

# Lanes, Volumes, Timings

## 3: Mass Ave & Shirley/Newmarket

07/14/2019



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	105	216	153	99	59	153	287	270	0	715	58
Future Volume (vph)	0	105	216	153	99	59	153	287	270	0	715	58
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	100		0	100		0	50		0
Storage Lanes	0		0	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.909			0.944				0.850		0.990	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	1710	0	1787	1719	0	1787	1863	1615	0	1854	0
Flt Permitted				0.950			0.077					
Satd. Flow (perm)	0	1710	0	1787	1719	0	145	1863	1615	0	1854	0
Right Turn on Red			Yes			Yes			Yes			No
Satd. Flow (RTOR)		91			32				293			
Link Speed (mph)		25			25			25				25
Link Distance (ft)		520			563			401				394
Travel Time (s)		14.2			15.4			10.9				10.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	4%	3%	0%	1%	1%	10%	1%	2%	0%	8%	1%	7%
Adj. Flow (vph)	0	114	235	166	108	64	166	312	293	0	777	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	0	166	172	0	166	312	293	0	840	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA		Prot	NA		pm+pt	NA	Perm		NA	
Protected Phases		7		8	3		5	2			6	
Permitted Phases							2		2			
Minimum Split (s)		19.0		10.0	21.0		9.5	30.0	30.0		30.0	
Total Split (s)		22.0		16.0	38.0		10.0	62.0	62.0		52.0	
Total Split (%)		22.0%		16.0%	38.0%		10.0%	62.0%	62.0%		52.0%	
Maximum Green (s)		18.0		12.0	34.0		6.0	58.0	58.0		48.0	
Yellow Time (s)		3.0		3.0	3.0		3.0	3.0	3.0		3.0	
All-Red Time (s)		1.0		1.0	1.0		1.0	1.0	1.0		1.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)		4.0		4.0	4.0		4.0	4.0	4.0		4.0	
Lead/Lag		Lag		Lead			Lead				Lag	
Lead-Lag Optimize?		Yes		Yes			Yes				Yes	
Walk Time (s)		7.0		7.0	7.0			7.0	7.0		7.0	
Flash Dont Walk (s)		11.0		11.0	11.0			11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0		0	0			0	0		0	
Act Effect Green (s)		18.0		12.0	34.0		58.0	58.0	58.0		48.0	
Actuated g/C Ratio		0.18		0.12	0.34		0.58	0.58	0.58		0.48	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.91		0.78	0.28		0.91	0.29	0.28			0.94
Control Delay		59.7		67.6	21.0		67.5	11.5	1.9			45.5
Queue Delay		0.0		0.0	0.0		0.0	0.0	0.0			0.0
Total Delay		59.7		67.6	21.0		67.5	11.5	1.9			45.5
LOS		E		E	C		E	B	A			D
Approach Delay		59.7			43.9			19.9				45.5
Approach LOS		E			D			B				D

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	100
Offset:	60 (60%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
Natural Cycle:	90
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	38.8
Intersection LOS:	D
Intersection Capacity Utilization	90.2%
ICU Level of Service	E
Analysis Period (min)	15

Splits and Phases: 3: Mass Ave & Shirley/Newmarket

