Route 111) From South				
Build 2024	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn		
6:00-7:00 PM	85	4	0	7	0	0	0	81	0	NO-BUILD	
6:00-7:00 PM	34							2		ADD-ONS SUMMER FESTIVAL	36
6:00-7:00 PM	**119**	**4**	**0**	**7**	**0**	**0**	**0**	**83**	**0**	**BUILD EXITING PEAK HOUR**	214
	PHF	**0.79**		**PHF**	**0.58**		**PHF**	**0.78**		**PHF'S**	16.8%

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
4:45-5:45 PM		167		75						NO-BUILD
4:45-5:45 PM										ADD-ONS MONDAY SCHOOL PEAK
4:45-5:45 PM	**0**	**167**	**0**	**75**	**0**	**0**	**0**	**0**	**0**	**BUILD ENTERING PEAK HOUR**
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.90**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	
6:00-7:00 PM		80		33						NO-BUILD
6:00-7:00 PM										ADD-ONS MONDAY SCHOOL PEAK
6:00-7:00 PM	**0**	**80**	**0**	**33**	**0**	**0**	**0**	**0**	**0**	**BUILD EXITING PEAK HOUR**
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.90**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			Lefts to site not permitted.
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
6:15-7:15 PM	0	67	0	34	0	0	0	0	0	NO-BUILD
6:15-7:15 PM					35				1	ADD-ONS FRIDAY SMALL CONCERT (1,000 PATRONS)
6:15-7:15 PM	**0**	**67**	**0**	**34**	**35**	**0**	**0**	**0**	**1**	**BUILD ENTERING PEAK HOUR**
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
9:30-10:30 PM	0	11	0	5	0	0	0	0	0	NO-BUILD
9:30-10:30 PM					0				46	ADD-ONS FRIDAY SMALL CONCERT (1,000 PATRONS)
9:30-10:30 PM	**0**	**11**	**0**	**5**	**0**	**0**	**0**	**0**	**46**	**BUILD EXITING PEAK HOUR**
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
6:15-7:15 PM	0	67	0	34	0	0	0	0	0	NO-BUILD
6:15-7:15 PM					62				2	ADD-ONS FRIDAY LARGE CONCERT (2,500 PATRONS)
6:15-7:15 PM	**0**	**67**	**0**	**34**	**62**	**0**	**0**	**0**	**2**	**BUILD ENTERING PEAK HOUR**
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
9:30-10:30 PM	0	11	0	5	0	0	0	0	0	NO-BUILD
9:30-10:30 PM					2				83	ADD-ONS FRIDAY LARGE CONCERT (2,500 PATRONS)
9:30-10:30 PM	**0**	**11**	**0**	**5**	**2**	**0**	**0**	**0**	**83**	**BUILD EXITING PEAK HOUR**
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
11:00-12:00 PM	0	51	0	62	0	0	0	0	0	NO-BUILD
11:00-12:00 PM					37				4	ADD-ONS SUMMER FESTIVAL
11:00-12:00 PM	**0**	**51**	**0**	**62**	**37**	**0**	**0**	**0**	**4**	**BUILD ENTERING PEAK HOUR**
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.50**		**PHF'S**

	Peabody Street From East			Peabody Street From West			Site Driveway From South			
Build 2024	Right	Thru	Left	Thru	Right	Left	Right	Straight	Left	
6:00-7:00 PM	0	27	0	41	0	0	0	0	0	NO-BUILD
6:00-7:00 PM					4				68	ADD-ONS SUMMER FESTIVAL
6:00-7:00 PM	**0**	**27**	**0**	**41**	**4**	**0**	**0**	**0**	**68**	**BUILD EXITING PEAK HOUR**
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				% Addons to Total
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
4:45-5:45 PM		115		247						NO-BUILD	
4:45-5:45 PM	80				20		15	60		ADD-ONS MONDAY SCHOOL PEA	175
4:45-5:45 PM	**80**	**115**	**0**	**247**	**20**	**0**	**15**	**60**	**0**	**BUILD ENTERING PEAK HOUR**	537
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.90**		**PHF'S**	32.6%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:00-7:00 PM		95		121						NO-BUILD	
6:00-7:00 PM	68				17		25	100		ADD-ONS MONDAY SCHOOL PEA	210
6:00-7:00 PM	**68**	**95**	**0**	**121**	**17**	**0**	**25**	**100**	**0**	**BUILD EXITING PEAK HOUR**	426
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.90**		**PHF'S**	49.3%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:15-7:15 PM		118		110						NO-BUILD	
6:15-7:15 PM	259				52		2	8		ADD-ONS FRIDAY SMALL CONCE	321
6:15-7:15 PM	**259**	**118**	**0**	**110**	**52**	**0**	**2**	**8**	**0**	**BUILD ENTERING PEAK HOUR**	549
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**	58.5%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
9:30-10:30 PM		23		23						NO-BUILD	
9:30-10:30 PM	4				1		69	345		ADD-ONS FRIDAY SMALL CONCE	419
9:30-10:30 PM	**4**	**23**	**0**	**23**	**1**	**0**	**69**	**345**	**0**	**BUILD EXITING PEAK HOUR**	465
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**	90.1%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:15-7:15 PM		118		110						NO-BUILD	
6:15-7:15 PM	461				92		5	23		ADD-ONS FRIDAY LARGE CONCE	581
6:15-7:15 PM	**461**	**118**	**0**	**110**	**92**	**0**	**5**	**23**	**0**	**BUILD ENTERING PEAK HOUR**	809
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**	71.8%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
9:30-10:30 PM		20		23						NO-BUILD	
9:30-10:30 PM	15				3		124	619		ADD-ONS FRIDAY LARGE CONCE	761
9:30-10:30 PM	**15**	**20**	**0**	**23**	**3**	**0**	**124**	**619**	**0**	**BUILD EXITING PEAK HOUR**	804
	PHF	**0.50**		**PHF**	**0.90**		**PHF**	**0.50**		**PHF'S**	94.7%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
11:00-12:00 PM		125		115						NO-BUILD	
11:00-12:00 PM	274				55		10	49		ADD-ONS SUMMER FESTIVAL	388
11:00-12:00 PM	**274**	**125**	**0**	**115**	**55**	**0**	**10**	**49**	**0**	**BUILD ENTERING PEAK HOUR**	628
	PHF	**0.90**		**PHF**	**0.90**		**PHF**	**0.50**		**PHF'S**	61.8%

	Old Ayer Road From North			Old Ayer Road From South			Site Driveway From west				
Build 2024	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn		
6:00-7:00 PM		78		56						NO-BUILD	
6:00-7:00 PM	26				5		101	506		ADD-ONS SUMMER FESTIVAL	638
6:00-7:00 PM	**26**	**78**	**0**	**56**	**5**	**0**	**101**	**506**	**0**	**BUILD EXITING PEAK HOUR**	772
	PHF	**0.50**		**PHF**	**0.50**		**PHF**	**0.50**		**PHF'S**	82.6%

Detailed Trip Distribution Analysis Worksheets

TOWN	School Participants	%	Primary Route	Secondary Route		Route 119 S	Route 119 N Hollis	Route 119 N Rte 111	Route 40 N Rte 119	Peabody 111 S	Peabody 111 S	Route 225 to Hig/Pea	Old Ayer	Totals	
Brookline NH	1	0.08%	100% 119 N			55%	2.6%	1.34%	1.3%	4.5%	0.50%	0.84%	23.7%	89.9%	**Without Groton**
Keene NH	1	0.08%	100% 119 N		Normalized %		3%	1%	1%	5%	1%	1%	26%	12%	**With Groton**
Townsend	12	1.00%	100% 119 N												
W. Townsend	1	0.08%	100% 119 N			Route 119 to/from S			Route 119 N			Peabody St to/from West	Old Ayer Rd - to/from S		
West Townsend	1	0.08%	100% 119 N			61%			5%			7%	26%	99%	
Amherst NH	2	0.17%	100% 119 N (50-50 between 111 and Hollis)												
Hollis NH	3	0.25%	100% 119 N (50-50 between 111 and Hollis)												
Pepperell	14	1.17%	100% 119 N (50-50 between 111 and Hollis)		Use for	60% to and from 119 S									
Dunstable	5	0.42%	100% 119 N all from Hollis St		MCIH	10% to and from 119 N (5% from Route 40/5% northerly)									
Londonderry NH	1	0.08%	100% 119 N all from Hollis St		School	10% to and from Peabody St (3% from Long View; 2% south on Farmers Row, 5% northbound on Farmers Row									
Manchester NH	2	0.17%	100% 119 N all from Hollis St		Related	20% to and from Old Ayer Rd									
Merrimack NH	1	0.08%	100% 119 N all from Hollis St		Distribution										
Nashua NH	7	0.58%	100% 119 N all from Hollis St		Patterm	Assumes, as noted by School, of slightly greater northerly and westerly orientation over time.									
Tyngsborough	6	0.50%	100% 119 N all from Hollis St												
Andover	4	0.33%	100% 119 S												
Arlington	2	0.17%	100% 119 S												
Ashland	1	0.08%	100% 119 S												
Berlin	3	0.25%	100% 119 S												
Beverly	1	0.08%	100% 119 S												
Billerica	7	0.58%	100% 119 S												
Boxford	1	0.08%	100% 119 S												
Brighton	1	0.08%	100% 119 S												
Brockton	1	0.08%	100% 119 S												
Burlington	1	0.08%	100% 119 S												
Carlisle	23	1.92%	100% 119 S												
Derry NH	1	0.08%	100% 119 S												
Framingham	1	0.08%	100% 119 S												
Hanscom Air Force Base	1	0.08%	100% 119 S												
Haverhill	1	0.08%	100% 119 S												
Hopkinton	1	0.08%	100% 119 S												
Hudson	5	0.42%	100% 119 S												
Hudson NH	1	0.08%	100% 119 S												
Lincoln	3	0.25%	100% 119 S												
Marlborough	6	0.50%	100% 119 S												
Maynard	5	0.42%	100% 119 S												
Mendon	1	0.08%	100% 119 S												
Methuen	1	0.08%	100% 119 S												
N.Billerica	1	0.08%	100% 119 S												
Needham	1	0.08%	100% 119 S												
North Billerica	1	0.08%	100% 119 S												
Northborough	3	0.25%	100% 119 S												
Shrewsbury	5	0.42%	100% 119 S												
Sudbury	5	0.42%	100% 119 S												
Tewksbury	4	0.33%	100% 119 S												
Upton	1	0.08%	100% 119 S												
Waltham	1	0.08%	100% 119 S												
Wayland	1	0.08%	100% 119 S												
West Roxbury	1	0.08%	100% 119 S												
Westboro	1	0.08%	100% 119 S												
Westford	176	14.70%	100% 119 S												
Weston	1	0.08%	100% 119 S												
Wilmington	1	0.08%	100% 119 S												
Woburn	1	0.08%	100% 119 S												
Bedford	4	0.33%	100% 119 S (from Old Forge Village Road Rte 225)												
Ashburnham	1	0.08%	100% 225W to 111 S to Higley and Peabody St.												
Lunenburg	7	0.58%	100% 225W to 111 S to Higley and Peabody St.												
Belmont	4	0.33%	100% Old Ayer												
Cambridge	1	0.08%	100% Old Ayer												
Dedham	1	0.08%	100% Old Ayer												
Erving	1	0.08%	100% Old Ayer												
Gardner	1	0.08%	100% Old Ayer												
Holden	1	0.08%	100% Old Ayer												
Lancaster	3	0.25%	100% Old Ayer												
Leominster	4	0.33%	100% Old Ayer												
Millbury	2	0.17%	100% Old Ayer												
Sterling	3	0.25%	100% Old Ayer												
Still River	2	0.17%	100% Old Ayer												
Westminster	1	0.08%	100% Old Ayer												
Boylston	2	0.17%	100% Old Ayer												
Clinton	6	0.50%	100% Old Ayer												
Harvard	81	6.77%	100% Old Ayer												
Devens	2	0.17%	100% Peabody St to/from 111 S												
Fitchburg	1	0.08%	100% Peabody to and from Higley Pigley and 225 W												
West Groton	1	0.08%	100% Peabody to and from Higley Pigley and 225 W												
N. Chelmsford	1	0.08%	100% Rte 40(w/shortcut to Gay Rd/Whitman/Lovers Lane)												
North Chelmsford	3	0.25%	100% Rte 40(w/shortcut to Gay Rd/Whitman/Lovers Lane)												
Lexington	4	0.33%	100% 119 S												
Windham NH	2	0.17%	50% 119 N all from Hollis	50% 119 S											
Boxboro	1	0.08%	50% 119 S	50% Old Ayer											
Acton	244	20.38%	70% 119 S	30% Old Ayer											
Litteton	8	0.67%	70% 119S	30% Old Ayer											
Littleton	110	9.19%	70% 119S	30% Old Ayer											
Ayer	47	3.93%	50% Old Ayer	50% Peabody St											
Watertown	2	0.17%	100% 119 S												
Dracut	5	0.42%	50% Rte 40 (w/shortcut to Gay Rd/Whitman/Lovers Lane)	50% 119 S											
Boxborough	45	3.76%	100% 119 S												
Concord	31	2.59%	100% 119 S												
Lowell	9	0.75%	100% 119 S	30% Rte 40 (w/shortcut to Gay Rd/Whitman/Lovers Lane)											
Stow	15	1.25%	70% Old Ayer	30% 119 S											
Shirley	40	3.34%	70% Peabody St	30% Old Ayer Rd											
Chelmsford	32	2.67%	80% 119 S	20% Rte 40 (w/shortcut to Gay Rd/Whitman/Lovers Lane)											
Bolton	29	2.42%	90% Old Ayer	10% 119 S											
Groton	107	8.94%	Relative to all routes												
	1197	91.06%	Excludes Groton												

FY15 Concert-goers	Number of Patrons	%	Primary Route	Secondary Route
Ashby	12	0.2%	100% 119 N	
Brookline NH	4	0.1%	100% 119 N	
Mason NH	4	0.1%	100% 119 N	
Mont Vernon NH	8	0.1%	100% 119 N	
Townsend	122	2.0%	100% 119 N	
Amherst NH	12	0.2%	100% 119 N (50-50 between 111 and Hollis)	
Hollis NH	17	0.3%	100% 119 N (50-50 between 111 and Hollis)	
Pepperell	126	2.1%	100% 119 N (50-50 between 111 and Hollis)	
Nashua NH	40	0.7%	100% 119 N (via Hollis)	
Dunstable	1	0.0%	100% 119 N all from Hollis St	
Tyngsborough	32	0.5%	100% 119 N all from Hollis St	
Andover	38	0.6%	100% 119 S	
Arlington	26	0.4%	100% 119 S	
Berlin	5	0.1%	100% 119 S	
Beverly	6	0.1%	100% 119 S	
Billerica	34	0.6%	100% 119 S	
Boston (greater)	76	1.3%	100% 119 S	
Boxborough	158	2.6%	100% 119 S	
Burlington	16	0.3%	100% 119 S	
Carlisle	48	0.8%	100% 119 S	
Concord	158	2.6%	100% 119 S	
Haverhill	6	0.1%	100% 119 S	
Hopkinton	6	0.1%	100% 119 S	
Hudson	18	0.3%	100% 119 S	
Lexington	41	0.7%	100% 119 S	
Lincoln	73	1.2%	100% 119 S	
Marlborough	22	0.4%	100% 119 S	
Maynard	44	0.7%	100% 119 S	
Medway	4	0.1%	100% 119 S	
Mendon	3	0.1%	100% 119 S	
Methuen	2	0.0%	100% 119 S	
Milford	9	0.2%	100% 119 S	
Peabody	7	0.1%	100% 119 S	
Shrewsbury	21	0.4%	100% 119 S	
Southborough	2	0.0%	100% 119 S	
Stoneham	12	0.2%	100% 119 S	
Sudbury	39	0.7%	100% 119 S	
Tewksbury	37	0.6%	100% 119 S	
Westborough	4	0.1%	100% 119 S	
Westford	397	6.6%	100% 119 S	
Bedford	75	1.3%	100% 119 S (from Old Forge Village Road Rte 225)	
Ashburnham	2	0.0%	100% 225W to 111 S to Higley and Peabody St.	
Lunenburg	24	0.4%	100% 225W to 111 S to Higley and Peabody St.	
Cambridge	21	0.4%	100% Old Ayer	
Clinton	6	0.1%	100% Old Ayer	
Holden	3	0.1%	100% Old Ayer	
Leeds	5	0.1%	100% Old Ayer	
Leominster	49	0.8%	100% Old Ayer	
Phillipston	10	0.2%	100% Old Ayer	
Sterling	10	0.2%	100% Old Ayer	
W Boylston	24	0.4%	100% Old Ayer	
Harvard	552	9.2%	100% Old Ayer	
Lancaster	2	0.0%	100% Old Ayer	
Devens	5	0.1%	100% Peabody St to/from 111 S	
Fitchburg	32	0.5%	100% Peabody to and from Higley Pigley and 225 W	
Lowell	33	0.6%	50% 119 S	50% Lowell Road
Ayer	145	2.4%	50% Old Ayer	50% Peabody St
Dracut	13	0.2%	50% Rte 40	50% 119 S
Acton	1066	17.8%	70% 119 S	30% Old Ayer
Littleton	680	11.3%	70% 119S	30% Old Ayer
Stow	57	1.0%	70% Old Ayer	30% 119 S
Shirley	61	1.0%	70% Peabody St from 111S	30% Old Ayer Rd
Chelmsford	420	7.0%	80% 119 S	20% Rte 40
Worcester	4	0.1%	80% 119 S	20% Old Ayer
Bolton	89	1.5%	90% Old Ayer	10% 119 S
Groton	922	15.4%	Relative to all routes	
	5988	84.4%		

	Route 119 S	Route 119 N Hollis	Route 119 N	Route 119 N Rte 111	Route 40 & Rte 119 N	Peabody 111 S	Route 225 to Hig/Pea	Old Ayer		
Normalized %	59%	2%	3%	2%	2%	2%	1%	15%	84%	W/O Groton
	Route 119 to/from S			Route 119 N			Peabody St to/from West	Old Ayer Rd - to/from S	All Directions Total	
	69%			10%			4%	17%	100%	W/Groton

Use for	65% to and from 119 S
MCIH	10% to and from 119 N (5% from Route 40/5% northerly)
Concert & Festival	10% to and from Peabody St (3% from Long View; 2% south on Farmers Row, 5% northbound on Farmers Row
Distribution	15% to and from Old Ayer Rd
	Assumption, as noted by School, of slightly greater northerly and westerly over time.

Northbound Boston Road
Left turn Lane Warrant Analysis
For Evaluated Build Conditions

Left Lane Warrant Analysis

2024 Monday School Peaks –

Early Peak Hour 4:45-5:45 PM- (6:00-7:00 PM)

Exhibit 6-23
Criteria for Left Turn Lanes

A. Unsignalized Intersections, Two-Lane Roads and Streets:

Design Speed	Opposing Volume (motor vehicles per hour)	Advancing Motor Vehicle Volume (vehicles per hour) 5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
30 mph or less	800	370	265	195	185
	600	460	345	250	225
	400	570	430	305	275
	200	720	530	390	335
40 mph	800	330	240	180	160
	600	410	305	225	200
	400	510	380	275	245
	200	640	470	350	305
50 mph	800	280	210	165	135
	600	350	260	195	170
	400	430	320	240	210
	200	550	400	300	270
60 mph	800	230	170	125	115
	600	290	210	160	140
	400	365	270	200	175
	200	450	330	250	215

85th percentile design speed 39 MPH

Opposing Volumes: 354 (274)

Advancing Volumes: 1056 (809)

Warrants Met: yes (yes)

Table Source: MassDOT Project Development and Design Guide (2006), as amended.

Left Lane Warrant Analysis

2024 Friday Concert Peaks 1,000 Patrons –
Early Peak Hour 6:15-7:15 PM- (9:30-10:30 PM)

Exhibit 6-23
Criteria for Left Turn Lanes

A. Unsignalized Intersections, Two-Lane Roads and Streets:

Design Speed	Opposing Volume (motor vehicles per hour)	Advancing Motor Vehicle Volume (vehicles per hour) 5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
30 mph or less	800	370	265	195	185
	600	460	345	250	225
	400	570	430	305	275
	200	720	530	390	335
40 mph	800	330	240	180	160
	600	410	305	225	200
	400	510	380	275	245
	200	640	470	350	305
50 mph	800	280	210	165	135
	600	350	260	195	170
	400	430	320	240	210
	200	550	400	300	270
60 mph	800	230	170	125	115
	600	290	210	160	140
	400	365	270	200	175
	200	450	330	250	215

85th percentile design speed 39 MPH

Opposing Volumes: 258 (73)
Advancing Volumes: 751 (175)
Warrants Met: yes (no)

Table Source: MassDOT Project Development and Design Guide (2006), as amended.

Left Lane Warrant Analysis

2024 Friday Concert Peaks 2,500 Patrons -
Early Peak Hour 6:15-7:15 PM- (9:30-10:30 PM)

Exhibit 6-23
Criteria for Left Turn Lanes

A. Unsignalized Intersections, Two-Lane Roads and Streets:

Design Speed	Opposing Volume (motor vehicles per hour)	Advancing Motor Vehicle Volume (vehicles per hour) 5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
30 mph or less	800	370	265	195	185
	600	460	345	250	225
	400	570	430	305	275
	200	720	530	390	335
40 mph	800	330	240	180	160
	600	410	305	225	200
	400	510	380	275	245
	200	640	470	350	305
50 mph	800	280	210	165	135
	600	350	260	195	170
	400	430	320	240	210
	200	550	400	300	270
60 mph	800	230	170	125	115
	600	290	210	160	140
	400	365	270	200	175
	200	450	330	250	215

85th percentile design speed 39 MPH

Opposing Volumes: 258 (73)
Advancing Volumes: 751 (175)
Warrants Met: yes (no)

Table Source: MassDOT Project Development and Design Guide (2006), as amended.

Left Lane Warrant Analysis

2024 Saturday Summer Music Festival Peaks 2,500 Patrons

- Early Peak Hour 6:15-7:15 PM- (9:30-10:30 PM)

Exhibit 6-23
Criteria for Left Turn Lanes

A. Unsignalized Intersections, Two-Lane Roads and Streets:

Design Speed	Opposing Volume (motor vehicles per hour)	Advancing Motor Vehicle Volume (vehicles per hour) 5% Left Turns	10% Left Turns	20% Left Turns	30% Left Turns
30 mph or less	800	370	265	195	185
	600	460	345	250	225
	400	570	430	305	275
	200	720	530	390	335
40 mph	800	330	240	180	160
	600	410	305	225	200
	400	510	380	275	245
	200	640	470	350	305
50 mph	800	280	210	165	135
	600	350	260	195	170
	400	430	320	240	210
	200	550	400	300	270
60 mph	800	230	170	125	115
	600	290	210	160	140
	400	365	270	200	175
	200	450	330	250	215

85th percentile design speed 39 MPH

Opposing Volumes: 552 (310)

Advancing Volumes: 508 (408)

Warrants Met: yes (yes)

Table Source: MassDOT Project Development and Design Guide (2006), as amended.