Appendix

- Traffic Volume Data
- Pedestrian/Bicycle Data
- Seasonal/Yearly Growth Calculations
- Car Sharing
- Bicycle Sharing
- Public Transportation/Shuttle Information
- Background Growth
- Trip Generation Data
- Trip Distribution Calculations
- Capacity Analysis
- Parking Observations
- AutoTurn® Exhibits

□ Traffic Volume Data

Massachusetts Avenue
norrth of South Bay Driveway (Stop & Shop)
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

144163 A VOLUME
Site Code: 804
Date Start: 13-Nov-14

Start	SB				NB				Combined				13-Nov-14
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Thu
12:00	46		147		26		142		72		289		
12:15	48		151		21		142		69		293		
12:30	31		156		14		135		45		291		
12:45	18	143	150	604	18	79	123	542	36	222	273	1146	
01:00	30		144		8		149		38		293		
01:15	28		137		17		162		45		299		
01:30	17		141		17		157		34		298		
01:45	24	99	154	576	15	57	149	617	39	156	303	1193	
02:00	17		134		10		153		27		287		
02:15	25		170		10		157		35		327		
02:30	18		154		5		161		23		315		
02:45	8	68	157	615	10	35	182	653	18	103	339	1268	
03:00	13		162		11		177		24		339		
03:15	10		166		9		163		19		329		
03:30	10		142		8		171		18		313		
03:45	12	45	181	651	8	36	137	648	20	81	318	1299	
04:00	4		197		14		158		18		355		
04:15	15		187		15		153		30		340		
04:30	14		170		18		144		32		314		
04:45	11	44	178	732	21	68	145	600	32	112	323	1332	
05:00	21		198		33		148		54		346		
05:15	23		190		35		125		58		315		
05:30	30		174		47		150		77		324		
05:45	37	111	162	724	66	181	137	560	103	292	299	1284	
06:00	43		167		89		146		132		313		
06:15	43		165		138		136		181		301		
06:30	64		172		141		132		205		304		
06:45	85	235	149	653	178	546	128	542	263	781	277	1195	
07:00	79		134		181		128		260		262		
07:15	94		123		204		130		298		253		
07:30	93		135		184		123		277		258		
07:45	85	351	121	513	185	754	149	530	270	1105	270	1043	
08:00	89		101		167		124		256		225		
08:15	99		111		183		121		282		232		
08:30	98		135		180		84		278		219		
08:45	99	385	97	444	165	695	87	416	264	1080	184	860	
09:00	110		88		166		92		276		180		
09:15	141		99		143		87		284		186		
09:30	128		81		153		89		281		170		
09:45	118	497	81	349	158	620	77	345	276	1117	158	694	
10:00	121		84		168		68		289		152		
10:15	153		70		157		60		310		130		
10:30	132		77		153		59		285		136		
10:45	110	516	54	285	135	613	60	247	245	1129	114	532	
11:00	144		73		132		45		276		118		
11:15	138		67		160		43		298		110		
11:30	142		76		156		37		298		113		
11:45	156	580	48	264	145	593	48	173	301	1173	96	437	
Total	3074		6410		4277		5873		7351		12283		
Percent	41.8%		52.2%		58.2%		47.8%						
Day Total		9484				10150				19634			
Peak	11:00	-	04:45	-	07:00	-	02:45	-	11:00	-	04:00	-	-	-
Vol.	580	-	740	-	754	-	693	-	1173	-	1332	-	-	-
P.H.F.	0.929		0.934		0.924		0.952		0.946		0.938			

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144163 A VOLUME
Site Code: 804
Date Start: 13-Nov-14

Start	SB				NB				Combined				15-Nov-14
Time	A.M.		P.M.		A.M.		P.M.		A.M.		P.M.		Sat
12:00	55		130		39		148		94		278		
12:15	47		159		48		143		95		302		
12:30	62		172		34		148		96		320		
12:45	55	219	145	606	44	165	149	588	99	384	294	1194	
01:00	42		156		30		138		72		294		
01:15	50		140		25		121		75		261		
01:30	40		135		40		132		80		267		
01:45	28	160	151	582	39	134	139	530	67	294	290	1112	
02:00	43		156		26		134		69		290		
02:15	43		149		40		154		83		303		
02:30	56		141		19		163		75		304		
02:45	50	192	139	585	32	117	137	588	82	309	276	1173	
03:00	46		147		18		129		64		276		
03:15	37		155		21		138		58		293		
03:30	38		159		19		134		57		293		
03:45	25	146	159	620	22	80	128	529	47	226	287	1149	
04:00	19		125		20		133		39		258		
04:15	19		165		11		128		30		293		
04:30	11		161		18		142		29		303		
04:45	16	65	152	603	14	63	139	542	30	128	291	1145	
05:00	29		196		18		130		47		326		
05:15	11		128		35		130		46		258		
05:30	27		149		28		146		55		295		
05:45	24	91	146	619	27	108	124	530	51	199	270	1149	
06:00	48		128		24		150		72		278		
06:15	70		156		37		125		107		281		
06:30	152		154		73		130		225		284		
06:45	150	420	121	559	64	198	158	563	214	618	279	1122	
07:00	167		131		77		140		244		271		
07:15	179		131		81		132		260		263		
07:30	170		133		67		130		237		263		
07:45	198	714	113	508	91	316	118	520	289	1030	231	1028	
08:00	187		115		102		105		289		220		
08:15	162		120		111		106		273		226		
08:30	168		107		146		98		314		205		
08:45	146	663	95	437	127	486	92	401	273	1149	187	838	
09:00	143		98		116		80		259		178		
09:15	155		84		136		99		291		183		
09:30	148		107		143		90		291		197		
09:45	141	587	83	372	148	543	97	366	289	1130	180	738	
10:00	153		75		139		84		292		159		
10:15	145		76		154		90		299		166		
10:30	162		67		146		83		308		150		
10:45	152	612	96	314	150	589	68	325	302	1201	164	639	
11:00	168		81		166		58		334		139		
11:15	142		66		154		75		296		141		
11:30	141		81		152		61		293		142		
11:45	131	582	71	299	110	582	55	249	241	1164	126	548	
Total	4451		6104		3381		5731		7832		11835		
Percent	56.8%		51.6%		43.2%		48.4%						
Day Total		10555				9112				19667			
Peak	07:15	-	04:15	-	10:45	-	01:45	-	10:15	-	04:15	-	- -
Vol.	734	-	674	-	622	-	590	-	1243	-	1213	-	- -
P.H.F.	0.927		0.860		0.937		0.905		0.930		0.930		

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144163 A CLASS
Site Code: 804
Date Start: 13-Nov-14

NB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/13/1														
4	0	59	13	0	7	0	0	0	0	0	0	0	0	79
01:00	0	39	11	1	5	0	0	1	0	0	0	0	0	57
02:00	0	23	11	0	1	0	0	0	0	0	0	0	0	35
03:00	0	24	10	1	0	0	0	1	0	0	0	0	0	36
04:00	0	45	14	2	6	1	0	0	0	0	0	0	0	68
05:00	1	119	44	3	9	1	0	4	0	0	0	0	0	181
06:00	6	349	110	7	47	6	2	16	1	2	0	0	0	546
07:00	12	527	136	4	47	12	1	14	1	0	0	0	0	754
08:00	8	479	142	5	40	7	0	12	2	0	0	0	0	695
09:00	6	442	116	4	37	8	1	5	0	1	0	0	0	620
10:00	5	452	105	0	33	6	1	7	3	1	0	0	0	613
11:00	5	426	123	2	28	3	2	1	3	0	0	0	0	593
12 PM	11	427	73	1	17	7	0	4	1	0	0	0	1	542
13:00	11	456	105	4	31	7	1	2	0	0	0	0	0	617
14:00	7	495	110	4	24	4	1	6	1	0	0	0	1	653
15:00	5	511	110	3	18	1	0	0	0	0	0	0	0	648
16:00	5	473	94	1	12	6	1	7	0	1	0	0	0	600
17:00	9	446	84	1	14	3	0	2	0	1	0	0	0	560
18:00	4	403	104	1	19	6	0	4	0	1	0	0	0	542
19:00	3	410	96	1	12	3	0	4	0	1	0	0	0	530
20:00	1	311	94	0	6	0	0	4	0	0	0	0	0	416
21:00	2	257	71	3	9	1	0	1	1	0	0	0	0	345
22:00	0	186	56	0	3	0	0	2	0	0	0	0	0	247
23:00	0	123	38	2	8	0	0	2	0	0	0	0	0	173
Total	101	7482	1870	50	433	82	10	99	13	8	0	0	2	10150
Percent	1.0%	73.7%	18.4%	0.5%	4.3%	0.8%	0.1%	1.0%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	06:00	06:00	07:00	06:00	06:00	10:00	06:00				07:00
Vol.	12	527	142	7	47	12	2	16	3	2				754
PM Peak	12:00	15:00	14:00	13:00	13:00	12:00	13:00	16:00	12:00	16:00			12:00	14:00
Vol.	11	511	110	4	31	7	1	7	1	1			1	653

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11/13/1														
4	0	41	89	2	10	0	0	1	0	0	0	0	0	143
01:00	0	36	57	0	5	1	0	0	0	0	0	0	0	99
02:00	1	24	32	1	6	1	0	3	0	0	0	0	0	68
03:00	2	16	20	1	4	2	0	0	0	0	0	0	0	45
04:00	0	6	28	4	6	0	0	0	0	0	0	0	0	44
05:00	1	31	46	7	25	0	0	1	0	0	0	0	0	111
06:00	1	81	89	10	44	7	0	1	2	0	0	0	0	235
07:00	3	141	144	4	42	9	0	5	2	0	0	1	0	351
08:00	5	169	136	10	45	13	1	6	0	0	0	0	0	385
09:00	4	202	199	8	73	7	1	2	1	0	0	0	0	497
10:00	7	243	175	5	65	11	1	8	0	1	0	0	0	516
11:00	1	245	232	6	78	8	0	10	0	0	0	0	0	580
12 PM	4	296	228	5	60	6	0	4	1	0	0	0	0	604
13:00	6	263	232	2	55	12	0	6	0	0	0	0	0	576
14:00	6	292	218	8	66	14	0	11	0	0	0	0	0	615
15:00	4	321	246	2	52	9	0	13	3	0	1	0	0	651
16:00	7	335	295	6	56	7	0	25	0	1	0	0	0	732
17:00	8	366	271	7	39	8	0	21	2	1	1	0	0	724
18:00	7	313	272	5	37	3	0	14	0	2	0	0	0	653
19:00	1	251	221	5	22	2	0	11	0	0	0	0	0	513
20:00	5	200	202	2	26	5	0	4	0	0	0	0	0	444
21:00	2	148	171	2	15	5	0	5	0	1	0	0	0	349
22:00	3	125	132	2	15	0	0	7	0	1	0	0	0	285
23:00	1	116	129	1	16	0	0	1	0	0	0	0	0	264
Total	79	4261	3864	105	862	130	3	159	11	7	2	1	0	9484
Percent	0.8%	44.9%	40.7%	1.1%	9.1%	1.4%	0.0%	1.7%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	06:00	11:00	08:00	08:00	11:00	06:00	10:00		07:00		11:00
Vol.	7	245	232	10	78	13	1	10	2	1		1		580
PM Peak	17:00	17:00	16:00	14:00	14:00	14:00		16:00	15:00	18:00	15:00			16:00
Vol.	8	366	295	8	66	14		25	3	2	1			732

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11/15/1														
4	1	129	27	1	3	0	1	2	0	1	0	0	0	165
01:00	0	104	26	0	3	1	0	0	0	0	0	0	0	134
02:00	0	95	17	0	4	1	0	0	0	0	0	0	0	117
03:00	0	63	16	0	1	0	0	0	0	0	0	0	0	80
04:00	0	53	5	1	4	0	0	0	0	0	0	0	0	63
05:00	1	68	31	0	6	1	0	1	0	0	0	0	0	108
06:00	1	134	48	4	9	0	0	2	0	0	0	0	0	198
07:00	3	230	59	3	18	1	0	2	0	0	0	0	0	316
08:00	4	378	79	2	14	4	0	5	0	0	0	0	0	486
09:00	3	429	80	3	17	8	0	3	0	0	0	0	0	543
10:00	11	483	70	1	14	6	0	4	0	0	0	0	0	589
11:00	18	481	67	0	6	6	1	3	0	0	0	0	0	582
12 PM	15	482	82	1	4	1	0	3	0	0	0	0	0	588
13:00	4	451	63	2	2	6	0	2	0	0	0	0	0	530
14:00	16	491	59	1	11	5	0	3	1	0	1	0	0	588
15:00	9	453	53	1	6	5	0	1	0	1	0	0	0	529
16:00	11	447	62	1	9	5	0	3	1	0	2	0	1	542
17:00	11	448	60	2	6	1	0	2	0	0	0	0	0	530
18:00	7	458	72	0	11	6	1	8	0	0	0	0	0	563
19:00	0	438	70	3	1	4	0	4	0	0	0	0	0	520
20:00	1	324	63	2	8	1	0	1	0	1	0	0	0	401
21:00	0	292	64	1	3	1	0	5	0	0	0	0	0	366
22:00	1	268	48	0	5	1	0	2	0	0	0	0	0	325
23:00	0	191	54	1	2	1	0	0	0	0	0	0	0	249
Total	117	7390	1275	30	167	65	3	56	2	3	3	0	1	9112
Percent	1.3%	81.1%	14.0%	0.3%	1.8%	0.7%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	10:00	09:00	06:00	07:00	09:00	00:00	08:00		00:00				10:00
Vol.	18	483	80	4	18	8	1	5		1				589
PM Peak	14:00	14:00	12:00	19:00	14:00	13:00	18:00	18:00	14:00	15:00	16:00		16:00	12:00
Vol.	16	491	82	3	11	6	1	8	1	1	2		1	588
Total		22901	4904	117	986	233	27	254	22	14	5	1	3	29792

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11/15/1														
4	1	116	88	1	9	0	0	3	1	0	0	0	0	219
01:00	0	81	70	0	8	0	0	1	0	0	0	0	0	160
02:00	0	96	88	0	7	1	0	0	0	0	0	0	0	192
03:00	0	74	65	0	6	0	0	1	0	0	0	0	0	146
04:00	0	26	30	2	5	1	0	0	1	0	0	0	0	65
05:00	1	41	35	5	7	2	0	0	0	0	0	0	0	91
06:00	5	177	147	9	56	7	0	15	3	0	0	0	1	420
07:00	2	346	236	8	88	5	1	21	2	4	1	0	0	714
08:00	5	349	209	9	70	6	1	12	2	0	0	0	0	663
09:00	6	344	182	4	42	3	0	5	0	0	0	0	1	587
10:00	9	396	158	7	31	2	0	9	0	0	0	0	0	612
11:00	9	396	146	2	22	3	0	4	0	0	0	0	0	582
12 PM	11	420	138	1	21	8	0	5	2	0	0	0	0	606
13:00	11	389	141	3	23	8	0	7	0	0	0	0	0	582
14:00	9	415	115	4	25	9	0	7	0	1	0	0	0	585
15:00	9	435	144	3	15	4	2	6	1	1	0	0	0	620
16:00	8	425	131	2	16	13	0	7	0	1	0	0	0	603
17:00	5	415	158	2	23	6	0	10	0	0	0	0	0	619
18:00	6	364	159	1	13	8	0	8	0	0	0	0	0	559
19:00	1	323	158	3	15	2	0	5	1	0	0	0	0	508
20:00	3	257	160	4	7	4	0	2	0	0	0	0	0	437
21:00	1	214	137	2	14	0	0	4	0	0	0	0	0	372
22:00	2	176	120	1	10	1	0	4	0	0	0	0	0	314
23:00	1	162	129	2	5	0	0	0	0	0	0	0	0	299
Total	105	6437	3144	75	538	93	4	136	13	7	1	0	2	10555
Percent	1.0%	61.0%	29.8%	0.7%	5.1%	0.9%	0.0%	1.3%	0.1%	0.1%	0.0%	0.0%	0.0%	
AM Peak	10:00	10:00	07:00	06:00	07:00	06:00	07:00	07:00	06:00	07:00	07:00		06:00	07:00
Vol.	9	396	236	9	88	7	1	21	3	4	1		1	714
PM Peak	12:00	15:00	20:00	14:00	14:00	16:00	15:00	17:00	12:00	14:00				15:00
Vol.	11	435	160	4	25	13	2	10	2	1				620
Total		16138	10418	281	2160	335	11	443	39	20	4	1	2	30116

N/S: Massachusetts Avenue
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City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 D
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	79	70	0	141	257	86	0	127	175	107	0	60	217	0	0	1322
07:15 AM	4	86	76	1	181	257	84	0	152	168	85	0	75	298	0	0	1467
07:30 AM	3	104	74	0	174	269	73	0	149	167	93	1	64	232	0	0	1403
07:45 AM	5	93	66	0	132	246	81	0	132	112	88	0	69	262	0	0	1286
Total	15	362	286	1	628	1029	324	0	560	622	373	1	268	1009	0	0	5478
08:00 AM	9	127	55	0	116	243	68	0	127	159	65	0	64	227	0	0	1260
08:15 AM	5	110	74	2	126	305	81	0	111	149	79	0	70	271	0	0	1383
08:30 AM	3	80	43	0	122	259	82	0	108	158	86	0	61	217	0	0	1219
08:45 AM	0	91	52	1	151	286	84	0	130	132	59	0	56	271	1	0	1314
Total	17	408	224	3	515	1093	315	0	476	598	289	0	251	986	1	0	5176
Grand Total	32	770	510	4	1143	2122	639	0	1036	1220	662	1	519	1995	1	0	10654
Apprch %	2.4	58.5	38.8	0.3	29.3	54.4	16.4	0	35.5	41.8	22.7	0	20.6	79.3	0	0	
Total %	0.3	7.2	4.8	0	10.7	19.9	6	0	9.7	11.5	6.2	0	4.9	18.7	0	0	
Cars	31	688	486	3	1081	1993	530	0	932	1087	610	1	448	1844	1	0	9735
% Cars	96.9	89.4	95.3	75	94.6	93.9	82.9	0	90	89.1	92.1	100	86.3	92.4	100	0	91.4
Heavy Vehicles	1	82	24	1	62	129	109	0	104	133	52	0	71	151	0	0	919
% Heavy Vehicles	3.1	10.6	4.7	25	5.4	6.1	17.1	0	10	10.9	7.9	0	13.7	7.6	0	0	8.6

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	79	70	0	152	141	257	86	0	484	127	175	107	0	409	60	217	0	0	277	1322
07:15 AM	4	86	76	1	167	181	257	84	0	522	152	168	85	0	405	75	298	0	0	373	1467
07:30 AM	3	104	74	0	181	174	269	73	0	516	149	167	93	1	410	64	232	0	0	296	1403
07:45 AM	5	93	66	0	164	132	246	81	0	459	132	112	88	0	332	69	262	0	0	331	1286
Total Volume	15	362	286	1	664	628	1029	324	0	1981	560	622	373	1	1556	268	1009	0	0	1277	5478
% App. Total																					
PHF	.750	.870	.941	.250	.917	.867	.956	.942	.000	.949	.921	.889	.871	.250	.949	.893	.846	.000	.000	.856	.934
Cars	14	322	270	0	606	600	971	265	0	1836	502	557	347	1	1407	235	940	0	0	1175	5024
% Cars	93.3	89.0	94.4	0	91.3	95.5	94.4	81.8	0	92.7	89.6	89.5	93.0	100	90.4	87.7	93.2	0	0	92.0	91.7
Heavy Vehicles	1	40	16	1	58	28	58	59	0	145	58	65	26	0	149	33	69	0	0	102	454
% Heavy Vehicles	6.7	11.0	5.6	100	8.7	4.5	5.6	18.2	0	7.3	10.4	10.5	7.0	0	9.6	12.3	6.8	0	0	8.0	8.3

N/S: Massachusetts Avenue
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City, State: Boston, MA
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	67	68	0	135	240	70	0	113	156	102	0	49	202	0	0	1205
07:15 AM	4	76	70	0	170	244	70	0	133	146	78	0	68	278	0	0	1337
07:30 AM	2	96	70	0	168	257	60	0	130	154	84	1	54	220	0	0	1296
07:45 AM	5	83	62	0	127	230	65	0	126	101	83	0	64	240	0	0	1186
Total	14	322	270	0	600	971	265	0	502	557	347	1	235	940	0	0	5024
08:00 AM	9	116	54	0	107	230	56	0	120	139	59	0	59	208	0	0	1157
08:15 AM	5	101	69	2	120	284	67	0	100	137	68	0	58	249	0	0	1260
08:30 AM	3	70	42	0	112	247	72	0	95	141	80	0	48	204	0	0	1114
08:45 AM	0	79	51	1	142	261	70	0	115	113	56	0	48	243	1	0	1180
Total	17	366	216	3	481	1022	265	0	430	530	263	0	213	904	1	0	4711
Grand Total	31	688	486	3	1081	1993	530	0	932	1087	610	1	448	1844	1	0	9735
Apprch %	2.6	57	40.2	0.2	30	55.3	14.7	0	35.4	41.3	23.2	0	19.5	80.4	0	0	
Total %	0.3	7.1	5	0	11.1	20.5	5.4	0	9.6	11.2	6.3	0	4.6	18.9	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	3	67	68	0	138	135	240	70	0	445	113	156	102	0	371	49	202	0	0	251	1205
07:15 AM	4	76	70	0	150	170	244	70	0	484	133	146	78	0	357	68	278	0	0	346	1337
07:30 AM	2	96	70	0	168	168	257	60	0	485	130	154	84	1	369	54	220	0	0	274	1296
07:45 AM	5	83	62	0	150	127	230	65	0	422	126	101	83	0	310	64	240	0	0	304	1186
Total Volume	14	322	270	0	606	600	971	265	0	1836	502	557	347	1	1407	235	940	0	0	1175	5024
% App. Total	2.3	53.1	44.6	0		32.7	52.9	14.4	0		35.7	39.6	24.7	0.1		20	80	0	0		
PHF	.700	.839	.964	.000	.902	.882	.945	.946	.000	.946	.944	.893	.850	.250	.948	.864	.845	.000	.000	.849	.939

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	12	2	0	6	17	16	0	14	19	5	0	11	15	0	0	117
07:15 AM	0	10	6	1	11	13	14	0	19	22	7	0	7	20	0	0	130
07:30 AM	1	8	4	0	6	12	13	0	19	13	9	0	10	12	0	0	107
07:45 AM	0	10	4	0	5	16	16	0	6	11	5	0	5	22	0	0	100
Total	1	40	16	1	28	58	59	0	58	65	26	0	33	69	0	0	454
08:00 AM	0	11	1	0	9	13	12	0	7	20	6	0	5	19	0	0	103
08:15 AM	0	9	5	0	6	21	14	0	11	12	11	0	12	22	0	0	123
08:30 AM	0	10	1	0	10	12	10	0	13	17	6	0	13	13	0	0	105
08:45 AM	0	12	1	0	9	25	14	0	15	19	3	0	8	28	0	0	134
Total	0	42	8	0	34	71	50	0	46	68	26	0	38	82	0	0	465
Grand Total	1	82	24	1	62	129	109	0	104	133	52	0	71	151	0	0	919
Apprch %	0.9	75.9	22.2	0.9	20.7	43	36.3	0	36	46	18	0	32	68	0	0	
Total %	0.1	8.9	2.6	0.1	6.7	14	11.9	0	11.3	14.5	5.7	0	7.7	16.4	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	11	1	0	12	9	13	12	0	34	7	20	6	0	33	5	19	0	0	24	103
08:15 AM	0	9	5	0	14	6	21	14	0	41	11	12	11	0	34	12	22	0	0	34	123
08:30 AM	0	10	1	0	11	10	12	10	0	32	13	17	6	0	36	13	13	0	0	26	105
08:45 AM	0	12	1	0	13	9	25	14	0	48	15	19	3	0	37	8	28	0	0	36	134
Total Volume	0	42	8	0	50	34	71	50	0	155	46	68	26	0	140	38	82	0	0	120	465
% App. Total	0	84	16	0		21.9	45.8	32.3	0		32.9	48.6	18.6	0		31.7	68.3	0	0		
PHF	.000	.875	.400	.000	.893	.850	.710	.893	.000	.807	.767	.850	.591	.000	.946	.731	.732	.000	.000	.833	.868

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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	94	2	0	0	0	0	0	0	84	7	1	0	0	7	0	198
07:15 AM	0	110	0	0	0	0	0	0	0	121	0	0	0	0	0	0	231
07:30 AM	0	101	1	0	0	0	0	0	0	101	0	0	0	0	0	0	203
07:45 AM	0	94	0	0	0	0	0	0	0	95	0	0	0	0	0	0	189
Total	3	399	3	0	0	0	0	0	0	401	7	1	0	0	7	0	821
08:00 AM	0	114	1	0	0	0	0	0	0	117	0	0	0	0	0	0	232
08:15 AM	0	101	1	0	0	0	0	0	0	97	0	0	0	0	0	0	199
08:30 AM	0	92	0	0	0	0	0	0	0	115	0	0	0	0	0	0	207
08:45 AM	0	111	1	1	0	0	0	0	0	97	0	0	0	0	0	0	210
Total	0	418	3	1	0	0	0	0	0	426	0	0	0	0	0	0	848
Grand Total	3	817	6	1	0	0	0	0	0	827	7	1	0	0	7	0	1669
Apprch %	0.4	98.8	0.7	0.1	0	0	0	0	0	99	0.8	0.1	0	0	100	0	
Total %	0.2	49	0.4	0.1	0	0	0	0	0	49.6	0.4	0.1	0	0	0.4	0	
Cars	3	728	6	1	0	0	0	0	0	737	6	1	0	0	7	0	1489
% Cars	100	89.1	100	100	0	0	0	0	0	89.1	85.7	100	0	0	100	0	89.2
Heavy Vehicles	0	89	0	0	0	0	0	0	0	90	1	0	0	0	0	0	180
% Heavy Vehicles	0	10.9	0	0	0	0	0	0	0	10.9	14.3	0	0	0	0	0	10.8

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	110	0	0	110	0	0	0	0	0	0	121	0	0	121	0	0	0	0	0	231
07:30 AM	0	101	1	0	102	0	0	0	0	0	0	101	0	0	101	0	0	0	0	0	203
07:45 AM	0	94	0	0	94	0	0	0	0	0	0	95	0	0	95	0	0	0	0	0	189
08:00 AM	0	114	1	0	115	0	0	0	0	0	0	117	0	0	117	0	0	0	0	0	232
Total Volume	0	419	2	0	421	0	0	0	0	0	0	434	0	0	434	0	0	0	0	0	855
% App. Total	0	99.5	0.5	0		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.919	.500	.000	.915	.000	.000	.000	.000	.000	.000	.897	.000	.000	.897	.000	.000	.000	.000	.000	.921
Cars	0	372	2	0	374	0	0	0	0	0	0	380	0	0	380	0	0	0	0	0	754
% Cars	0	88.8	100	0	88.8	0	0	0	0	0	0	87.6	0	0	87.6	0	0	0	0	0	88.2
Heavy Vehicles	0	47	0	0	47	0	0	0	0	0	0	54	0	0	54	0	0	0	0	0	101
% Heavy Vehicles	0	11.2	0	0	11.2	0	0	0	0	0	0	12.4	0	0	12.4	0	0	0	0	0	11.8

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Email: datarequests@pdillc.com

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Groups Printed- Cars

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	81	2	0	0	0	0	0	0	71	6	1	0	0	7	0	171
07:15 AM	0	96	0	0	0	0	0	0	0	103	0	0	0	0	0	0	199
07:30 AM	0	94	1	0	0	0	0	0	0	84	0	0	0	0	0	0	179
07:45 AM	0	82	0	0	0	0	0	0	0	86	0	0	0	0	0	0	168
Total	3	353	3	0	0	0	0	0	0	344	6	1	0	0	7	0	717
08:00 AM	0	100	1	0	0	0	0	0	0	107	0	0	0	0	0	0	208
08:15 AM	0	90	1	0	0	0	0	0	0	89	0	0	0	0	0	0	180
08:30 AM	0	82	0	0	0	0	0	0	0	107	0	0	0	0	0	0	189
08:45 AM	0	103	1	1	0	0	0	0	0	90	0	0	0	0	0	0	195
Total	0	375	3	1	0	0	0	0	0	393	0	0	0	0	0	0	772
Grand Total	3	728	6	1	0	0	0	0	0	737	6	1	0	0	7	0	1489
Apprch %	0.4	98.6	0.8	0.1	0	0	0	0	0	99.1	0.8	0.1	0	0	100	0	
Total %	0.2	48.9	0.4	0.1	0	0	0	0	0	49.5	0.4	0.1	0	0	0.5	0	

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	100	1	0	101	0	0	0	0	0	0	107	0	0	107	0	0	0	0	0	208
08:15 AM	0	90	1	0	91	0	0	0	0	0	0	89	0	0	89	0	0	0	0	0	180
08:30 AM	0	82	0	0	82	0	0	0	0	0	0	107	0	0	107	0	0	0	0	0	189
08:45 AM	0	103	1	1	105	0	0	0	0	0	0	90	0	0	90	0	0	0	0	0	195
Total Volume	0	375	3	1	379	0	0	0	0	0	0	393	0	0	393	0	0	0	0	0	772
% App. Total	0	98.9	0.8	0.3		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.910	.750	.250	.902	.000	.000	.000	.000	.000	.000	.918	.000	.000	.918	.000	.000	.000	.000	.000	.928

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Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	13	0	0	0	0	0	0	0	13	1	0	0	0	0	0	27
07:15 AM	0	14	0	0	0	0	0	0	0	18	0	0	0	0	0	0	32
07:30 AM	0	7	0	0	0	0	0	0	0	17	0	0	0	0	0	0	24
07:45 AM	0	12	0	0	0	0	0	0	0	9	0	0	0	0	0	0	21
Total	0	46	0	0	0	0	0	0	0	57	1	0	0	0	0	0	104
08:00 AM	0	14	0	0	0	0	0	0	0	10	0	0	0	0	0	0	24
08:15 AM	0	11	0	0	0	0	0	0	0	8	0	0	0	0	0	0	19
08:30 AM	0	10	0	0	0	0	0	0	0	8	0	0	0	0	0	0	18
08:45 AM	0	8	0	0	0	0	0	0	0	7	0	0	0	0	0	0	15
Total	0	43	0	0	0	0	0	0	0	33	0	0	0	0	0	0	76
Grand Total	0	89	0	0	0	0	0	0	0	90	1	0	0	0	0	0	180
Apprch %	0	100	0	0	0	0	0	0	0	98.9	1.1	0	0	0	0	0	
Total %	0	49.4	0	0	0	0	0	0	0	50	0.6	0	0	0	0	0	

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	13	0	0	13	0	0	0	0	0	0	13	1	0	14	0	0	0	0	0	27
07:15 AM	0	14	0	0	14	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	32
07:30 AM	0	7	0	0	7	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	24
07:45 AM	0	12	0	0	12	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	21
Total Volume	0	46	0	0	46	0	0	0	0	0	0	57	1	0	58	0	0	0	0	0	104
% App. Total	0	100	0	0		0	0	0	0		0	98.3	1.7	0		0	0	0	0		
PHF	.000	.821	.000	.000	.821	.000	.000	.000	.000	.000	.000	.792	.250	.000	.806	.000	.000	.000	.000	.000	.813

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	11	71	11	0	14	11	7	0	101	86	9	0	21	44	9	0	395
07:15 AM	11	89	9	0	24	7	10	0	101	106	11	0	25	57	10	0	460
07:30 AM	10	79	9	0	10	16	5	0	104	92	23	0	34	57	6	0	445
07:45 AM	9	82	14	0	24	17	7	0	121	80	29	0	28	56	7	0	474
Total	41	321	43	0	72	51	29	0	427	364	72	0	108	214	32	0	1774
08:00 AM	18	89	12	0	18	14	16	0	96	93	18	0	35	54	6	0	469
08:15 AM	14	84	13	0	19	15	17	0	115	72	32	0	36	44	6	0	467
08:30 AM	23	62	13	0	20	15	15	0	122	78	27	0	36	29	10	1	451
08:45 AM	23	79	16	0	20	13	14	0	103	76	25	0	35	25	12	0	441
Total	78	314	54	0	77	57	62	0	436	319	102	0	142	152	34	1	1828
Grand Total	119	635	97	0	149	108	91	0	863	683	174	0	250	366	66	1	3602
Apprch %	14	74.6	11.4	0	42.8	31	26.1	0	50.2	39.7	10.1	0	36.6	53.6	9.7	0.1	
Total %	3.3	17.6	2.7	0	4.1	3	2.5	0	24	19	4.8	0	6.9	10.2	1.8	0	
Cars	100	575	82	0	126	91	81	0	809	613	159	0	242	346	64	1	3289
% Cars	84	90.6	84.5	0	84.6	84.3	89	0	93.7	89.8	91.4	0	96.8	94.5	97	100	91.3
Heavy Vehicles	19	60	15	0	23	17	10	0	54	70	15	0	8	20	2	0	313
% Heavy Vehicles	16	9.4	15.5	0	15.4	15.7	11	0	6.3	10.2	8.6	0	3.2	5.5	3	0	8.7

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	9	82	14	0	105	24	17	7	0	48	121	80	29	0	230	28	56	7	0	91	474
08:00 AM	18	89	12	0	119	18	14	16	0	48	96	93	18	0	207	35	54	6	0	95	469
08:15 AM	14	84	13	0	111	19	15	17	0	51	115	72	32	0	219	36	44	6	0	86	467
08:30 AM	23	62	13	0	98	20	15	15	0	50	122	78	27	0	227	36	29	10	1	76	451
Total Volume	64	317	52	0	433	81	61	55	0	197	454	323	106	0	883	135	183	29	1	348	1861
% App. Total	14.8	73.2	12	0		41.1	31	27.9	0		51.4	36.6	12	0		38.8	52.6	8.3	0.3		
PHF	.696	.890	.929	.000	.910	.844	.897	.809	.000	.966	.930	.868	.828	.000	.960	.938	.817	.725	.250	.916	.982
Cars	56	286	42	0	384	73	50	50	0	173	426	291	94	0	811	129	174	29	1	333	1701
% Cars	87.5	90.2	80.8	0	88.7	90.1	82.0	90.9	0	87.8	93.8	90.1	88.7	0	91.8	95.6	95.1	100	100	95.7	91.4
Heavy Vehicles	8	31	10	0	49	8	11	5	0	24	28	32	12	0	72	6	9	0	0	15	160
% Heavy Vehicles	12.5	9.8	19.2	0	11.3	9.9	18.0	9.1	0	12.2	6.2	9.9	11.3	0	8.2	4.4	4.9	0	0	4.3	8.6

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Cars

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	63	9	0	9	10	6	0	91	79	9	0	21	40	8	0	353
07:15 AM	7	82	6	0	18	6	9	0	98	94	8	0	24	55	10	0	417
07:30 AM	9	73	9	0	7	16	3	0	101	79	23	0	33	54	6	0	413
07:45 AM	9	73	11	0	20	13	7	0	116	73	25	0	28	54	7	0	436
Total	33	291	35	0	54	45	25	0	406	325	65	0	106	203	31	0	1619
08:00 AM	14	82	9	0	16	12	16	0	91	85	14	0	33	49	6	0	427
08:15 AM	13	75	12	0	18	14	15	0	106	63	31	0	34	44	6	0	431
08:30 AM	20	56	10	0	19	11	12	0	113	70	24	0	34	27	10	1	407
08:45 AM	20	71	16	0	19	9	13	0	93	70	25	0	35	23	11	0	405
Total	67	284	47	0	72	46	56	0	403	288	94	0	136	143	33	1	1670
Grand Total	100	575	82	0	126	91	81	0	809	613	159	0	242	346	64	1	3289
Apprch %	13.2	76	10.8	0	42.3	30.5	27.2	0	51.2	38.8	10.1	0	37.1	53	9.8	0.2	
Total %	3	17.5	2.5	0	3.8	2.8	2.5	0	24.6	18.6	4.8	0	7.4	10.5	1.9	0	

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	9	73	9	0	91	7	16	3	0	26	101	79	23	0	203	33	54	6	0	93	413
07:45 AM	9	73	11	0	93	20	13	7	0	40	116	73	25	0	214	28	54	7	0	89	436
08:00 AM	14	82	9	0	105	16	12	16	0	44	91	85	14	0	190	33	49	6	0	88	427
08:15 AM	13	75	12	0	100	18	14	15	0	47	106	63	31	0	200	34	44	6	0	84	431
Total Volume	45	303	41	0	389	61	55	41	0	157	414	300	93	0	807	128	201	25	0	354	1707
% App. Total	11.6	77.9	10.5	0		38.9	35	26.1	0		51.3	37.2	11.5	0		36.2	56.8	7.1	0		
PHF	.804	.924	.854	.000	.926	.763	.859	.641	.000	.835	.892	.882	.750	.000	.943	.941	.931	.893	.000	.952	.979

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
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Client: MDM/ C. Jones

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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 M
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	3	8	2	0	5	1	1	0	10	7	0	0	0	4	1	0	42
07:15 AM	4	7	3	0	6	1	1	0	3	12	3	0	1	2	0	0	43
07:30 AM	1	6	0	0	3	0	2	0	3	13	0	0	1	3	0	0	32
07:45 AM	0	9	3	0	4	4	0	0	5	7	4	0	0	2	0	0	38
Total	8	30	8	0	18	6	4	0	21	39	7	0	2	11	1	0	155
08:00 AM	4	7	3	0	2	2	0	0	5	8	4	0	2	5	0	0	42
08:15 AM	1	9	1	0	1	1	2	0	9	9	1	0	2	0	0	0	36
08:30 AM	3	6	3	0	1	4	3	0	9	8	3	0	2	2	0	0	44
08:45 AM	3	8	0	0	1	4	1	0	10	6	0	0	0	2	1	0	36
Total	11	30	7	0	5	11	6	0	33	31	8	0	6	9	1	0	158
Grand Total	19	60	15	0	23	17	10	0	54	70	15	0	8	20	2	0	313
Apprch %	20.2	63.8	16	0	46	34	20	0	38.8	50.4	10.8	0	26.7	66.7	6.7	0	
Total %	6.1	19.2	4.8	0	7.3	5.4	3.2	0	17.3	22.4	4.8	0	2.6	6.4	0.6	0	

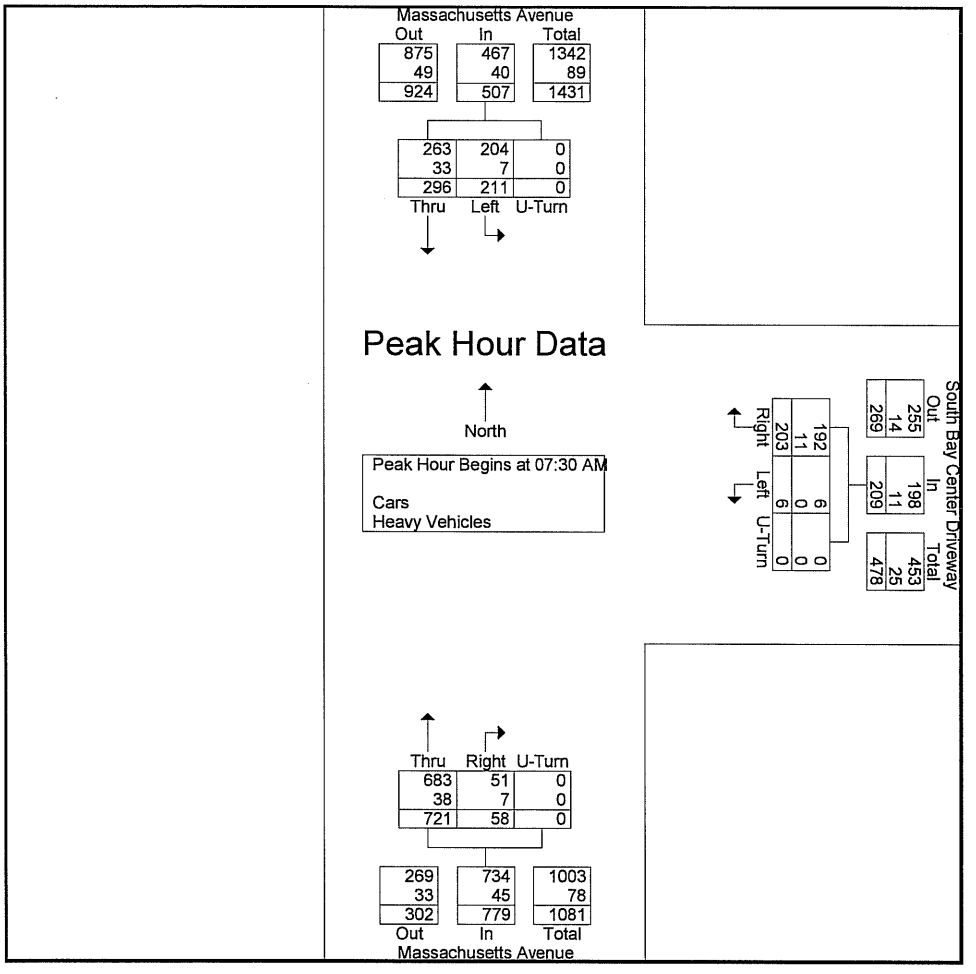
	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	9	3	0	12	4	4	0	0	8	5	7	4	0	16	0	2	0	0	2	38
08:00 AM	4	7	3	0	14	2	2	0	0	4	5	8	4	0	17	2	5	0	0	7	42
08:15 AM	1	9	1	0	11	1	1	2	0	4	9	9	1	0	19	2	0	0	0	2	36
08:30 AM	3	6	3	0	12	1	4	3	0	8	9	8	3	0	20	2	2	0	0	4	44
Total Volume	8	31	10	0	49	8	11	5	0	24	28	32	12	0	72	6	9	0	0	15	160
% App. Total	16.3	63.3	20.4	0		33.3	45.8	20.8	0		38.9	44.4	16.7	0		40	60	0	0		
PHF	.500	.861	.833	.000	.875	.500	.688	.417	.000	.750	.778	.889	.750	.000	.900	.750	.450	.000	.000	.536	.909

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	68	48	0	116	48	2	0	50	20	174	0	194	360
07:45 AM	72	45	0	117	40	0	0	40	13	212	0	225	382
08:00 AM	76	60	0	136	43	2	0	45	15	181	0	196	377
08:15 AM	80	58	0	138	72	2	0	74	10	154	0	164	376
Total Volume	296	211	0	507	203	6	0	209	58	721	0	779	1495
% App. Total	58.4	41.6	0		97.1	2.9	0		7.4	92.6	0		
PHF	.925	.879	.000	.918	.705	.750	.000	.706	.725	.850	.000	.866	.978
Cars	263	204	0	467	192	6	0	198	51	683	0	734	1399
% Cars	88.9	96.7	0	92.1	94.6	100	0	94.7	87.9	94.7	0	94.2	93.6
Heavy Vehicles	33	7	0	40	11	0	0	11	7	38	0	45	96
% Heavy Vehicles	11.1	3.3	0	7.9	5.4	0	0	5.3	12.1	5.3	0	5.8	6.4



N/S: Massachusetts Avenue
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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	65	36	0	29	1	0	12	170	0	313
07:15 AM	83	45	0	31	0	0	9	199	0	367
07:30 AM	68	48	0	48	2	0	20	174	0	360
07:45 AM	72	45	0	40	0	0	13	212	0	382
Total	288	174	0	148	3	0	54	755	0	1422
08:00 AM	76	60	0	43	2	0	15	181	0	377
08:15 AM	80	58	0	72	2	0	10	154	0	376
08:30 AM	73	36	0	55	1	0	10	184	0	359
08:45 AM	66	64	0	41	0	0	11	164	0	346
Total	295	218	0	211	5	0	46	683	0	1458
Grand Total	583	392	0	359	8	0	100	1438	0	2880
Apprch %	59.8	40.2	0	97.8	2.2	0	6.5	93.5	0	
Total %	20.2	13.6	0	12.5	0.3	0	3.5	49.9	0	
Cars	512	381	0	340	8	0	91	1350	0	2682
% Cars	87.8	97.2	0	94.7	100	0	91	93.9	0	93.1
Heavy Vehicles	71	11	0	19	0	0	9	88	0	198
% Heavy Vehicles	12.2	2.8	0	5.3	0	0	9	6.1	0	6.9

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	68	48	0	116	48	2	0	50	20	174	0	194	360
07:45 AM	72	45	0	117	40	0	0	40	13	212	0	225	382
08:00 AM	76	60	0	136	43	2	0	45	15	181	0	196	377
08:15 AM	80	58	0	138	72	2	0	74	10	154	0	164	376
Total Volume	296	211	0	507	203	6	0	209	58	721	0	779	1495
% App. Total	58.4	41.6	0		97.1	2.9	0		7.4	92.6	0		
PHF	.925	.879	.000	.918	.705	.750	.000	.706	.725	.850	.000	.866	.978
Cars	263	204	0	467	192	6	0	198	51	683	0	734	1399
% Cars	88.9	96.7	0	92.1	94.6	100	0	94.7	87.9	94.7	0	94.2	93.6
Heavy Vehicles	33	7	0	40	11	0	0	11	7	38	0	45	96
% Heavy Vehicles	11.1	3.3	0	7.9	5.4	0	0	5.3	12.1	5.3	0	5.8	6.4

N/S: Massachusetts Avenue
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Groups Printed- Cars

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	54	36	0	29	1	0	12	155	0	287
07:15 AM	74	43	0	31	0	0	9	186	0	343
07:30 AM	61	47	0	47	2	0	19	166	0	342
07:45 AM	65	43	0	39	0	0	10	202	0	359
Total	254	169	0	146	3	0	50	709	0	1331
08:00 AM	68	58	0	41	2	0	12	168	0	349
08:15 AM	69	56	0	65	2	0	10	147	0	349
08:30 AM	63	35	0	50	1	0	9	172	0	330
08:45 AM	58	63	0	38	0	0	10	154	0	323
Total	258	212	0	194	5	0	41	641	0	1351
Grand Total	512	381	0	340	8	0	91	1350	0	2682
Apprch %	57.3	42.7	0	97.7	2.3	0	6.3	93.7	0	
Total %	19.1	14.2	0	12.7	0.3	0	3.4	50.3	0	

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	61	47	0	108	47	2	0	49	19	166	0	185	342
07:45 AM	65	43	0	108	39	0	0	39	10	202	0	212	359
08:00 AM	68	58	0	126	41	2	0	43	12	168	0	180	349
08:15 AM	69	56	0	125	65	2	0	67	10	147	0	157	349
Total Volume	263	204	0	467	192	6	0	198	51	683	0	734	1399
% App. Total	56.3	43.7	0		97	3	0		6.9	93.1	0		
PHF	.953	.879	.000	.927	.738	.750	.000	.739	.671	.845	.000	.866	.974

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Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	11	0	0	0	0	0	0	15	0	26
07:15 AM	9	2	0	0	0	0	0	13	0	24
07:30 AM	7	1	0	1	0	0	1	8	0	18
07:45 AM	7	2	0	1	0	0	3	10	0	23
Total	34	5	0	2	0	0	4	46	0	91
08:00 AM	8	2	0	2	0	0	3	13	0	28
08:15 AM	11	2	0	7	0	0	0	7	0	27
08:30 AM	10	1	0	5	0	0	1	12	0	29
08:45 AM	8	1	0	3	0	0	1	10	0	23
Total	37	6	0	17	0	0	5	42	0	107
Grand Total	71	11	0	19	0	0	9	88	0	198
Apprch %	86.6	13.4	0	100	0	0	9.3	90.7	0	
Total %	35.9	5.6	0	9.6	0	0	4.5	44.4	0	

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	7	2	0	9	1	0	0	1	3	10	0	13	23
08:00 AM	8	2	0	10	2	0	0	2	3	13	0	16	28
08:15 AM	11	2	0	13	7	0	0	7	0	7	0	7	27
08:30 AM	10	1	0	11	5	0	0	5	1	12	0	13	29
Total Volume	36	7	0	43	15	0	0	15	7	42	0	49	107
% App. Total	83.7	16.3	0		100	0	0		14.3	85.7	0		
PHF	.818	.875	.000	.827	.536	.000	.000	.536	.583	.808	.000	.766	.922

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 B
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	10	49	6	0	8	11	21	0	35	151	20	0	3	3	13	0	330
07:15 AM	5	75	3	0	16	6	22	0	44	161	16	0	8	3	12	0	371
07:30 AM	2	65	3	0	4	1	18	0	45	158	9	0	11	14	10	0	340
07:45 AM	3	66	3	0	8	6	22	0	60	189	7	0	12	6	21	0	403
Total	20	255	15	0	36	24	83	0	184	659	52	0	34	26	56	0	1444
08:00 AM	4	68	9	0	15	1	31	0	52	157	2	0	9	26	11	0	385
08:15 AM	3	71	8	0	21	4	45	0	63	136	5	0	9	10	10	0	385
08:30 AM	6	65	7	0	13	4	32	0	50	174	2	0	5	3	4	0	365
08:45 AM	2	58	6	0	15	6	33	0	52	149	2	0	6	5	8	0	342
Total	15	262	30	0	64	15	141	0	217	616	11	0	29	44	33	0	1477
Grand Total	35	517	45	0	100	39	224	0	401	1275	63	0	63	70	89	0	2921
Apprch %	5.9	86.6	7.5	0	27.5	10.7	61.7	0	23.1	73.3	3.6	0	28.4	31.5	40.1	0	
Total %	1.2	17.7	1.5	0	3.4	1.3	7.7	0	13.7	43.6	2.2	0	2.2	2.4	3	0	
Cars	28	462	43	0	84	36	214	0	395	1217	60	0	51	52	78	0	2720
% Cars	80	89.4	95.6	0	84	92.3	95.5	0	98.5	95.5	95.2	0	81	74.3	87.6	0	93.1
Heavy Vehicles	7	55	2	0	16	3	10	0	6	58	3	0	12	18	11	0	201
% Heavy Vehicles	20	10.6	4.4	0	16	7.7	4.5	0	1.5	4.5	4.8	0	19	25.7	12.4	0	6.9

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	3	66	3	0	72	8	6	22	0	36	60	189	7	0	256	12	6	21	0	39	403
08:00 AM	4	68	9	0	81	15	1	31	0	47	52	157	2	0	211	9	26	11	0	46	385
08:15 AM	3	71	8	0	82	21	4	45	0	70	63	136	5	0	204	9	10	10	0	29	385
08:30 AM	6	65	7	0	78	13	4	32	0	49	50	174	2	0	226	5	3	4	0	12	365
Total Volume	16	270	27	0	313	57	15	130	0	202	225	656	16	0	897	35	45	46	0	126	1538
% App. Total	5.1	86.3	8.6	0		28.2	7.4	64.4	0		25.1	73.1	1.8	0		27.8	35.7	36.5	0		
PHF	.667	.951	.750	.000	.954	.679	.625	.722	.000	.721	.893	.868	.571	.000	.876	.729	.433	.548	.000	.685	.954
Cars	12	241	26	0	279	50	12	125	0	187	223	625	16	0	864	28	28	37	0	93	1423
% Cars	75.0	89.3	96.3	0	89.1	87.7	80.0	96.2	0	92.6	99.1	95.3	100	0	96.3	80.0	62.2	80.4	0	73.8	92.5
Heavy Vehicles	4	29	1	0	34	7	3	5	0	15	2	31	0	0	33	7	17	9	0	33	115
% Heavy Vehicles	25.0	10.7	3.7	0	10.9	12.3	20.0	3.8	0	7.4	0.9	4.7	0	0	3.7	20.0	37.8	19.6	0	26.2	7.5

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 B
Site Code : 804
Start Date : 11/13/2014
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Groups Printed- Cars

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	44	6	0	7	11	19	0	34	143	20	0	3	2	12	0	309
07:15 AM	5	68	3	0	11	6	21	0	44	155	16	0	8	3	12	0	352
07:30 AM	1	60	3	0	4	1	18	0	44	154	6	0	7	14	10	0	322
07:45 AM	3	61	3	0	8	6	22	0	60	185	7	0	9	6	19	0	389
Total	17	233	15	0	30	24	80	0	182	637	49	0	27	25	53	0	1372
08:00 AM	4	61	8	0	12	0	29	0	51	148	2	0	7	12	7	0	341
08:15 AM	3	59	8	0	19	3	45	0	62	130	5	0	8	7	8	0	357
08:30 AM	2	60	7	0	11	3	29	0	50	162	2	0	4	3	3	0	336
08:45 AM	2	49	5	0	12	6	31	0	50	140	2	0	5	5	7	0	314
Total	11	229	28	0	54	12	134	0	213	580	11	0	24	27	25	0	1348
Grand Total	28	462	43	0	84	36	214	0	395	1217	60	0	51	52	78	0	2720
Apprch %	5.3	86.7	8.1	0	25.1	10.8	64.1	0	23.6	72.8	3.6	0	28.2	28.7	43.1	0	
Total %	1	17	1.6	0	3.1	1.3	7.9	0	14.5	44.7	2.2	0	1.9	1.9	2.9	0	

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	3	61	3	0	67	8	6	22	0	36	60	185	7	0	252	9	6	19	0	34	389
08:00 AM	4	61	8	0	73	12	0	29	0	41	51	148	2	0	201	7	12	7	0	26	341
08:15 AM	3	59	8	0	70	19	3	45	0	67	62	130	5	0	197	8	7	8	0	23	357
08:30 AM	2	60	7	0	69	11	3	29	0	43	50	162	2	0	214	4	3	3	0	10	336
Total Volume	12	241	26	0	279	50	12	125	0	187	223	625	16	0	864	28	28	37	0	93	1423
% App. Total	4.3	86.4	9.3	0		26.7	6.4	66.8	0		25.8	72.3	1.9	0		30.1	30.1	39.8	0		
PHF	.750	.988	.813	.000	.955	.658	.500	.694	.000	.698	.899	.845	.571	.000	.857	.778	.583	.487	.000	.684	.915

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 B
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	5	0	0	1	0	2	0	1	8	0	0	0	1	1	0	21
07:15 AM	0	7	0	0	5	0	1	0	0	6	0	0	0	0	0	0	19
07:30 AM	1	5	0	0	0	0	0	0	1	4	3	0	4	0	0	0	18
07:45 AM	0	5	0	0	0	0	0	0	0	4	0	0	3	0	2	0	14
Total	3	22	0	0	6	0	3	0	2	22	3	0	7	1	3	0	72
08:00 AM	0	7	1	0	3	1	2	0	1	9	0	0	2	14	4	0	44
08:15 AM	0	12	0	0	2	1	0	0	1	6	0	0	1	3	2	0	28
08:30 AM	4	5	0	0	2	1	3	0	0	12	0	0	1	0	1	0	29
08:45 AM	0	9	1	0	3	0	2	0	2	9	0	0	1	0	1	0	28
Total	4	33	2	0	10	3	7	0	4	36	0	0	5	17	8	0	129
Grand Total	7	55	2	0	16	3	10	0	6	58	3	0	12	18	11	0	201
Apprch %	10.9	85.9	3.1	0	55.2	10.3	34.5	0	9	86.6	4.5	0	29.3	43.9	26.8	0	
Total %	3.5	27.4	1	0	8	1.5	5	0	3	28.9	1.5	0	6	9	5.5	0	

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	7	1	0	8	3	1	2	0	6	1	9	0	0	10	2	14	4	0	20	44
08:15 AM	0	12	0	0	12	2	1	0	0	3	1	6	0	0	7	1	3	2	0	6	28
08:30 AM	4	5	0	0	9	2	1	3	0	6	0	12	0	0	12	1	0	1	0	2	29
08:45 AM	0	9	1	0	10	3	0	2	0	5	2	9	0	0	11	1	0	1	0	2	28
Total Volume	4	33	2	0	39	10	3	7	0	20	4	36	0	0	40	5	17	8	0	30	129
% App. Total	10.3	84.6	5.1	0		50	15	35	0		10	90	0	0		16.7	56.7	26.7	0		
PHF	.250	.688	.500	.000	.813	.833	.750	.583	.000	.833	.500	.750	.000	.000	.833	.625	.304	.500	.000	.375	.733

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 I
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	23	0	0	0	0	9	0	7	28	0	0	67
07:15 AM	0	0	0	0	0	21	0	0	0	0	12	0	8	29	0	0	70
07:30 AM	0	0	0	0	0	20	0	0	0	0	3	0	17	46	0	0	86
07:45 AM	0	0	0	0	0	24	0	0	0	0	5	0	10	40	0	0	79
Total	0	0	0	0	0	88	0	0	0	0	29	0	42	143	0	0	302
08:00 AM	0	0	0	0	0	25	0	0	0	0	10	0	14	38	0	0	87
08:15 AM	0	0	0	0	0	40	0	0	0	0	16	0	18	39	0	0	113
08:30 AM	0	0	0	0	0	22	0	0	1	0	15	0	10	41	0	0	89
08:45 AM	0	0	0	0	0	41	1	0	0	0	11	0	17	37	0	0	107
Total	0	0	0	0	0	128	1	0	1	0	52	0	59	155	0	0	396
Grand Total	0	0	0	0	0	216	1	0	1	0	81	0	101	298	0	0	698
Apprch %	0	0	0	0	0	99.5	0.5	0	1.2	0	98.8	0	25.3	74.7	0	0	
Total %	0	0	0	0	0	30.9	0.1	0	0.1	0	11.6	0	14.5	42.7	0	0	
Cars	0	0	0	0	0	199	1	0	1	0	77	0	100	281	0	0	659
% Cars	0	0	0	0	0	92.1	100	0	100	0	95.1	0	99	94.3	0	0	94.4
Heavy Vehicles	0	0	0	0	0	17	0	0	0	0	4	0	1	17	0	0	39
% Heavy Vehicles	0	0	0	0	0	7.9	0	0	0	0	4.9	0	1	5.7	0	0	5.6

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	25	0	0	25	0	0	10	0	10	14	38	0	0	52	87
08:15 AM	0	0	0	0	0	0	40	0	0	40	0	0	16	0	16	18	39	0	0	57	113
08:30 AM	0	0	0	0	0	0	22	0	0	22	1	0	15	0	16	10	41	0	0	51	89
08:45 AM	0	0	0	0	0	0	41	1	0	42	0	0	11	0	11	17	37	0	0	54	107
Total Volume	0	0	0	0	0	0	128	1	0	129	1	0	52	0	53	59	155	0	0	214	396
% App. Total	0	0	0	0		0	99.2	0.8	0		1.9	0	98.1	0		27.6	72.4	0	0		
PHF	.000	.000	.000	.000	.000	.000	.780	.250	.000	.768	.250	.000	.813	.000	.828	.819	.945	.000	.000	.939	.876
Cars	0	0	0	0	0	0	113	1	0	114	1	0	52	0	53	58	147	0	0	205	372
% Cars	0	0	0	0	0	0	88.3	100	0	88.4	100	0	100	0	100	98.3	94.8	0	0	95.8	93.9
Heavy Vehicles	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	1	8	0	0	9	24
% Heavy Vehicles	0	0	0	0	0	0	11.7	0	0	11.6	0	0	0	0	0	1.7	5.2	0	0	4.2	6.1

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Cars

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	21	0	0	0	0	8	0	7	27	0	0	63
07:15 AM	0	0	0	0	0	21	0	0	0	0	9	0	8	29	0	0	67
07:30 AM	0	0	0	0	0	20	0	0	0	0	3	0	17	41	0	0	81
07:45 AM	0	0	0	0	0	24	0	0	0	0	5	0	10	37	0	0	76
Total	0	0	0	0	0	86	0	0	0	0	25	0	42	134	0	0	287
08:00 AM	0	0	0	0	0	21	0	0	0	0	10	0	14	35	0	0	80
08:15 AM	0	0	0	0	0	38	0	0	0	0	16	0	18	38	0	0	110
08:30 AM	0	0	0	0	0	17	0	0	1	0	15	0	10	40	0	0	83
08:45 AM	0	0	0	0	0	37	1	0	0	0	11	0	16	34	0	0	99
Total	0	0	0	0	0	113	1	0	1	0	52	0	58	147	0	0	372
Grand Total	0	0	0	0	0	199	1	0	1	0	77	0	100	281	0	0	659
Apprch %	0	0	0	0	0	99.5	0.5	0	1.3	0	98.7	0	26.2	73.8	0	0	
Total %	0	0	0	0	0	30.2	0.2	0	0.2	0	11.7	0	15.2	42.6	0	0	

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	21	0	0	21	0	0	10	0	10	14	35	0	0	49	80
08:15 AM	0	0	0	0	0	0	38	0	0	38	0	0	16	0	16	18	38	0	0	56	110
08:30 AM	0	0	0	0	0	0	17	0	0	17	1	0	15	0	16	10	40	0	0	50	83
08:45 AM	0	0	0	0	0	0	37	1	0	38	0	0	11	0	11	16	34	0	0	50	99
Total Volume	0	0	0	0	0	0	113	1	0	114	1	0	52	0	53	58	147	0	0	205	372
% App. Total	0	0	0	0		0	99.1	0.9	0		1.9	0	98.1	0		28.3	71.7	0	0		
PHF	.000	.000	.000	.000	.000	.000	.743	.250	.000	.750	.250	.000	.813	.000	.828	.806	.919	.000	.000	.915	.845

S: Plaza Drive
E/W: Allstate Road
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Groups Printed- Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
Total	0	0	0	0	0	2	0	0	0	0	4	0	0	9	0	0	15
08:00 AM	0	0	0	0	0	4	0	0	0	0	0	0	0	3	0	0	7
08:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	3
08:30 AM	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0	0	6
08:45 AM	0	0	0	0	0	4	0	0	0	0	0	0	1	3	0	0	8
Total	0	0	0	0	0	15	0	0	0	0	0	0	1	8	0	0	24
Grand Total	0	0	0	0	0	17	0	0	0	0	4	0	1	17	0	0	39
Apprch %	0	0	0	0	0	100	0	0	0	0	100	0	5.6	94.4	0	0	
Total %	0	0	0	0	0	43.6	0	0	0	0	10.3	0	2.6	43.6	0	0	

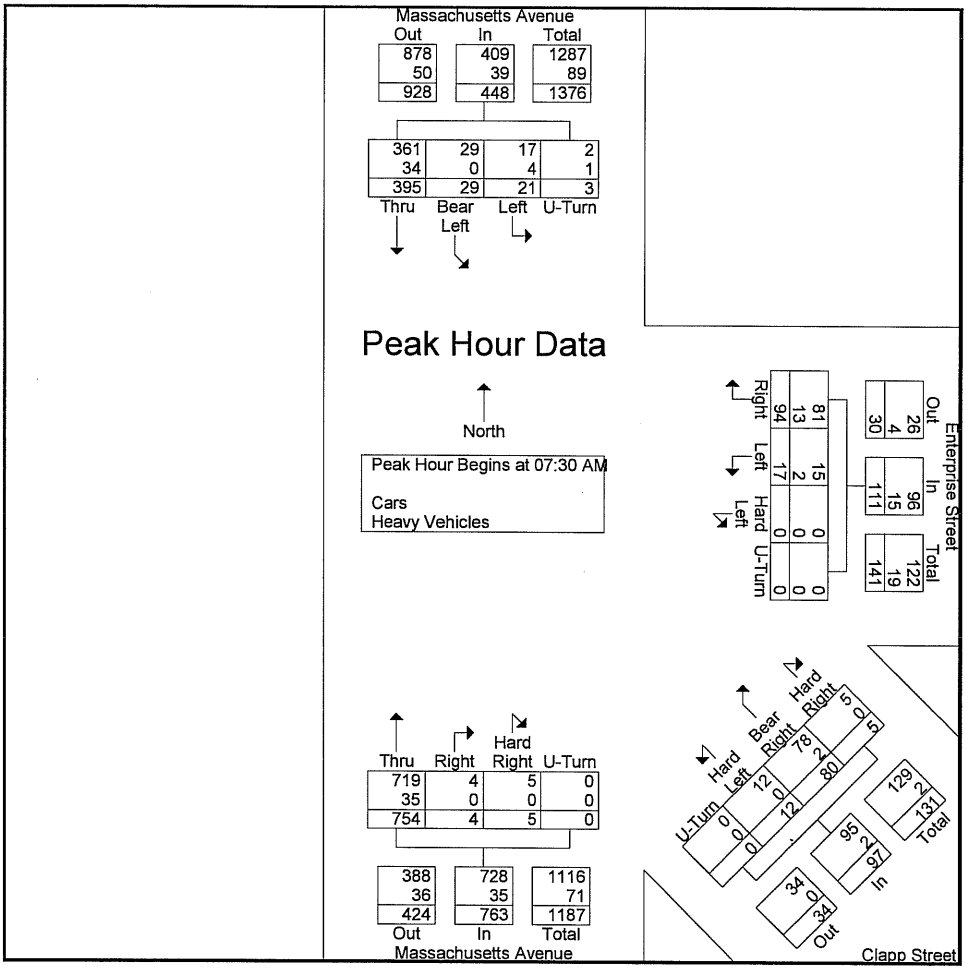
	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
08:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	8
Total Volume	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	1	8	0	0	9	24
% App. Total	0	0	0	0		0	100	0	0		0	0	0	0		11.1	88.9	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.000	.000	.000	.000	.000	.250	.667	.000	.000	.563	.750

N/S: Massachusetts Avenue
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PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	91	7	4	0	102	36	4	0	0	40	3	21	2	0	26	3	0	190	0	193	361
07:45 AM	101	13	2	1	117	20	5	0	0	25	1	32	7	0	40	0	1	202	0	203	385
08:00 AM	96	4	6	1	107	17	5	0	0	22	0	20	2	0	22	0	0	186	0	186	337
08:15 AM	107	5	9	1	122	21	3	0	0	24	1	7	1	0	9	2	3	176	0	181	336
Total Volume	395	29	21	3	448	94	17	0	0	111	5	80	12	0	97	5	4	754	0	763	1419
% App. Total	88.2	6.5	4.7	0.7		84.7	15.3	0	0		5.2	82.5	12.4	0		0.7	0.5	98.8	0		
PHF	.923	.558	.583	.750	.918	.653	.850	.000	.000	.694	.417	.625	.429	.000	.606	.417	.333	.933	.000	.940	.921
Cars	361	29	17	2	409	81	15	0	0	96	5	78	12	0	95	5	4	719	0	728	1328
% Cars	91.4	100	81.0	66.7	91.3	86.2	88.2	0	0	86.5	100	97.5	100	0	97.9	100	100	95.4	0	95.4	93.6
Heavy Vehicles	34	0	4	1	39	13	2	0	0	15	0	2	0	0	2	0	0	35	0	35	91
% Heavy Vehicles	8.6	0	19.0	33.3	8.7	13.8	11.8	0	0	13.5	0	2.5	0	0	2.1	0	0	4.6	0	4.6	6.4



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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
07:00 AM	57	7	2	0	27	1	0	0	0	12	1	0	0	0	215	0	322
07:15 AM	82	6	2	0	14	1	1	0	0	12	0	0	1	0	215	0	334
07:30 AM	91	7	4	0	36	4	0	0	3	21	2	0	3	0	190	0	361
07:45 AM	101	13	2	1	20	5	0	0	1	32	7	0	0	1	202	0	385
Total	331	33	10	1	97	11	1	0	4	77	10	0	4	1	822	0	1402
08:00 AM	96	4	6	1	17	5	0	0	0	20	2	0	0	0	186	0	337
08:15 AM	107	5	9	1	21	3	0	0	1	7	1	0	2	3	176	0	336
08:30 AM	95	13	11	0	24	6	0	0	0	12	1	0	1	0	188	0	351
08:45 AM	99	4	3	0	15	7	0	0	0	12	2	0	0	0	159	0	301
Total	397	26	29	2	77	21	0	0	1	51	6	0	3	3	709	0	1325
Grand Total	728	59	39	3	174	32	1	0	5	128	16	0	7	4	1531	0	2727
Apprch %	87.8	7.1	4.7	0.4	84.1	15.5	0.5	0	3.4	85.9	10.7	0	0.5	0.3	99.3	0	
Total %	26.7	2.2	1.4	0.1	6.4	1.2	0	0	0.2	4.7	0.6	0	0.3	0.1	56.1	0	
Cars	667	57	32	2	145	29	1	0	5	125	16	0	7	4	1458	0	2548
% Cars	91.6	96.6	82.1	66.7	83.3	90.6	100	0	100	97.7	100	0	100	100	95.2	0	93.4
Heavy Vehicles	61	2	7	1	29	3	0	0	0	3	0	0	0	0	73	0	179
% Heavy Vehicles	8.4	3.4	17.9	33.3	16.7	9.4	0	0	0	2.3	0	0	0	0	4.8	0	6.6

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	91	7	4	0	102	36	4	0	0	40	3	21	2	0	26	3	0	190	0	193	361
07:45 AM	101	13	2	1	117	20	5	0	0	25	1	32	7	0	40	0	1	202	0	203	385
08:00 AM	96	4	6	1	107	17	5	0	0	22	0	20	2	0	22	0	0	186	0	186	337
08:15 AM	107	5	9	1	122	21	3	0	0	24	1	7	1	0	9	2	3	176	0	181	336
Total Volume	395	29	21	3	448	94	17	0	0	111	5	80	12	0	97	5	4	754	0	763	1419
% App. Total	88.2	6.5	4.7	0.7		84.7	15.3	0	0		5.2	82.5	12.4	0		0.7	0.5	98.8	0		
PHF	.923	.558	.583	.750	.918	.653	.850	.000	.000	.694	.417	.625	.429	.000	.606	.417	.333	.933	.000	.940	.921
Cars	361	29	17	2	409	81	15	0	0	96	5	78	12	0	95	5	4	719	0	728	1328
% Cars	91.4	100	81.0	66.7	91.3	86.2	88.2	0	0	86.5	100	97.5	100	0	97.9	100	100	95.4	0	95.4	93.6
Heavy Vehicles	34	0	4	1	39	13	2	0	0	15	0	2	0	0	2	0	0	35	0	35	91
% Heavy Vehicles	8.6	0	19.0	33.3	8.7	13.8	11.8	0	0	13.5	0	2.5	0	0	2.1	0	0	4.6	0	4.6	6.4

N/S: Massachusetts Avenue
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Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 O
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
07:00 AM	55	7	1	0	21	1	0	0	0	12	1	0	0	0	205	0	303
07:15 AM	78	6	2	0	13	1	1	0	0	11	0	0	1	0	203	0	316
07:30 AM	85	7	4	0	31	3	0	0	3	21	2	0	3	0	179	0	338
07:45 AM	95	13	2	1	17	4	0	0	1	31	7	0	0	1	195	0	367
Total	313	33	9	1	82	9	1	0	4	75	10	0	4	1	782	0	1324
08:00 AM	85	4	5	1	14	5	0	0	0	19	2	0	0	0	177	0	312
08:15 AM	96	5	6	0	19	3	0	0	1	7	1	0	2	3	168	0	311
08:30 AM	84	11	9	0	19	5	0	0	0	12	1	0	1	0	182	0	324
08:45 AM	89	4	3	0	11	7	0	0	0	12	2	0	0	0	149	0	277
Total	354	24	23	1	63	20	0	0	1	50	6	0	3	3	676	0	1224
Grand Total	667	57	32	2	145	29	1	0	5	125	16	0	7	4	1458	0	2548
Apprch %	88	7.5	4.2	0.3	82.9	16.6	0.6	0	3.4	85.6	11	0	0.5	0.3	99.3	0	
Total %	26.2	2.2	1.3	0.1	5.7	1.1	0	0	0.2	4.9	0.6	0	0.3	0.2	57.2	0	

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	78	6	2	0	86	13	1	1	0	15	0	11	0	0	11	1	0	203	0	204	316
07:30 AM	85	7	4	0	96	31	3	0	0	34	3	21	2	0	26	3	0	179	0	182	338
07:45 AM	95	13	2	1	111	17	4	0	0	21	1	31	7	0	39	0	1	195	0	196	367
08:00 AM	85	4	5	1	95	14	5	0	0	19	0	19	2	0	21	0	0	177	0	177	312
Total Volume	343	30	13	2	388	75	13	1	0	89	4	82	11	0	97	4	1	754	0	759	1333
% App. Total	88.4	7.7	3.4	0.5		84.3	14.6	1.1	0		4.1	84.5	11.3	0		0.5	0.1	99.3	0		
PHF	.903	.577	.650	.500	.874	.605	.650	.250	.000	.654	.333	.661	.393	.000	.622	.333	.250	.929	.000	.930	.908

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PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
07:00 AM	2	0	1	0	6	0	0	0	0	0	0	0	0	0	10	0	19
07:15 AM	4	0	0	0	1	0	0	0	0	1	0	0	0	0	12	0	18
07:30 AM	6	0	0	0	5	1	0	0	0	0	0	0	0	0	11	0	23
07:45 AM	6	0	0	0	3	1	0	0	0	1	0	0	0	0	7	0	18
Total	18	0	1	0	15	2	0	0	0	2	0	0	0	0	40	0	78
08:00 AM	11	0	1	0	3	0	0	0	0	1	0	0	0	0	9	0	25
08:15 AM	11	0	3	1	2	0	0	0	0	0	0	0	0	0	8	0	25
08:30 AM	11	2	2	0	5	1	0	0	0	0	0	0	0	0	6	0	27
08:45 AM	10	0	0	0	4	0	0	0	0	0	0	0	0	0	10	0	24
Total	43	2	6	1	14	1	0	0	0	1	0	0	0	0	33	0	101
Grand Total	61	2	7	1	29	3	0	0	0	3	0	0	0	0	73	0	179
Apprch %	85.9	2.8	9.9	1.4	90.6	9.4	0	0	0	100	0	0	0	0	100	0	
Total %	34.1	1.1	3.9	0.6	16.2	1.7	0	0	0	1.7	0	0	0	0	40.8	0	

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	11	0	1	0	12	3	0	0	0	3	0	1	0	0	1	0	0	9	0	9	25
08:15 AM	11	0	3	1	15	2	0	0	0	2	0	0	0	0	0	0	0	8	0	8	25
08:30 AM	11	2	2	0	15	5	1	0	0	6	0	0	0	0	0	0	0	6	0	6	27
08:45 AM	10	0	0	0	10	4	0	0	0	4	0	0	0	0	0	0	0	10	0	10	24
Total Volume	43	2	6	1	52	14	1	0	0	15	0	1	0	0	1	0	0	33	0	33	101
% App. Total	82.7	3.8	11.5	1.9		93.3	6.7	0	0		0	100	0	0		0	0	100	0		
PHF	.977	.250	.500	.250	.867	.700	.250	.000	.000	.625	.000	.250	.000	.000	.250	.000	.000	.825	.000	.825	.935

N/S: Massachusetts Ave/Columbia Road
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PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	24	31	2	0	1	73	11	0	35	72	77	1	68	134	96	1	626
07:15 AM	32	48	7	0	1	57	10	0	45	90	79	0	105	125	108	1	708
07:30 AM	30	41	0	0	3	76	7	0	54	61	83	1	83	145	100	1	685
07:45 AM	37	41	4	0	0	70	23	0	44	88	106	5	92	133	97	3	743
Total	123	161	13	0	5	276	51	0	178	311	345	7	348	537	401	6	2762
08:00 AM	37	49	4	0	2	49	14	0	42	56	70	1	127	139	57	0	647
08:15 AM	36	53	0	0	1	74	8	0	29	66	68	3	96	119	103	2	658
08:30 AM	42	57	3	0	4	58	13	0	26	80	93	3	81	110	116	4	690
08:45 AM	44	45	2	0	5	95	14	0	24	89	73	0	93	99	84	0	667
Total	159	204	9	0	12	276	49	0	121	291	304	7	397	467	360	6	2662
Grand Total	282	365	22	0	17	552	100	0	299	602	649	14	745	1004	761	12	5424
Apprch %	42.2	54.6	3.3	0	2.5	82.5	14.9	0	19.1	38.5	41.5	0.9	29.5	39.8	30.2	0.5	
Total %	5.2	6.7	0.4	0	0.3	10.2	1.8	0	5.5	11.1	12	0.3	13.7	18.5	14	0.2	
Cars	261	329	16	0	16	486	95	0	285	569	595	14	701	929	735	11	5042
% Cars	92.6	90.1	72.7	0	94.1	88	95	0	95.3	94.5	91.7	100	94.1	92.5	96.6	91.7	93
Heavy Vehicles	21	36	6	0	1	66	5	0	14	33	54	0	44	75	26	1	382
% Heavy Vehicles	7.4	9.9	27.3	0	5.9	12	5	0	4.7	5.5	8.3	0	5.9	7.5	3.4	8.3	7

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	32	48	7	0	87	1	57	10	0	68	45	90	79	0	214	105	125	108	1	339	708
07:30 AM	30	41	0	0	71	3	76	7	0	86	54	61	83	1	199	83	145	100	1	329	685
07:45 AM	37	41	4	0	82	0	70	23	0	93	44	88	106	5	243	92	133	97	3	325	743
08:00 AM	37	49	4	0	90	2	49	14	0	65	42	56	70	1	169	127	139	57	0	323	647
Total Volume	136	179	15	0	330	6	252	54	0	312	185	295	338	7	825	407	542	362	5	1316	2783
% App. Total	41.2	54.2	4.5	0		1.9	80.8	17.3	0		22.4	35.8	41	0.8		30.9	41.2	27.5	0.4		
PHF	.919	.913	.536	.000	.917	.500	.829	.587	.000	.839	.856	.819	.797	.350	.849	.801	.934	.838	.417	.971	.936
Cars	122	163	11	0	296	6	221	52	0	279	177	277	312	7	773	383	509	356	4	1252	2600
% Cars	89.7	91.1	73.3	0	89.7	100	87.7	96.3	0	89.4	95.7	93.9	92.3	100	93.7	94.1	93.9	98.3	80.0	95.1	93.4
Heavy Vehicles	14	16	4	0	34	0	31	2	0	33	8	18	26	0	52	24	33	6	1	64	183
% Heavy Vehicles	10.3	8.9	26.7	0	10.3	0	12.3	3.7	0	10.6	4.3	6.1	7.7	0	6.3	5.9	6.1	1.7	20.0	4.9	6.6

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 A
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	22	26	2	0	1	69	10	0	35	66	72	1	60	121	93	1	579
07:15 AM	27	45	4	0	1	53	10	0	43	81	73	0	103	119	107	1	667
07:30 AM	28	37	0	0	3	60	7	0	52	57	76	1	81	136	98	1	637
07:45 AM	35	34	3	0	0	63	22	0	42	87	99	5	83	129	95	2	699
Total	112	142	9	0	5	245	49	0	172	291	320	7	327	505	393	5	2582
08:00 AM	32	47	4	0	2	45	13	0	40	52	64	1	116	125	56	0	597
08:15 AM	35	44	0	0	1	63	8	0	25	65	62	3	93	111	99	2	611
08:30 AM	40	53	2	0	3	52	11	0	26	76	82	3	74	102	111	4	639
08:45 AM	42	43	1	0	5	81	14	0	22	85	67	0	91	86	76	0	613
Total	149	187	7	0	11	241	46	0	113	278	275	7	374	424	342	6	2460
Grand Total	261	329	16	0	16	486	95	0	285	569	595	14	701	929	735	11	5042
Apprch %	43.1	54.3	2.6	0	2.7	81.4	15.9	0	19.5	38.9	40.7	1	29.5	39.1	30.9	0.5	
Total %	5.2	6.5	0.3	0	0.3	9.6	1.9	0	5.7	11.3	11.8	0.3	13.9	18.4	14.6	0.2	

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	27	45	4	0	76	1	53	10	0	64	43	81	73	0	197	103	119	107	1	330	667
07:30 AM	28	37	0	0	65	3	60	7	0	70	52	57	76	1	186	81	136	98	1	316	637
07:45 AM	35	34	3	0	72	0	63	22	0	85	42	87	99	5	233	83	129	95	2	309	699
08:00 AM	32	47	4	0	83	2	45	13	0	60	40	52	64	1	157	116	125	56	0	297	597
Total Volume	122	163	11	0	296	6	221	52	0	279	177	277	312	7	773	383	509	356	4	1252	2600
% App. Total	41.2	55.1	3.7	0		2.2	79.2	18.6	0		22.9	35.8	40.4	0.9		30.6	40.7	28.4	0.3		
PHF	.871	.867	.688	.000	.892	.500	.877	.591	.000	.821	.851	.796	.788	.350	.829	.825	.936	.832	.500	.948	.930

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File Name : 144163 A
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	5	0	0	0	4	1	0	0	6	5	0	8	13	3	0	47
07:15 AM	5	3	3	0	0	4	0	0	2	9	6	0	2	6	1	0	41
07:30 AM	2	4	0	0	0	16	0	0	2	4	7	0	2	9	2	0	48
07:45 AM	2	7	1	0	0	7	1	0	2	1	7	0	9	4	2	1	44
Total	11	19	4	0	0	31	2	0	6	20	25	0	21	32	8	1	180
08:00 AM	5	2	0	0	0	4	1	0	2	4	6	0	11	14	1	0	50
08:15 AM	1	9	0	0	0	11	0	0	4	1	6	0	3	8	4	0	47
08:30 AM	2	4	1	0	1	6	2	0	0	4	11	0	7	8	5	0	51
08:45 AM	2	2	1	0	0	14	0	0	2	4	6	0	2	13	8	0	54
Total	10	17	2	0	1	35	3	0	8	13	29	0	23	43	18	0	202
Grand Total	21	36	6	0	1	66	5	0	14	33	54	0	44	75	26	1	382
Apprch %	33.3	57.1	9.5	0	1.4	91.7	6.9	0	13.9	32.7	53.5	0	30.1	51.4	17.8	0.7	
Total %	5.5	9.4	1.6	0	0.3	17.3	1.3	0	3.7	8.6	14.1	0	11.5	19.6	6.8	0.3	

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	5	2	0	0	7	0	4	1	0	5	2	4	6	0	12	11	14	1	0	26	50
08:15 AM	1	9	0	0	10	0	11	0	0	11	4	1	6	0	11	3	8	4	0	15	47
08:30 AM	2	4	1	0	7	1	6	2	0	9	0	4	11	0	15	7	8	5	0	20	51
08:45 AM	2	2	1	0	5	0	14	0	0	14	2	4	6	0	12	2	13	8	0	23	54
Total Volume	10	17	2	0	29	1	35	3	0	39	8	13	29	0	50	23	43	18	0	84	202
% App. Total	34.5	58.6	6.9	0		2.6	89.7	7.7	0		16	26	58	0		27.4	51.2	21.4	0		
PHF	.500	.472	.500	.000	.725	.250	.625	.375	.000	.696	.500	.813	.659	.000	.833	.523	.768	.563	.000	.808	.935

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 H
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	6	32	27	0	26	88	41	0	89	51	10	0	4	112	12	0	498
07:15 AM	18	22	30	0	38	99	45	0	97	49	15	0	11	102	13	0	539
07:30 AM	15	27	37	0	34	102	43	0	100	52	17	0	18	91	11	0	547
07:45 AM	11	42	36	0	36	91	28	0	101	40	11	0	8	114	11	0	529
Total	50	123	130	0	134	380	157	0	387	192	53	0	41	419	47	0	2113
08:00 AM	9	43	23	0	16	59	43	1	120	43	7	0	10	102	7	0	483
08:15 AM	5	33	29	0	24	80	42	0	89	46	12	0	14	116	15	0	505
08:30 AM	8	42	28	0	18	64	40	0	102	59	2	0	3	110	16	0	492
08:45 AM	9	27	34	0	26	86	48	0	88	57	9	0	7	99	13	0	503
Total	31	145	114	0	84	289	173	1	399	205	30	0	34	427	51	0	1983
Grand Total	81	268	244	0	218	669	330	1	786	397	83	0	75	846	98	0	4096
Apprch %	13.7	45.2	41.1	0	17.9	54.9	27.1	0.1	62.1	31.4	6.6	0	7.4	83	9.6	0	
Total %	2	6.5	6	0	5.3	16.3	8.1	0	19.2	9.7	2	0	1.8	20.7	2.4	0	
Cars	75	225	231	0	203	607	278	1	745	335	70	0	66	793	89	0	3718
% Cars	92.6	84	94.7	0	93.1	90.7	84.2	100	94.8	84.4	84.3	0	88	93.7	90.8	0	90.8
Heavy Vehicles	6	43	13	0	15	62	52	0	41	62	13	0	9	53	9	0	378
% Heavy Vehicles	7.4	16	5.3	0	6.9	9.3	15.8	0	5.2	15.6	15.7	0	12	6.3	9.2	0	9.2

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	6	32	27	0	65	26	88	41	0	155	89	51	10	0	150	4	112	12	0	128	498
07:15 AM	18	22	30	0	70	38	99	45	0	182	97	49	15	0	161	11	102	13	0	126	539
07:30 AM	15	27	37	0	79	34	102	43	0	179	100	52	17	0	169	18	91	11	0	120	547
07:45 AM	11	42	36	0	89	36	91	28	0	155	101	40	11	0	152	8	114	11	0	133	529
Total Volume	50	123	130	0	303	134	380	157	0	671	387	192	53	0	632	41	419	47	0	507	2113
% App. Total	16.5	40.6	42.9	0		20	56.6	23.4	0		61.2	30.4	8.4	0		8.1	82.6	9.3	0		
PHF	.694	.732	.878	.000	.851	.882	.931	.872	.000	.922	.958	.923	.779	.000	.935	.569	.919	.904	.000	.953	.966
Cars	48	105	123	0	276	128	342	138	0	608	368	158	47	0	573	36	390	42	0	468	1925
% Cars	96.0	85.4	94.6	0	91.1	95.5	90.0	87.9	0	90.6	95.1	82.3	88.7	0	90.7	87.8	93.1	89.4	0	92.3	91.1
Heavy Vehicles	2	18	7	0	27	6	38	19	0	63	19	34	6	0	59	5	29	5	0	39	188
% Heavy Vehicles	4.0	14.6	5.4	0	8.9	4.5	10.0	12.1	0	9.4	4.9	17.7	11.3	0	9.3	12.2	6.9	10.6	0	7.7	8.9

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 H
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	6	25	23	0	23	76	39	0	77	43	7	0	2	99	10	0	430
07:15 AM	18	21	30	0	37	86	38	0	93	39	12	0	9	99	13	0	495
07:30 AM	15	23	36	0	33	94	37	0	98	42	17	0	18	87	10	0	510
07:45 AM	9	36	34	0	35	86	24	0	100	34	11	0	7	105	9	0	490
Total	48	105	123	0	128	342	138	0	368	158	47	0	36	390	42	0	1925
08:00 AM	8	36	22	0	15	54	36	1	114	32	7	0	8	95	7	0	435
08:15 AM	5	28	28	0	21	73	37	0	80	41	8	0	12	107	13	0	453
08:30 AM	6	34	28	0	17	56	29	0	98	53	2	0	3	105	14	0	445
08:45 AM	8	22	30	0	22	82	38	0	85	51	6	0	7	96	13	0	460
Total	27	120	108	0	75	265	140	1	377	177	23	0	30	403	47	0	1793
Grand Total	75	225	231	0	203	607	278	1	745	335	70	0	66	793	89	0	3718
Apprch %	14.1	42.4	43.5	0	18.6	55.7	25.5	0.1	64.8	29.1	6.1	0	7	83.6	9.4	0	
Total %	2	6.1	6.2	0	5.5	16.3	7.5	0	20	9	1.9	0	1.8	21.3	2.4	0	

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	18	21	30	0	69	37	86	38	0	161	93	39	12	0	144	9	99	13	0	121	495
07:30 AM	15	23	36	0	74	33	94	37	0	164	98	42	17	0	157	18	87	10	0	115	510
07:45 AM	9	36	34	0	79	35	86	24	0	145	100	34	11	0	145	7	105	9	0	121	490
08:00 AM	8	36	22	0	66	15	54	36	1	106	114	32	7	0	153	8	95	7	0	110	435
Total Volume	50	116	122	0	288	120	320	135	1	576	405	147	47	0	599	42	386	39	0	467	1930
% App. Total	17.4	40.3	42.4	0		20.8	55.6	23.4	0.2		67.6	24.5	7.8	0		9	82.7	8.4	0		
PHF	.694	.806	.847	.000	.911	.811	.851	.888	.250	.878	.888	.875	.691	.000	.954	.583	.919	.750	.000	.965	.946

N/S: Dorchester Avenue
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File Name : 144163 H
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Groups Printed- Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	7	4	0	3	12	2	0	12	8	3	0	2	13	2	0	68
07:15 AM	0	1	0	0	1	13	7	0	4	10	3	0	2	3	0	0	44
07:30 AM	0	4	1	0	1	8	6	0	2	10	0	0	0	4	1	0	37
07:45 AM	2	6	2	0	1	5	4	0	1	6	0	0	1	9	2	0	39
Total	2	18	7	0	6	38	19	0	19	34	6	0	5	29	5	0	188
08:00 AM	1	7	1	0	1	5	7	0	6	11	0	0	2	7	0	0	48
08:15 AM	0	5	1	0	3	7	5	0	9	5	4	0	2	9	2	0	52
08:30 AM	2	8	0	0	1	8	11	0	4	6	0	0	0	5	2	0	47
08:45 AM	1	5	4	0	4	4	10	0	3	6	3	0	0	3	0	0	43
Total	4	25	6	0	9	24	33	0	22	28	7	0	4	24	4	0	190
Grand Total	6	43	13	0	15	62	52	0	41	62	13	0	9	53	9	0	378
Apprch %	9.7	69.4	21	0	11.6	48.1	40.3	0	35.3	53.4	11.2	0	12.7	74.6	12.7	0	
Total %	1.6	11.4	3.4	0	4	16.4	13.8	0	10.8	16.4	3.4	0	2.4	14	2.4	0	

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	7	1	0	9	1	5	7	0	13	6	11	0	0	17	2	7	0	0	9	48
08:15 AM	0	5	1	0	6	3	7	5	0	15	9	5	4	0	18	2	9	2	0	13	52
08:30 AM	2	8	0	0	10	1	8	11	0	20	4	6	0	0	10	0	5	2	0	7	47
08:45 AM	1	5	4	0	10	4	4	10	0	18	3	6	3	0	12	0	3	0	0	3	43
Total Volume	4	25	6	0	35	9	24	33	0	66	22	28	7	0	57	4	24	4	0	32	190
% App. Total	11.4	71.4	17.1	0		13.6	36.4	50	0		38.6	49.1	12.3	0		12.5	75	12.5	0		
PHF	.500	.781	.375	.000	.875	.563	.750	.750	.000	.825	.611	.636	.438	.000	.792	.500	.667	.500	.000	.615	.913

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

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Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	16	98	0	119	4	0	0	9	0	246
07:15 AM	12	102	1	132	1	0	2	4	0	254
07:30 AM	31	110	0	110	3	0	2	7	0	263
07:45 AM	14	122	1	128	4	1	1	5	0	276
Total	73	432	2	489	12	1	5	25	0	1039
08:00 AM	14	98	0	130	1	0	3	4	0	250
08:15 AM	18	94	1	120	4	0	1	5	0	243
08:30 AM	15	97	0	104	6	0	0	5	0	227
08:45 AM	17	76	1	93	4	0	0	3	0	194
Total	64	365	2	447	15	0	4	17	0	914
Grand Total	137	797	4	936	27	1	9	42	0	1953
Apprch %	14.6	85	0.4	97.1	2.8	0.1	17.6	82.4	0	
Total %	7	40.8	0.2	47.9	1.4	0.1	0.5	2.2	0	
Cars	121	724	4	857	22	1	7	37	0	1773
% Cars	88.3	90.8	100	91.6	81.5	100	77.8	88.1	0	90.8
Heavy Vehicles	16	73	0	79	5	0	2	5	0	180
% Heavy Vehicles	11.7	9.2	0	8.4	18.5	0	22.2	11.9	0	9.2

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:15 AM													
07:15 AM	12	102	1	115	132	1	0	133	2	4	0	6	254
07:30 AM	31	110	0	141	110	3	0	113	2	7	0	9	263
07:45 AM	14	122	1	137	128	4	1	133	1	5	0	6	276
08:00 AM	14	98	0	112	130	1	0	131	3	4	0	7	250
Total Volume	71	432	2	505	500	9	1	510	8	20	0	28	1043
% App. Total	14.1	85.5	0.4		98	1.8	0.2		28.6	71.4	0		
PHF	.573	.885	.500	.895	.947	.563	.250	.959	.667	.714	.000	.778	.945
Cars	65	394	2	461	463	9	1	473	6	19	0	25	959
% Cars	91.5	91.2	100	91.3	92.6	100	100	92.7	75.0	95.0	0	89.3	91.9
Heavy Vehicles	6	38	0	44	37	0	0	37	2	1	0	3	84
% Heavy Vehicles	8.5	8.8	0	8.7	7.4	0	0	7.3	25.0	5.0	0	10.7	8.1

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 P
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	15	94	0	110	3	0	0	7	0	229
07:15 AM	11	93	1	127	1	0	0	4	0	237
07:30 AM	30	97	0	103	3	0	2	7	0	242
07:45 AM	12	117	1	123	4	1	1	4	0	263
Total	68	401	2	463	11	1	3	22	0	971
08:00 AM	12	87	0	110	1	0	3	4	0	217
08:15 AM	15	85	1	103	4	0	1	4	0	213
08:30 AM	13	85	0	97	4	0	0	5	0	204
08:45 AM	13	66	1	84	2	0	0	2	0	168
Total	53	323	2	394	11	0	4	15	0	802
Grand Total	121	724	4	857	22	1	7	37	0	1773
Apprch %	14.3	85.3	0.5	97.4	2.5	0.1	15.9	84.1	0	
Total %	6.8	40.8	0.2	48.3	1.2	0.1	0.4	2.1	0	

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	15	94	0	109	110	3	0	113	0	7	0	7	229
07:15 AM	11	93	1	105	127	1	0	128	0	4	0	4	237
07:30 AM	30	97	0	127	103	3	0	106	2	7	0	9	242
07:45 AM	12	117	1	130	123	4	1	128	1	4	0	5	263
Total Volume	68	401	2	471	463	11	1	475	3	22	0	25	971
% App. Total	14.4	85.1	0.4		97.5	2.3	0.2		12	88	0		
PHF	.567	.857	.500	.906	.911	.688	.250	.928	.375	.786	.000	.694	.923

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

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File Name : 144163 P
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Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
07:00 AM	1	4	0	9	1	0	0	2	0	17
07:15 AM	1	9	0	5	0	0	2	0	0	17
07:30 AM	1	13	0	7	0	0	0	0	0	21
07:45 AM	2	5	0	5	0	0	0	1	0	13
Total	5	31	0	26	1	0	2	3	0	68
08:00 AM	2	11	0	20	0	0	0	0	0	33
08:15 AM	3	9	0	17	0	0	0	1	0	30
08:30 AM	2	12	0	7	2	0	0	0	0	23
08:45 AM	4	10	0	9	2	0	0	1	0	26
Total	11	42	0	53	4	0	0	2	0	112
Grand Total	16	73	0	79	5	0	2	5	0	180
Apprch %	18	82	0	94	6	0	28.6	71.4	0	
Total %	8.9	40.6	0	43.9	2.8	0	1.1	2.8	0	

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 08:00 AM													
08:00 AM	2	11	0	13	20	0	0	20	0	0	0	0	33
08:15 AM	3	9	0	12	17	0	0	17	0	1	0	1	30
08:30 AM	2	12	0	14	7	2	0	9	0	0	0	0	23
08:45 AM	4	10	0	14	9	2	0	11	0	1	0	1	26
Total Volume	11	42	0	53	53	4	0	57	0	2	0	2	112
% App. Total	20.8	79.2	0		93	7	0		0	100	0		
PHF	.688	.875	.000	.946	.663	.500	.000	.713	.000	.500	.000	.500	.848

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

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File Name : 144163 L
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	96	7	0	0	0	0	0	11	109	5	0	1	0	6	0	236
07:15 AM	4	87	1	0	0	0	0	0	16	100	1	1	2	0	0	0	212
07:30 AM	6	104	4	1	0	0	0	0	12	93	1	0	1	0	1	0	223
07:45 AM	3	89	12	1	0	0	0	0	10	102	5	0	6	1	3	0	232
Total	14	376	24	2	0	0	0	0	49	404	12	1	10	1	10	0	903
08:00 AM	9	83	7	0	0	0	0	0	14	122	6	0	4	0	4	0	249
08:15 AM	4	89	6	0	0	0	0	0	13	78	3	0	2	1	2	0	198
08:30 AM	4	95	4	0	0	0	0	0	30	90	4	0	1	0	0	0	228
08:45 AM	7	97	8	0	0	0	0	0	17	99	2	0	2	1	0	0	233
Total	24	364	25	0	0	0	0	0	74	389	15	0	9	2	6	0	908
Grand Total	38	740	49	2	0	0	0	0	123	793	27	1	19	3	16	0	1811
Apprch %	4.6	89.3	5.9	0.2	0	0	0	0	13	84	2.9	0.1	50	7.9	42.1	0	
Total %	2.1	40.9	2.7	0.1	0	0	0	0	6.8	43.8	1.5	0.1	1	0.2	0.9	0	
Cars	33	638	48	2	0	0	0	0	122	713	27	1	15	3	12	0	1614
% Cars	86.8	86.2	98	100	0	0	0	0	99.2	89.9	100	100	78.9	100	75	0	89.1
Heavy Vehicles	5	102	1	0	0	0	0	0	1	80	0	0	4	0	4	0	197
% Heavy Vehicles	13.2	13.8	2	0	0	0	0	0	0.8	10.1	0	0	21.1	0	25	0	10.9

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	4	87	1	0	92	0	0	0	0	0	16	100	1	1	118	2	0	0	0	2	212
07:30 AM	6	104	4	1	115	0	0	0	0	0	12	93	1	0	106	1	0	1	0	2	223
07:45 AM	3	89	12	1	105	0	0	0	0	0	10	102	5	0	117	6	1	3	0	10	232
08:00 AM	9	83	7	0	99	0	0	0	0	0	14	122	6	0	142	4	0	4	0	8	249
Total Volume	22	363	24	2	411	0	0	0	0	0	52	417	13	1	483	13	1	8	0	22	916
% App. Total	5.4	88.3	5.8	0.5		0	0	0	0		10.8	86.3	2.7	0.2		59.1	4.5	36.4	0		
PHF	.611	.873	.500	.500	.893	.000	.000	.000	.000	.000	.813	.855	.542	.250	.850	.542	.250	.500	.000	.550	.920
Cars	19	316	24	2	361	0	0	0	0	0	51	378	13	1	443	10	1	6	0	17	821
% Cars	86.4	87.1	100	100	87.8	0	0	0	0	0	98.1	90.6	100	100	91.7	76.9	100	75.0	0	77.3	89.6
Heavy Vehicles	3	47	0	0	50	0	0	0	0	0	1	39	0	0	40	3	0	2	0	5	95
% Heavy Vehicles	13.6	12.9	0	0	12.2	0	0	0	0	0	1.9	9.4	0	0	8.3	23.1	0	25.0	0	22.7	10.4

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
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File Name : 144163 L
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	90	7	0	0	0	0	0	11	101	5	0	1	0	5	0	221
07:15 AM	4	79	1	0	0	0	0	0	16	92	1	1	2	0	0	0	196
07:30 AM	5	87	4	1	0	0	0	0	11	84	1	0	0	0	1	0	194
07:45 AM	2	77	12	1	0	0	0	0	10	94	5	0	6	1	3	0	211
Total	12	333	24	2	0	0	0	0	48	371	12	1	9	1	9	0	822
08:00 AM	8	73	7	0	0	0	0	0	14	108	6	0	2	0	2	0	220
08:15 AM	3	74	5	0	0	0	0	0	13	67	3	0	2	1	1	0	169
08:30 AM	4	80	4	0	0	0	0	0	30	83	4	0	0	0	0	0	205
08:45 AM	6	78	8	0	0	0	0	0	17	84	2	0	2	1	0	0	198
Total	21	305	24	0	0	0	0	0	74	342	15	0	6	2	3	0	792
Grand Total	33	638	48	2	0	0	0	0	122	713	27	1	15	3	12	0	1614
Apprch %	4.6	88.5	6.7	0.3	0	0	0	0	14.1	82.6	3.1	0.1	50	10	40	0	
Total %	2	39.5	3	0.1	0	0	0	0	7.6	44.2	1.7	0.1	0.9	0.2	0.7	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	1	90	7	0	98	0	0	0	0	0	11	101	5	0	117	1	0	5	0	6	221
07:15 AM	4	79	1	0	84	0	0	0	0	0	16	92	1	1	110	2	0	0	0	2	196
07:30 AM	5	87	4	1	97	0	0	0	0	0	11	84	1	0	96	0	0	1	0	1	194
07:45 AM	2	77	12	1	92	0	0	0	0	0	10	94	5	0	109	6	1	3	0	10	211
Total Volume	12	333	24	2	371	0	0	0	0	0	48	371	12	1	432	9	1	9	0	19	822
% App. Total	3.2	89.8	6.5	0.5		0	0	0	0		11.1	85.9	2.8	0.2		47.4	5.3	47.4	0		
PHF	.600	.925	.500	.500	.946	.000	.000	.000	.000	.000	.750	.918	.600	.250	.923	.375	.250	.450	.000	.475	.930

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

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File Name : 144163 L
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	6	0	0	0	0	0	0	0	8	0	0	0	0	1	0	15
07:15 AM	0	8	0	0	0	0	0	0	0	8	0	0	0	0	0	0	16
07:30 AM	1	17	0	0	0	0	0	0	1	9	0	0	1	0	0	0	29
07:45 AM	1	12	0	0	0	0	0	0	0	8	0	0	0	0	0	0	21
Total	2	43	0	0	0	0	0	0	1	33	0	0	1	0	1	0	81
08:00 AM	1	10	0	0	0	0	0	0	0	14	0	0	2	0	2	0	29
08:15 AM	1	15	1	0	0	0	0	0	0	11	0	0	0	0	1	0	29
08:30 AM	0	15	0	0	0	0	0	0	0	7	0	0	1	0	0	0	23
08:45 AM	1	19	0	0	0	0	0	0	0	15	0	0	0	0	0	0	35
Total	3	59	1	0	0	0	0	0	0	47	0	0	3	0	3	0	116
Grand Total	5	102	1	0	0	0	0	0	1	80	0	0	4	0	4	0	197
Apprch %	4.6	94.4	0.9	0	0	0	0	0	1.2	98.8	0	0	50	0	50	0	
Total %	2.5	51.8	0.5	0	0	0	0	0	0.5	40.6	0	0	2	0	2	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	10	0	0	11	0	0	0	0	0	0	14	0	0	14	2	0	2	0	4	29
08:15 AM	1	15	1	0	17	0	0	0	0	0	0	11	0	0	11	0	0	1	0	1	29
08:30 AM	0	15	0	0	15	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	23
08:45 AM	1	19	0	0	20	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	35
Total Volume	3	59	1	0	63	0	0	0	0	0	0	47	0	0	47	3	0	3	0	6	116
% App. Total	4.8	93.7	1.6	0		0	0	0	0		0	100	0	0		50	0	50	0		
PHF	.750	.776	.250	.000	.788	.000	.000	.000	.000	.000	.000	.783	.000	.000	.783	.375	.000	.375	.000	.375	.829

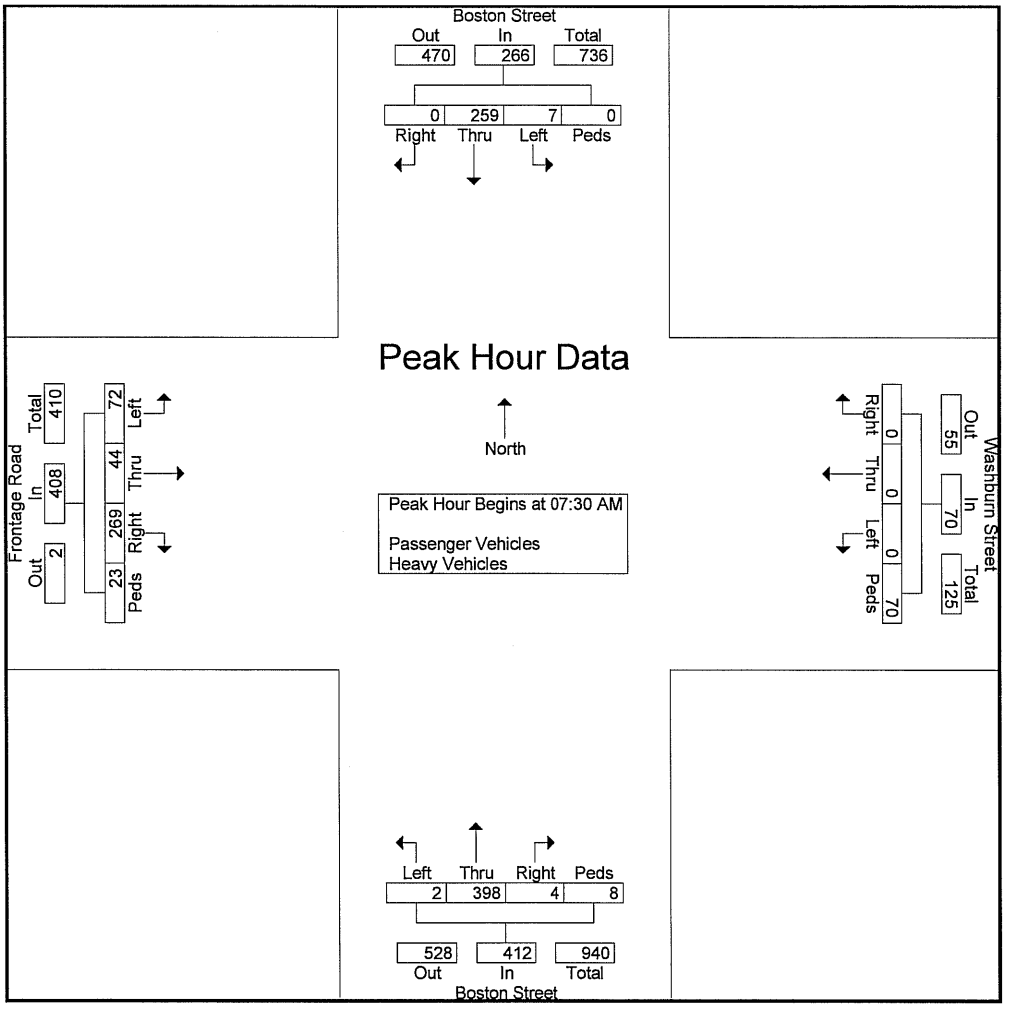
MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S:Boston Street
E/W:Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn AM
Site Code : 00804001
Start Date : 2/26/2015
Page No : 2

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	63	**3**	0	66	0	0	0	20	20	1	105	0	3	109	**91**	8	**28**	3	**130**	**325**
07:45 AM	0	65	1	0	66	0	0	0	14	14	0	**113**	**2**	1	**116**	66	9	16	6	97	293
08:00 AM	0	**72**	3	0	**75**	0	0	0	14	14	**2**	86	0	0	88	55	**18**	14	2	89	266
08:15 AM	0	59	0	0	59	0	0	0	**22**	**22**	1	94	0	**4**	99	57	9	14	**12**	92	272
Total Volume	0	259	7	0	266	0	0	0	70	70	4	398	2	8	412	269	44	72	23	408	1156
% App. Total	0	97.4	2.6	0		0	0	0	100		1	96.6	0.5	1.9		65.9	10.8	17.6	5.6		
PHF	.000	.899	.583	.000	.887	.000	.000	.000	.795	.795	.500	.881	.250	.500	.888	.739	.611	.643	.479	.785	.889



MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S:Boston Street
E/W:Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn AM
Site Code : 00804001
Start Date : 2/26/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	63	3	0	66	0	0	0	20	20	1	105	0	3	109	91	8	28	3	130	325
07:45 AM	0	65	1	0	66	0	0	0	14	14	0	113	2	1	116	66	9	16	6	97	293
Total	0	128	4	0	132	0	0	0	34	34	1	218	2	4	225	157	17	44	9	227	618
08:00 AM	0	72	3	0	75	0	0	0	14	14	2	86	0	0	88	55	18	14	2	89	266
08:15 AM	0	59	0	0	59	0	0	0	22	22	1	94	0	4	99	57	9	14	12	92	272
Grand Total	0	259	7	0	266	0	0	0	70	70	4	398	2	8	412	269	44	72	23	408	1156
Apprch %	0	97.4	2.6	0		0	0	0	100		1	96.6	0.5	1.9		65.9	10.8	17.6	5.6		
Total %	0	22.4	0.6	0	23	0	0	0	6.1	6.1	0.3	34.4	0.2	0.7	35.6	23.3	3.8	6.2	2	35.3	
Passenger Vehicles	0	239	7	0	246	0	0	0	70	70	4	367	2	8	381	251	44	71	23	389	1086
% Passenger Vehicles																					
Heavy Vehicles	0	20	0	0	20	0	0	0	0	0	0	31	0	0	31	18	0	1	0	19	70
% Heavy Vehicles	0	7.7	0	0	7.5	0	0	0	0	0	0	7.8	0	0	7.5	6.7	0	1.4	0	4.7	6.1

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28 Lord Road, Suite 280
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N/S:Boston Street
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File Name : 804 Boston-Washburn AM
Site Code : 00804001
Start Date : 2/26/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	55	3	0	58	0	0	0	20	20	1	97	0	3	101	83	8	28	3	122	301
07:45 AM	0	60	1	0	61	0	0	0	14	14	0	109	2	1	112	66	9	16	6	97	284
Total	0	115	4	0	119	0	0	0	34	34	1	206	2	4	213	149	17	44	9	219	585
08:00 AM	0	70	3	0	73	0	0	0	14	14	2	79	0	0	81	50	18	13	2	83	251
08:15 AM	0	54	0	0	54	0	0	0	22	22	1	82	0	4	87	52	9	14	12	87	250
Grand Total	0	239	7	0	246	0	0	0	70	70	4	367	2	8	381	251	44	71	23	389	1086
Apprch %	0	97.2	2.8	0		0	0	0	100		1	96.3	0.5	2.1		64.5	11.3	18.3	5.9		
Total %	0	22	0.6	0	22.7	0	0	0	6.4	6.4	0.4	33.8	0.2	0.7	35.1	23.1	4.1	6.5	2.1	35.8	

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	55	**3**	0	58	0	0	0	20	20	1	97	0	3	101	**83**	8	**28**	3	**122**	**301**
07:45 AM	0	60	1	0	61	0	0	0	14	14	0	**109**	**2**	1	**112**	66	9	16	6	97	284
08:00 AM	0	**70**	3	0	**73**	0	0	0	14	14	**2**	79	0	0	81	50	**18**	13	2	83	251
08:15 AM	0	54	0	0	54	0	0	0	**22**	**22**	1	82	0	**4**	87	52	9	14	**12**	87	250
Total Volume	0	239	7	0	246	0	0	0	70	70	4	367	2	8	381	251	44	71	23	389	1086
% App. Total	0	97.2	2.8	0		0	0	0	100		1	96.3	0.5	2.1		64.5	11.3	18.3	5.9		
PHF	.000	.854	.583	.000	.842	.000	.000	.000	.795	.795	.500	.842	.250	.500	.850	.756	.611	.634	.479	.797	.902

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S:Boston Street
E/W:Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn AM
Site Code : 00804001
Start Date : 2/26/2015
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	8	0	0	0	8	24
07:45 AM	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
Total	0	13	0	0	13	0	0	0	0	0	0	12	0	0	12	8	0	0	0	8	33
08:00 AM	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	5	0	1	0	6	15
08:15 AM	0	5	0	0	5	0	0	0	0	0	0	12	0	0	12	5	0	0	0	5	22
Grand Total	0	20	0	0	20	0	0	0	0	0	0	31	0	0	31	18	0	1	0	19	70
Apprch %	0	100	0	0		0	0	0	0		0	100	0	0		94.7	0	5.3	0		
Total %	0	28.6	0	0	28.6	0	0	0	0	0	0	44.3	0	0	44.3	25.7	0	1.4	0	27.1	

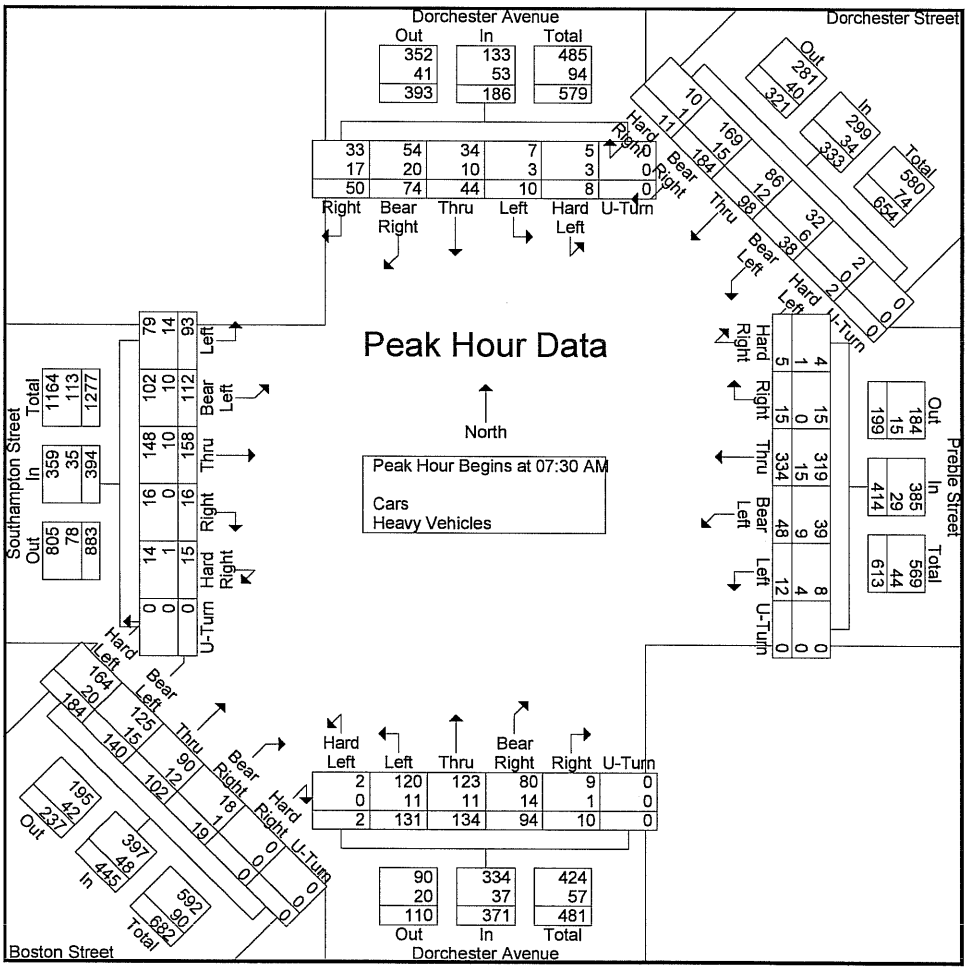
	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**8**	0	0	**8**	0	0	0	0	0	0	8	0	0	8	**8**	0	0	0	**8**	**24**
07:45 AM	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
08:00 AM	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	5	0	**1**	0	6	15
08:15 AM	0	5	0	0	5	0	0	0	0	0	0	**12**	0	0	**12**	5	0	0	0	5	22
Total Volume	0	20	0	0	20	0	0	0	0	0	0	31	0	0	31	18	0	1	0	19	70
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		94.7	0	5.3	0		
PHF	.000	.625	.000	.000	.625	.000	.000	.000	.000	.000	.000	.646	.000	.000	.646	.563	.000	.250	.000	.594	.729

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 E
Site Code : 804
Start Date : 11/13/2014
Page No : 1

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 07:30 AM																																										
07:30 AM	10	22	12	4	2	0	50	5	32	26	11	0	0	74	0	3	81	15	4	0	103	3	22	38	35	1	0	99	0	5	20	37	45	0	107	2	4	38	32	16	0	92	525
07:45 AM	10	17	14	5	3	0	49	1	57	25	10	2	0	95	1	7	87	11	1	0	107	5	28	30	32	0	0	95	0	5	24	34	44	0	107	3	2	35	21	23	0	84	537
08:00 AM	15	13	11	1	1	0	41	3	46	23	8	0	0	80	1	3	81	8	3	0	96	2	19	38	32	1	0	92	0	6	34	37	40	0	117	6	7	44	27	28	0	112	538
08:15 AM	15	22	7	0	2	0	46	2	49	24	9	0	0	84	3	2	85	14	4	0	108	0	25	28	32	0	0	85	0	3	24	32	55	0	114	4	3	41	32	26	0	106	543
Total Volume	50	74	44	10	8	0	186	11	184	98	38	2	0	333	5	15	334	48	12	0	414	10	94	134	132	2	0	371	0	19	102	140	184	0	445	15	16	158	112	93	0	394	2143
% App Total	26.9	39.8	23.7	5.4	4.3	0		3.3	55.3	29.4	11.4	0.6	0		1.2	3.6	80.7	11.6	2.9	0		2.7	25.3	36.1	35.3	0.5	0		0	4.3	22.9	31.5	41.3	0		3.8	4.1	40.1	28.4	23.6	0		
PHF	.833	.841	.786	.500	.667	.000	.930	.550	.804	.766	.950	.250	.000	.876	.417	.536	.963	.800	.750	.000	.958	.500	.839	.882	.939	.500	.000	.937	.000	.792	.750	.946	.836	.000	.951	.625	.571	.896	.875	.837	.000	.879	.987
Cars	33	54	34	7	5	0	133	10	169	86	32	2	0	299	4	15	319	39	8	0	385	9	80	123	120	2	0	334	0	18	90	125	164	0	397	14	16	148	102	79	0	359	1907
% Cars	66.0	73.0	77.3	70.0	62.5	0	71.5	90.9	91.8	87.8	84.2	100	0	89.8	80.0	100	95.5	81.3	66.7	0	93.0	90.0	85.1	91.8	91.6	100	0	90.0	0	94.7	88.2	89.3	89.1	0	89.2	93.3	100	93.7	91.1	84.9	0	91.1	89.0
Heavy Vehicles	17	20	10	3	3	0	53	1	15	12	6	0	0	34	1	0	15	9	4	0	29	1	14	11	11	0	0	37	0	1	12	15	20	0	48	1	0	10	10	14	0	35	236
% Heavy Vehicles	34.0	27.0	22.7	30.0	37.5	0	28.5	9.1	8.2	12.2	15.8	0	0	10.2	20.0	0	4.5	18.8	33.3	0	7.0	10.0	14.9	8.2	8.4	0	0	10.0	0	5.3	11.8	10.7	10.9	0	10.8	6.7	0	6.3	8.9	15.1	0	8.9	11.0



N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
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File Name : 144163 E
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Groups Printed- Cars - Heavy Vehicles

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	12	17	16	2	0	0	2	36	31	8	0	1	0	5	94	9	3	0	4	15	34	31	1	0	0	2	35	29	47	0	0	3	26	33	16	0	512
07:15 AM	17	12	12	4	4	0	1	46	27	7	2	0	1	3	86	17	2	0	1	23	38	33	0	0	0	0	34	35	42	0	1	3	27	30	22	0	530
07:30 AM	10	22	12	4	2	0	5	32	26	11	0	0	0	3	81	15	4	0	3	22	38	35	1	0	0	5	20	37	45	0	2	4	38	32	16	0	525
07:45 AM	10	17	14	5	3	0	1	57	25	10	2	0	1	7	87	11	1	0	5	28	30	32	0	0	0	5	24	34	44	0	3	2	35	21	23	0	537
Total	49	68	54	15	9	0	9	171	109	36	4	1	2	18	348	52	10	0	13	88	140	131	2	0	0	12	113	135	178	0	6	12	126	116	77	0	2104
08:00 AM	15	13	11	1	1	0	3	46	23	8	0	0	1	3	81	8	3	0	2	19	38	32	1	0	0	6	34	37	40	0	6	7	44	27	28	0	538
08:15 AM	15	22	7	0	2	0	2	49	24	9	0	0	3	2	85	14	4	0	0	25	28	32	0	0	0	3	24	32	55	0	4	3	41	32	26	0	543
08:30 AM	17	21	13	5	1	0	2	53	20	8	2	0	0	5	69	9	0	0	3	22	55	13	1	0	0	2	29	35	47	1	5	3	33	22	23	0	519
08:45 AM	16	20	13	2	2	0	6	42	29	11	1	0	0	3	55	12	2	0	0	9	36	31	1	0	0	1	36	35	35	0	5	4	24	26	20	0	477
Total	63	76	44	8	6	0	13	190	96	36	3	0	4	13	290	43	9	0	5	75	157	108	3	0	0	12	123	139	177	1	20	17	142	107	97	0	2077
Grand Total	112	144	98	23	15	0	22	361	205	72	7	1	6	31	638	95	19	0	18	163	297	239	5	0	0	24	236	274	355	1	26	29	268	223	174	0	4181
Apprch %	28.6	36.7	25	5.9	3.8	0	3.3	54	30.7	10.8	1	0.1	0.8	3.9	80.9	12	2.4	0	2.5	22.6	41.1	33.1	0.7	0	0	2.7	26.5	30.8	39.9	0.1	3.6	4	37.2	31	24.2	0	
Total %	2.7	3.4	2.3	0.6	0.4	0	0.5	8.6	4.9	1.7	0.2	0	0.1	0.7	15.3	2.3	0.5	0	0.4	3.9	7.1	5.7	0.1	0	0	0.6	5.6	6.6	8.5	0	0.6	0.7	6.4	5.3	4.2	0	
Cars	75	112	75	15	8	0	21	332	181	59	6	1	5	30	607	83	14	0	16	144	268	217	5	0	0	22	211	248	320	1	22	28	248	201	154	0	3729
% Cars	67	77.8	76.5	65.2	53.3	0	95.5	92	88.3	81.9	85.7	100	83.3	96.8	95.1	87.4	73.7	0	88.9	88.3	90.2	90.8	100	0	0	91.7	89.4	90.5	90.1	100	84.6	96.6	92.5	90.1	88.5	0	89.2
Heavy Vehicles	37	32	23	8	7	0	1	29	24	13	1	0	1	1	31	12	5	0	2	19	29	22	0	0	0	2	25	26	35	0	4	1	20	22	20	0	452
% Heavy Vehicles	33	22.2	23.5	34.8	46.7	0	4.5	8	11.7	18.1	14.3	0	16.7	3.2	4.9	12.6	26.3	0	11.1	11.7	9.8	9.2	0	0	0	8.3	10.6	9.5	9.9	0	15.4	3.4	7.5	9.9	11.5	0	10.8

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 07:30 AM																																										
07:30 AM	10	22	12	4	2	0	50	5	32	26	11	0	0	74	0	3	81	15	4	0	103	3	22	38	35	1	0	99	0	5	20	37	45	0	107	2	4	38	32	16	0	92	525
07:45 AM	10	17	14	5	3	0	49	1	57	25	10	2	0	95	1	7	87	11	1	0	107	5	28	30	32	0	0	95	0	5	24	34	44	0	107	3	2	35	21	23	0	84	537
08:00 AM	15	13	11	1	1	0	41	3	46	23	8	0	0	80	1	3	81	8	3	0	96	2	19	38	32	1	0	92	0	6	34	37	40	0	117	6	7	44	27	28	0	112	538
08:15 AM	15	22	7	0	2	0	46	2	49	24	9	0	0	84	3	2	85	14	4	0	108	0	25	28	32	0	0	85	0	3	24	32	55	0	114	4	3	41	32	26	0	106	543
Total Volume	50	74	44	10	8	0	186	11	184	98	38	2	0	333	5	15	334	48	12	0	414	10	94	134	132	2	0	371	0	19	102	144	184	0	445	15	16	158	112	93	0	394	2143
% App. Total	26.9	39.8	23.7	5.4	4.3	0		3.3	55.3	29.4	11.4	0.6	0		1.2	3.6	80.7	11.6	2.9	0		2.7	25.3	36.1	35.3	0.5	0		0	4.3	22.9	31.5	41.3	0		3.8	4.1	40.1	28.4	23.6	0		
PHF	.833	.841	.786	.500	.667	.000	.930	.550	.804	.942	.864	.250	.000	.876	.417	.536	.963	.800	.750	.000	.958	.500	.838	.882	.933	.500	.000	.937	.000	.792	.750	.949	.833	.000	.951	.625	.571	.891	.875	.837	.000	.879	.987
Cars	33	54	34	7	5	0	133	10	169	86	32	2	0	299	4	15	319	39	8	0	385	9	80	123	120	2	0	334	0	18	90	125	164	0	397	14	16	148	102	79	0	359	1907
% Cars	66.0	73.0	77.3	70.0	62.5	0	71.5	90.9	91.8	87.8	84.2	100	0	89.8	80.0	100	95.5	81.3	66.7	0	93.0	90.0	85.1	91.8	91.6	100	0	90.0	0	94.7	88.2	89.3	89.1	0	89.2	93.3	100	93.7	91.1	84.9	0	91.1	89.0
Heavy Vehicles	17	20	10	3	3	0	53	1	15	12	6	0	0	34	1	0	15	9	4	0	29	1	14	11	11	0	0	37	0	1	12	15	20	0	48	1	0	10	10	14	0	35	236
% Heavy Vehicles	34.0	27.0	22.7	30.0	37.5	0	28.5	9.1	8.2	12.2	15.8	0	0	10.2	20.0	0	4.5	18.8	33.3	0	7.0	10.0	14.9	8.2	8.4	0	0	10.0	0	5.3	11.8	10.7	10.9	0	10.8	6.7	0	6.3	8.9	15.1	0	8.9	11.0

N/S/NE: Dorchester Ave/ Dorchester St
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File Name : 144163 E
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Start Date : 11/13/2014
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Groups Printed- Cars

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
07:00 AM	7	14	11	2	0	0	2	33	29	6	0	1	0	4	91	9	3	0	3	13	30	29	1	0	0	1	28	28	42	0	0	3	24	27	15	0	456
07:15 AM	15	10	11	3	2	0	1	42	24	7	2	0	1	3	83	16	2	0	1	22	32	30	0	0	0	0	32	34	41	0	1	3	23	28	18	0	487
07:30 AM	4	16	8	3	1	0	5	30	21	10	0	0	0	3	79	13	3	0	3	19	35	31	1	0	0	5	16	33	40	0	2	4	37	31	12	0	465
07:45 AM	8	14	12	4	3	0	1	52	22	7	2	0	0	7	82	8	0	0	4	25	26	31	0	0	0	5	23	31	40	0	3	2	33	18	22	0	485
Total	34	54	42	12	6	0	9	157	96	30	4	1	1	17	335	46	8	0	11	79	123	121	2	0	0	11	99	126	163	0	6	12	117	104	67	0	1893
08:00 AM	12	8	9	0	0	0	2	41	21	7	0	0	1	3	78	7	2	0	2	19	38	29	1	0	0	6	30	34	36	0	5	7	40	23	23	0	484
08:15 AM	9	16	5	0	1	0	2	46	22	8	0	0	3	2	80	11	3	0	0	17	24	29	0	0	0	2	21	27	48	0	4	3	38	30	22	0	473
08:30 AM	11	18	8	3	0	0	2	50	18	6	2	0	0	5	62	8	0	0	3	22	52	13	1	0	0	2	27	31	41	1	4	3	32	21	23	0	469
08:45 AM	9	16	11	0	1	0	6	38	24	8	0	0	0	3	52	11	1	0	0	7	31	25	1	0	0	1	34	30	32	0	3	3	21	23	19	0	410
Total	41	58	33	3	2	0	12	175	85	29	2	0	4	13	272	37	6	0	5	65	145	96	3	0	0	11	112	122	157	1	16	16	131	97	87	0	1836
Grand Total	75	112	75	15	8	0	21	332	181	59	6	1	5	30	607	83	14	0	16	144	268	217	5	0	0	22	211	248	320	1	22	28	248	201	154	0	3729
Apprch %	26.3	39.3	26.3	5.3	2.8	0	3.5	55.3	30.2	9.8	1	0.2	0.7	4.1	82.1	11.2	1.9	0	2.5	22.2	41.2	33.4	0.8	0	0	2.7	26.3	30.9	39.9	0.1	3.4	4.3	38	30.8	23.6	0	
Total %	2	3	2	0.4	0.2	0	0.6	8.9	4.9	1.6	0.2	0	0.1	0.8	16.3	2.2	0.4	0	0.4	3.9	7.2	5.8	0.1	0	0	0.6	5.7	6.7	8.6	0	0.6	0.8	6.7	5.4	4.1	0	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 07:15 AM																																										
07:15 AM	15	10	11	3	2	0	41	1	42	24	7	2	0	76	1	3	83	16	2	0	105	1	22	32	30	0	0	85	0	0	32	34	41	0	107	1	3	23	28	18	0	73	487
07:30 AM	4	16	8	3	1	0	32	5	30	21	10	0	0	66	0	3	79	13	3	0	98	3	19	35	31	1	0	89	0	5	16	33	40	0	94	2	4	37	31	12	0	86	465
07:45 AM	8	14	12	4	3	0	41	1	52	22	7	2	0	84	0	7	82	8	0	0	97	4	25	26	31	0	0	86	0	5	23	31	40	0	99	3	2	33	18	22	0	78	485
08:00 AM	12	8	9	0	0	0	29	2	41	21	7	0	0	71	1	3	78	7	2	0	91	2	19	38	29	1	0	89	0	6	30	34	36	0	106	5	7	40	23	23	0	98	484
Total Volume	39	48	40	10	6	0	143	9	16 5	88	31	4	0	297	2	16	32 2	44	7	0	391	10	85	13 1	12 1	2	0	349	0	16	10 1	13 2	15 7	0	406	11	16	13 3	10 0	75	0	335	1921
% App. Total	27.3	33.6	28	7	4.2	0		3	55.6	29.6	10.4	1.3	0		0.5	4.1	82.4	11.3	1.8	0		2.9	24.4	37.5	34.7	0.6	0		0	3.9	24.9	32.5	38.7	0		3.3	4.8	39.7	29.9	22.4	0		
PHF	.65	.75	.83	.62	.50	.00	.872	.45	.79	.91	.77	.50	.00	.884	.50	.57	.97	.68	.58	.00	.931	.62	.85	.86	.97	.50	.00	.980	.00	.66	.78	.97	.95	.00	.949	.55	.57	.83	.80	.81	.00	.855	.986

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 E
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

Start Time	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						Int. Total
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	
07:00 AM	5	3	5	0	0	0	0	3	2	2	0	0	0	1	3	0	0	0	1	2	4	2	0	0	0	1	7	1	5	0	0	0	2	6	1	0	56
07:15 AM	2	2	1	1	2	0	0	4	3	0	0	0	0	0	3	1	0	0	0	1	6	3	0	0	0	0	2	1	1	0	0	0	4	2	4	0	43
07:30 AM	6	6	4	1	1	0	0	2	5	1	0	0	0	0	2	2	1	0	0	3	3	4	0	0	0	0	4	4	5	0	0	0	1	1	4	0	60
07:45 AM	2	3	2	1	0	0	0	5	3	3	0	0	1	0	5	3	1	0	1	3	4	1	0	0	0	0	1	3	4	0	0	0	2	3	1	0	52
Total	15	14	12	3	3	0	0	14	13	6	0	0	1	1	13	6	2	0	2	9	17	10	0	0	0	1	14	9	15	0	0	0	9	12	10	0	211
08:00 AM	3	5	2	1	1	0	1	5	2	1	0	0	0	0	3	1	1	0	0	0	0	3	0	0	0	0	4	3	4	0	1	0	4	4	5	0	54
08:15 AM	6	6	2	0	1	0	0	3	2	1	0	0	0	0	5	3	1	0	0	8	4	3	0	0	0	1	3	5	7	0	0	0	3	2	4	0	70
08:30 AM	6	3	5	2	1	0	0	3	2	2	0	0	0	0	7	1	0	0	0	0	3	0	0	0	0	0	2	4	6	0	1	0	1	1	0	0	50
08:45 AM	7	4	2	2	1	0	0	4	5	3	1	0	0	0	3	1	1	0	0	2	5	6	0	0	0	0	2	5	3	0	2	1	3	3	1	0	67
Total	22	18	11	5	4	0	1	15	11	7	1	0	0	0	18	6	3	0	0	10	12	12	0	0	0	1	11	17	20	0	4	1	11	10	10	0	241
Grand Total	37	32	23	8	7	0	1	29	24	13	1	0	1	1	31	12	5	0	2	19	29	22	0	0	0	2	25	26	35	0	4	1	20	22	20	0	452
Apprch %	34.6	29.9	21.5	7.5	6.5	0	1.5	42.6	35.3	19.1	1.5	0	2	2	62	24	10	0	2.8	26.4	40.3	30.6	0	0	0	2.3	28.4	29.5	39.8	0	6	1.5	29.9	32.8	29.9	0	
Total %	8.2	7.1	5.1	1.8	1.5	0	0.2	6.4	5.3	2.9	0.2	0	0.2	0.2	6.9	2.7	1.1	0	0.4	4.2	6.4	4.9	0	0	0	0.4	5.5	5.8	7.7	0	0.9	0.2	4.4	4.9	4.4	0	

Start Time	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							Int. Total
	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 08:00 AM																																										
08:00 AM	3	5	2	1	1	0	12	1	5	2	1	0	0	9	0	0	3	1	1	0	5	0	0	0	3	0	0	3	0	0	4	3	4	0	11	1	0	4	4	5	0	14	54
08:15 AM	6	6	2	0	1	0	15	0	3	2	1	0	0	6	0	0	5	3	1	0	9	0	8	4	3	0	0	15	0	1	3	5	7	0	16	0	0	3	2	4	0	9	70
08:30 AM	6	3	5	2	1	0	17	0	3	2	2	0	0	7	0	0	7	1	0	0	8	0	0	3	0	0	0	3	0	0	2	4	6	0	12	1	0	1	1	0	0	3	50
08:45 AM	7	4	2	2	1	0	16	0	4	5	3	1	0	13	0	0	3	1	1	0	5	0	2	5	6	0	0	13	0	0	2	5	3	0	10	2	1	3	3	1	0	10	67
Total Volume	22	18	11	5	4	0	60	1	15	11	7	1	0	35	0	0	18	6	3	0	27	0	10	12	12	0	0	34	0	1	11	17	20	0	49	4	1	11	10	10	0	36	241
% App. Total	36.7	30	18.3	8.3	6.7	0		2.9	42.9	31.4	20	2.9	0		0	0	66.7	22.2	11.1	0		0	29.4	35.3	35.3	0	0		0	2	22.4	34.7	40.8	0		11.1	2.8	30.6	27.8	27.8	0		
PHF	.786	.750	.550	.625	1.00	.000	.882	.250	.750	.550	.583	.250	.000	.673	.000	.000	.643	.500	.750	.000	.750	.000	.313	.600	.500	.000	.000	.567	.000	.250	.688	.854	.714	.000	.766	.500	.250	.688	.625	.500	.000	.643	.861

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 F
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	2	0	0	0	112	123	0	0	19	8	118	0	0	77	77	0	536
07:15 AM	5	0	0	0	115	143	0	1	24	4	115	0	0	77	100	0	584
07:30 AM	9	0	0	0	99	135	0	0	18	5	89	0	0	88	117	0	560
07:45 AM	31	0	0	0	123	144	0	0	19	12	84	0	0	95	89	0	597
Total	47	0	0	0	449	545	0	1	80	29	406	0	0	337	383	0	2277
08:00 AM	9	0	0	0	99	152	0	0	39	5	96	0	0	94	110	1	605
08:15 AM	2	0	0	0	91	126	0	0	14	2	87	0	0	86	139	0	547
08:30 AM	3	0	0	0	93	142	0	0	16	3	93	0	0	83	119	0	552
08:45 AM	3	0	0	0	88	117	0	0	11	2	57	0	0	70	121	0	469
Total	17	0	0	0	371	537	0	0	80	12	333	0	0	333	489	1	2173
Grand Total	64	0	0	0	820	1082	0	1	160	41	739	0	0	670	872	1	4450
Apprch %	100	0	0	0	43.1	56.9	0	0.1	17	4.4	78.6	0	0	43.4	56.5	0.1	
Total %	1.4	0	0	0	18.4	24.3	0	0	3.6	0.9	16.6	0	0	15.1	19.6	0	
Cars	60	0	0	0	776	1005	0	1	139	38	696	0	0	608	726	1	4050
% Cars	93.8	0	0	0	94.6	92.9	0	100	86.9	92.7	94.2	0	0	90.7	83.3	100	91
Heavy Vehicles	4	0	0	0	44	77	0	0	21	3	43	0	0	62	146	0	400
% Heavy Vehicles	6.2	0	0	0	5.4	7.1	0	0	13.1	7.3	5.8	0	0	9.3	16.7	0	9

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	0	0	0	5	115	143	0	1	259	24	4	115	0	143	0	77	100	0	177	584
07:30 AM	9	0	0	0	9	99	135	0	0	234	18	5	89	0	112	0	88	117	0	205	560
07:45 AM	31	0	0	0	31	123	144	0	0	267	19	12	84	0	115	0	95	89	0	184	597
08:00 AM	9	0	0	0	9	99	152	0	0	251	39	5	96	0	140	0	94	110	1	205	605
Total Volume	54	0	0	0	54	436	574	0	1	1011	100	26	384	0	510	0	354	416	1	771	2346
% App. Total	100	0	0	0		43.1	56.8	0	0.1		19.6	5.1	75.3	0		0	45.9	54	0.1		
PHF	.435	.000	.000	.000	.435	.886	.944	.000	.250	.947	.641	.542	.835	.000	.892	.000	.932	.889	.250	.940	.969
Cars	52	0	0	0	52	416	536	0	1	953	85	25	356	0	466	0	325	341	1	667	2138
% Cars	96.3	0	0	0	96.3	95.4	93.4	0	100	94.3	85.0	96.2	92.7	0	91.4	0	91.8	82.0	100	86.5	91.1
Heavy Vehicles	2	0	0	0	2	20	38	0	0	58	15	1	28	0	44	0	29	75	0	104	208
% Heavy Vehicles	3.7	0	0	0	3.7	4.6	6.6	0	0	5.7	15.0	3.8	7.3	0	8.6	0	8.2	18.0	0	13.5	8.9

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 F
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	0	0	0	108	115	0	0	17	8	114	0	0	66	61	0	490
07:15 AM	5	0	0	0	110	138	0	1	19	4	108	0	0	71	82	0	538
07:30 AM	8	0	0	0	95	121	0	0	15	4	79	0	0	83	97	0	502
07:45 AM	31	0	0	0	120	133	0	0	16	12	80	0	0	90	72	0	554
Total	45	0	0	0	433	507	0	1	67	28	381	0	0	310	312	0	2084
08:00 AM	8	0	0	0	91	144	0	0	35	5	89	0	0	81	90	1	544
08:15 AM	2	0	0	0	86	118	0	0	13	1	84	0	0	78	117	0	499
08:30 AM	2	0	0	0	86	128	0	0	14	2	89	0	0	75	99	0	495
08:45 AM	3	0	0	0	80	108	0	0	10	2	53	0	0	64	108	0	428
Total	15	0	0	0	343	498	0	0	72	10	315	0	0	298	414	1	1966
Grand Total	60	0	0	0	776	1005	0	1	139	38	696	0	0	608	726	1	4050
Apprch %	100	0	0	0	43.5	56.4	0	0.1	15.9	4.4	79.7	0	0	45.5	54.4	0.1	
Total %	1.5	0	0	0	19.2	24.8	0	0	3.4	0.9	17.2	0	0	15	17.9	0	

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	0	0	0	5	110	138	0	1	249	19	4	108	0	131	0	71	82	0	153	538
07:30 AM	8	0	0	0	8	95	121	0	0	216	15	4	79	0	98	0	83	97	0	180	502
07:45 AM	31	0	0	0	31	120	133	0	0	253	16	12	80	0	108	0	90	72	0	162	554
08:00 AM	8	0	0	0	8	91	144	0	0	235	35	5	89	0	129	0	81	90	1	172	544
Total Volume	52	0	0	0	52	416	536	0	1	953	85	25	356	0	466	0	325	341	1	667	2138
% App. Total	100	0	0	0		43.7	56.2	0	0.1		18.2	5.4	76.4	0		0	48.7	51.1	0.1		
PHF	.419	.000	.000	.000	.419	.867	.931	.000	.250	.942	.607	.521	.824	.000	.889	.000	.903	.879	.250	.926	.965

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
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File Name : 144163 F
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Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	1	0	0	0	4	8	0	0	2	0	4	0	0	11	16	0	46
07:15 AM	0	0	0	0	5	5	0	0	5	0	7	0	0	6	18	0	46
07:30 AM	1	0	0	0	4	14	0	0	3	1	10	0	0	5	20	0	58
07:45 AM	0	0	0	0	3	11	0	0	3	0	4	0	0	5	17	0	43
Total	2	0	0	0	16	38	0	0	13	1	25	0	0	27	71	0	193
08:00 AM	1	0	0	0	8	8	0	0	4	0	7	0	0	13	20	0	61
08:15 AM	0	0	0	0	5	8	0	0	1	1	3	0	0	8	22	0	48
08:30 AM	1	0	0	0	7	14	0	0	2	1	4	0	0	8	20	0	57
08:45 AM	0	0	0	0	8	9	0	0	1	0	4	0	0	6	13	0	41
Total	2	0	0	0	28	39	0	0	8	2	18	0	0	35	75	0	207
Grand Total	4	0	0	0	44	77	0	0	21	3	43	0	0	62	146	0	400
Apprch %	100	0	0	0	36.4	63.6	0	0	31.3	4.5	64.2	0	0	29.8	70.2	0	
Total %	1	0	0	0	11	19.2	0	0	5.2	0.8	10.8	0	0	15.5	36.5	0	

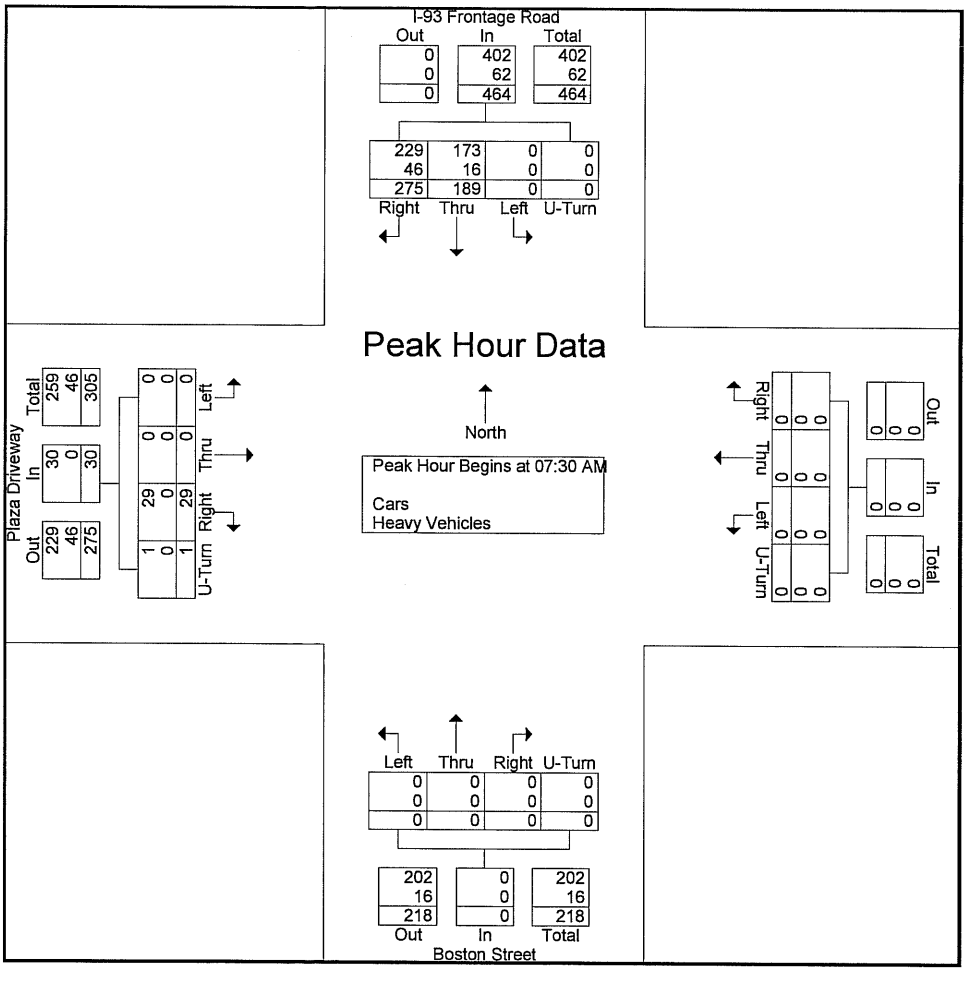
	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	0	0	0	1	4	14	0	0	18	3	1	10	0	14	0	5	20	0	25	58
07:45 AM	0	0	0	0	0	3	11	0	0	14	3	0	4	0	7	0	5	17	0	22	43
08:00 AM	1	0	0	0	1	8	8	0	0	16	4	0	7	0	11	0	13	20	0	33	61
08:15 AM	0	0	0	0	0	5	8	0	0	13	1	1	3	0	5	0	8	22	0	30	48
Total Volume	2	0	0	0	2	20	41	0	0	61	11	2	24	0	37	0	31	79	0	110	210
% App. Total	100	0	0	0		32.8	67.2	0	0		29.7	5.4	64.9	0		0	28.2	71.8	0		
PHF	.500	.000	.000	.000	.500	.625	.732	.000	.000	.847	.688	.500	.600	.000	.661	.000	.596	.898	.000	.833	.861

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 K
Site Code : 804
Start Date : 11/13/2014
Page No : 1

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	68	46	0	0	114	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	120
07:45 AM	62	56	0	0	118	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	125
08:00 AM	65	42	0	0	107	0	0	0	0	0	0	0	0	0	0	9	0	0	1	10	117
08:15 AM	80	45	0	0	125	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	132
Total Volume	275	189	0	0	464	0	0	0	0	0	0	0	0	0	0	29	0	0	1	30	494
% App. Total	59.3	40.7	0	0		0	0	0	0		0	0	0	0		96.7	0	0	3.3		
PHF	.859	.844	.000	.000	.928	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.806	.000	.000	.250	.750	.936
Cars	229	173	0	0	402	0	0	0	0	0	0	0	0	0	0	29	0	0	1	30	432
% Cars	83.3	91.5	0	0	86.6	0	0	0	0	0	0	0	0	0	0	100	0	0	100	100	87.4
Heavy Vehicles	46	16	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
% Heavy Vehicles	16.7	8.5	0	0	13.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.6



N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
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Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	70	40	0	0	0	0	0	0	0	0	0	0	3	0	0	0	113
07:15 AM	59	47	0	0	0	0	0	0	0	1	0	0	4	0	1	1	113
07:30 AM	68	46	0	0	0	0	0	0	0	0	0	0	6	0	0	0	120
07:45 AM	62	56	0	0	0	0	0	0	0	0	0	0	7	0	0	0	125
Total	259	189	0	0	0	0	0	0	0	1	0	0	20	0	1	1	471
08:00 AM	65	42	0	0	0	0	0	0	0	0	0	0	9	0	0	1	117
08:15 AM	80	45	0	0	0	0	0	0	0	0	0	0	7	0	0	0	132
08:30 AM	44	45	0	0	0	0	0	0	0	0	0	0	9	0	0	0	98
08:45 AM	62	47	0	0	0	0	0	0	0	0	0	0	11	0	0	0	120
Total	251	179	0	0	0	0	0	0	0	0	0	0	36	0	0	1	467
Grand Total	510	368	0	0	0	0	0	0	0	1	0	0	56	0	1	2	938
Apprch %	58.1	41.9	0	0	0	0	0	0	0	100	0	0	94.9	0	1.7	3.4	
Total %	54.4	39.2	0	0	0	0	0	0	0	0.1	0	0	6	0	0.1	0.2	
Cars	421	330	0	0	0	0	0	0	0	1	0	0	55	0	1	2	810
% Cars	82.5	89.7	0	0	0	0	0	0	0	100	0	0	98.2	0	100	100	86.4
Heavy Vehicles	89	38	0	0	0	0	0	0	0	0	0	0	1	0	0	0	128
% Heavy Vehicles	17.5	10.3	0	0	0	0	0	0	0	0	0	0	1.8	0	0	0	13.6

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	68	46	0	0	114	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	120
07:45 AM	62	56	0	0	118	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	125
08:00 AM	65	42	0	0	107	0	0	0	0	0	0	0	0	0	0	9	0	0	1	10	117
08:15 AM	80	45	0	0	125	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	132
Total Volume	275	189	0	0	464	0	0	0	0	0	0	0	0	0	0	29	0	0	1	30	494
% App. Total	59.3	40.7	0	0		0	0	0	0		0	0	0	0		96.7	0	0	3.3		
PHF	.859	.844	.000	.000	.928	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.806	.000	.000	.250	.750	.936
Cars	229	173	0	0	402	0	0	0	0	0	0	0	0	0	0	29	0	0	1	30	432
% Cars	83.3	91.5	0	0	86.6	0	0	0	0	0	0	0	0	0	0	100	0	0	100	100	87.4
Heavy Vehicles	46	16	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
% Heavy Vehicles	16.7	8.5	0	0	13.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.6

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 K
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	62	36	0	0	0	0	0	0	0	0	0	0	3	0	0	0	101
07:15 AM	49	44	0	0	0	0	0	0	0	1	0	0	4	0	1	1	100
07:30 AM	55	39	0	0	0	0	0	0	0	0	0	0	6	0	0	0	100
07:45 AM	50	51	0	0	0	0	0	0	0	0	0	0	7	0	0	0	108
Total	216	170	0	0	0	0	0	0	0	1	0	0	20	0	1	1	409
08:00 AM	54	41	0	0	0	0	0	0	0	0	0	0	9	0	0	1	105
08:15 AM	70	42	0	0	0	0	0	0	0	0	0	0	7	0	0	0	119
08:30 AM	30	39	0	0	0	0	0	0	0	0	0	0	8	0	0	0	77
08:45 AM	51	38	0	0	0	0	0	0	0	0	0	0	11	0	0	0	100
Total	205	160	0	0	0	0	0	0	0	0	0	0	35	0	0	1	401
Grand Total	421	330	0	0	0	0	0	0	0	1	0	0	55	0	1	2	810
Apprch %	56.1	43.9	0	0	0	0	0	0	0	100	0	0	94.8	0	1.7	3.4	
Total %	52	40.7	0	0	0	0	0	0	0	0.1	0	0	6.8	0	0.1	0.2	

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	55	39	0	0	94	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	100
07:45 AM	50	51	0	0	101	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	108
08:00 AM	54	41	0	0	95	0	0	0	0	0	0	0	0	0	0	9	0	0	1	10	105
08:15 AM	70	42	0	0	112	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	119
Total Volume	229	173	0	0	402	0	0	0	0	0	0	0	0	0	0	29	0	0	1	30	432
% App. Total	57	43	0	0		0	0	0	0		0	0	0	0		96.7	0	0	3.3		
PHF	.818	.848	.000	.000	.897	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.806	.000	.000	.250	.750	.908

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 K
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
07:15 AM	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
07:30 AM	13	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
07:45 AM	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Total	43	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
08:00 AM	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
08:15 AM	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
08:30 AM	14	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	21
08:45 AM	11	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	46	19	0	0	0	0	0	0	0	0	0	0	1	0	0	0	66
Grand Total	89	38	0	0	0	0	0	0	0	0	0	0	1	0	0	0	128
Apprch %	70.1	29.9	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	69.5	29.7	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0	

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	11	1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
08:15 AM	10	3	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
08:30 AM	14	6	0	0	20	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	21
08:45 AM	11	9	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total Volume	46	19	0	0	65	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	66
% App. Total	70.8	29.2	0	0		0	0	0	0		0	0	0	0		100	0	0	0		
PHF	.821	.528	.000	.000	.813	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.786

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	298	0	0	0	0	0	11	0	0	0	0	41	0	0	350
07:15 AM	0	1	263	0	0	0	0	0	10	0	0	0	0	48	0	0	322
07:30 AM	0	0	292	0	0	0	0	0	11	0	0	0	0	44	0	0	347
07:45 AM	0	0	280	0	0	0	0	0	3	0	0	0	0	70	0	0	353
Total	0	1	1133	0	0	0	0	0	35	0	0	0	0	203	0	0	1372
08:00 AM	0	0	241	0	0	0	0	0	12	0	0	0	0	64	0	0	317
08:15 AM	0	0	227	0	0	1	0	0	10	0	0	0	0	58	0	0	296
08:30 AM	0	0	204	0	0	0	0	0	10	0	0	0	1	50	0	0	265
08:45 AM	0	0	225	0	0	0	0	0	4	0	0	0	0	52	0	0	281
Total	0	0	897	0	0	1	0	0	36	0	0	0	1	224	0	0	1159
Grand Total	0	1	2030	0	0	1	0	0	71	0	0	0	1	427	0	0	2531
Apprch %	0	0	100	0	0	100	0	0	100	0	0	0	0.2	99.8	0	0	
Total %	0	0	80.2	0	0	0	0	0	2.8	0	0	0	0	16.9	0	0	
Cars	0	1	1821	0	0	1	0	0	70	0	0	0	1	370	0	0	2264
% Cars	0	100	89.7	0	0	100	0	0	98.6	0	0	0	100	86.7	0	0	89.5
Heavy Vehicles	0	0	209	0	0	0	0	0	1	0	0	0	0	57	0	0	267
% Heavy Vehicles	0	0	10.3	0	0	0	0	0	1.4	0	0	0	0	13.3	0	0	10.5

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	298	0	298	0	0	0	0	0	11	0	0	0	11	0	41	0	0	41	350
07:15 AM	0	1	263	0	264	0	0	0	0	0	10	0	0	0	10	0	48	0	0	48	322
07:30 AM	0	0	292	0	292	0	0	0	0	0	11	0	0	0	11	0	44	0	0	44	347
07:45 AM	0	0	280	0	280	0	0	0	0	0	3	0	0	0	3	0	70	0	0	70	353
Total Volume	0	1	1133	0	1134	0	0	0	0	0	35	0	0	0	35	0	203	0	0	203	1372
% App. Total																					
PHF	.000	.250	.951	.000	.951	.000	.000	.000	.000	.000	.795	.000	.000	.000	.795	.000	.725	.000	.000	.725	.972
Cars	0	1	1037	0	1038	0	0	0	0	0	35	0	0	0	35	0	176	0	0	176	1249
% Cars	0	100	91.5	0	91.5	0	0	0	0	0	100	0	0	0	100	0	86.7	0	0	86.7	91.0
Heavy Vehicles																					
% Heavy Vehicles	0	0	8.5	0	8.5	0	0	0	0	0	0	0	0	0	0	0	13.3	0	0	13.3	9.0

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Groups Printed- Cars

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	273	0	0	0	0	0	11	0	0	0	0	34	0	0	318
07:15 AM	0	1	247	0	0	0	0	0	10	0	0	0	0	43	0	0	301
07:30 AM	0	0	261	0	0	0	0	0	11	0	0	0	0	36	0	0	308
07:45 AM	0	0	256	0	0	0	0	0	3	0	0	0	0	63	0	0	322
Total	0	1	1037	0	0	0	0	0	35	0	0	0	0	176	0	0	1249
08:00 AM	0	0	218	0	0	0	0	0	12	0	0	0	0	57	0	0	287
08:15 AM	0	0	197	0	0	1	0	0	10	0	0	0	0	51	0	0	259
08:30 AM	0	0	172	0	0	0	0	0	9	0	0	0	1	45	0	0	227
08:45 AM	0	0	197	0	0	0	0	0	4	0	0	0	0	41	0	0	242
Total	0	0	784	0	0	1	0	0	35	0	0	0	1	194	0	0	1015
Grand Total	0	1	1821	0	0	1	0	0	70	0	0	0	1	370	0	0	2264
Apprch %	0	0.1	99.9	0	0	100	0	0	100	0	0	0	0.3	99.7	0	0	
Total %	0	0	80.4	0	0	0	0	0	3.1	0	0	0	0	16.3	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	273	0	273	0	0	0	0	0	11	0	0	0	11	0	34	0	0	34	318
07:15 AM	0	1	247	0	248	0	0	0	0	0	10	0	0	0	10	0	43	0	0	43	301
07:30 AM	0	0	261	0	261	0	0	0	0	0	11	0	0	0	11	0	36	0	0	36	308
07:45 AM	0	0	256	0	256	0	0	0	0	0	3	0	0	0	3	0	63	0	0	63	322
Total Volume	0	1	1037	0	1038	0	0	0	0	0	35	0	0	0	35	0	176	0	0	176	1249
% App. Total																					
PHF	.000	.250	.950	.000	.951	.000	.000	.000	.000	.000	.795	.000	.000	.000	.795	.000	.698	.000	.000	.698	.970

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

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Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	25	0	0	0	0	0	0	0	0	0	0	7	0	0	32
07:15 AM	0	0	16	0	0	0	0	0	0	0	0	0	0	5	0	0	21
07:30 AM	0	0	31	0	0	0	0	0	0	0	0	0	0	8	0	0	39
07:45 AM	0	0	24	0	0	0	0	0	0	0	0	0	0	7	0	0	31
Total	0	0	96	0	0	0	0	0	0	0	0	0	0	27	0	0	123
08:00 AM	0	0	23	0	0	0	0	0	0	0	0	0	0	7	0	0	30
08:15 AM	0	0	30	0	0	0	0	0	0	0	0	0	0	7	0	0	37
08:30 AM	0	0	32	0	0	0	0	0	1	0	0	0	0	5	0	0	38
08:45 AM	0	0	28	0	0	0	0	0	0	0	0	0	0	11	0	0	39
Total	0	0	113	0	0	0	0	0	1	0	0	0	0	30	0	0	144
Grand Total	0	0	209	0	0	0	0	0	1	0	0	0	0	57	0	0	267
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	78.3	0	0	0	0	0	0.4	0	0	0	0	21.3	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	23	0	23	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	30
08:15 AM	0	0	30	0	30	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	37
08:30 AM	0	0	32	0	32	0	0	0	0	0	1	0	0	0	1	0	5	0	0	5	38
08:45 AM	0	0	28	0	28	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	39
Total Volume	0	0	113	0	113	0	0	0	0	0	1	0	0	0	1	0	30	0	0	30	144
% App. Total	0	0	100	0		0	0	0	0		100	0	0	0		0	100	0	0		
PHF	.000	.000	.883	.000	.883	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.000	.682	.000	.000	.682	.923

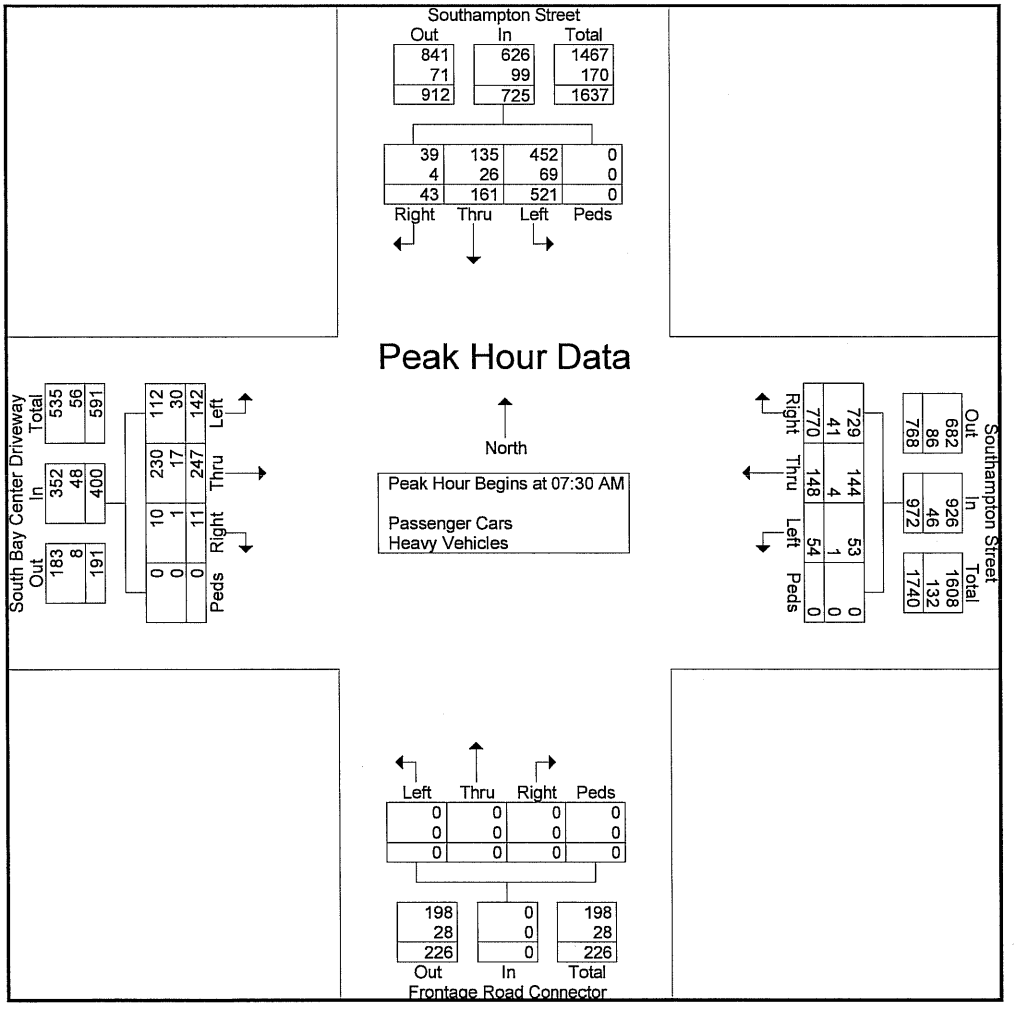
MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay AM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 2

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	7	33	**139**	0	179	**237**	**41**	4	0	**282**	0	0	0	0	0	**6**	**68**	35	0	**109**	**570**
07:45 AM	12	43	131	0	186	162	37	**26**	0	225	0	0	0	0	0	1	64	30	0	95	506
08:00 AM	11	39	115	0	165	200	33	15	0	248	0	0	0	0	0	1	55	38	0	94	507
08:15 AM	**13**	**46**	136	0	**195**	171	37	9	0	217	0	0	0	0	0	3	60	**39**	0	102	514
Total Volume	43	161	521	0	725	770	148	54	0	972	0	0	0	0	0	11	247	142	0	400	2097
% App. Total	5.9	22.2	71.9	0		79.2	15.2	5.6	0		0	0	0	0		2.8	61.8	35.5	0		
PHF	.827	.875	.937	.000	.929	.812	.902	.519	.000	.862	.000	.000	.000	.000	.000	.458	.908	.910	.000	.917	.920
Passenger Cars	39	135	452	0	626	729	144	53	0	926	0	0	0	0	0	10	230	112	0	352	1904
% Passenger Cars																					
Heavy Vehicles	4	26	69	0	99	41	4	1	0	46	0	0	0	0	0	1	17	30	0	48	193
% Heavy Vehicles	9.3	16.1	13.2	0	13.7	5.3	2.7	1.9	0	4.7	0	0	0	0	0	9.1	6.9	21.1	0	12.0	9.2



MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay AM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 1

Groups Printed- Passenger Cars - Heavy Vehicles

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	7	33	139	0	179	237	41	4	0	282	0	0	0	0	0	6	68	35	0	109	570
07:45 AM	12	43	131	0	186	162	37	26	0	225	0	0	0	0	0	1	64	30	0	95	506
Total	19	76	270	0	365	399	78	30	0	507	0	0	0	0	0	7	132	65	0	204	1076
08:00 AM	11	39	115	0	165	200	33	15	0	248	0	0	0	0	0	1	55	38	0	94	507
08:15 AM	13	46	136	0	195	171	37	9	0	217	0	0	0	0	0	3	60	39	0	102	514
Grand Total	43	161	521	0	725	770	148	54	0	972	0	0	0	0	0	11	247	142	0	400	2097
Apprch %	5.9	22.2	71.9	0		79.2	15.2	5.6	0		0	0	0	0		2.8	61.8	35.5	0		
Total %	2.1	7.7	24.8	0	34.6	36.7	7.1	2.6	0	46.4	0	0	0	0	0	0.5	11.8	6.8	0	19.1	
Passenger Cars	39	135	452	0	626	729	144	53	0	926	0	0	0	0	0	10	230	112	0	352	1904
% Passenger Cars																					
Heavy Vehicles	4	26	69	0	99	41	4	1	0	46	0	0	0	0	0	1	17	30	0	48	193
% Heavy Vehicles	9.3	16.1	13.2	0	13.7	5.3	2.7	1.9	0	4.7	0	0	0	0	0	9.1	6.9	21.1	0	12	9.2

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 A
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road SB From North			South Boston Bypass Road From East			Frontage Road SB From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
07:00 AM	327	20	0	0	19	0	0	0	0	366
07:15 AM	303	30	0	0	28	0	0	0	0	361
07:30 AM	324	37	0	0	25	0	0	0	0	386
07:45 AM	322	39	0	0	25	0	0	0	0	386
Total	1276	126	0	0	97	0	0	0	0	1499
08:00 AM	266	46	0	0	26	0	0	0	0	338
08:15 AM	232	36	0	0	17	0	0	0	0	285
08:30 AM	257	53	0	0	30	0	0	0	0	340
08:45 AM	250	32	0	0	33	0	0	0	0	315
Total	1005	167	0	0	106	0	0	0	0	1278
Grand Total	2281	293	0	0	203	0	0	0	0	2777
Apprch %	88.6	11.4	0	0	100	0	0	0	0	
Total %	82.1	10.6	0	0	7.3	0	0	0	0	
Cars	2158	263	0	0	112	0	0	0	0	2533
% Cars	94.6	89.8	0	0	55.2	0	0	0	0	91.2
Heavy Vehicles	123	30	0	0	91	0	0	0	0	244
% Heavy Vehicles	5.4	10.2	0	0	44.8	0	0	0	0	8.8

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:00 AM													
07:00 AM	327	20	0	347	0	19	0	19	0	0	0	0	366
07:15 AM	303	30	0	333	0	28	0	28	0	0	0	0	361
07:30 AM	324	37	0	361	0	25	0	25	0	0	0	0	386
07:45 AM	322	39	0	361	0	25	0	25	0	0	0	0	386
Total Volume	1276	126	0	1402	0	97	0	97	0	0	0	0	1499
% App. Total	91	9	0		0	100	0		0	0	0		
PHF	.976	.808	.000	.971	.000	.866	.000	.866	.000	.000	.000	.000	.971
Cars	1217	115	0	1332	0	61	0	61	0	0	0	0	1393
% Cars	95.4	91.3	0	95.0	0	62.9	0	62.9	0	0	0	0	92.9
Heavy Vehicles	59	11	0	70	0	36	0	36	0	0	0	0	106
% Heavy Vehicles	4.6	8.7	0	5.0	0	37.1	0	37.1	0	0	0	0	7.1

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 B
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road NB From North				South Boston Bypass Road From East				Frontage Road NB From South				South Boston Bypass Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
07:00 AM	0	0	0	0	13	12	0	0	32	390	7	0	0	9	9	0	472
07:15 AM	0	0	0	0	21	23	0	0	26	393	5	0	0	12	16	0	496
07:30 AM	0	0	0	0	12	18	0	0	32	403	6	0	0	14	19	1	505
07:45 AM	0	0	0	0	22	20	0	0	23	382	5	0	0	13	26	0	491
Total	0	0	0	0	68	73	0	0	113	1568	23	0	0	48	70	1	1964
08:00 AM	0	0	0	0	18	18	0	0	29	378	4	0	0	13	32	1	493
08:15 AM	0	0	0	0	22	11	0	0	27	398	5	0	0	9	26	0	498
08:30 AM	0	0	0	0	24	20	0	1	23	395	7	0	0	31	22	0	523
08:45 AM	0	0	0	0	24	19	0	0	24	445	10	0	0	8	20	0	550
Total	0	0	0	0	88	68	0	1	103	1616	26	0	0	61	100	1	2064
Grand Total	0	0	0	0	156	141	0	1	216	3184	49	0	0	109	170	2	4028
Apprch %	0	0	0	0	52.3	47.3	0	0.3	6.3	92.3	1.4	0	0	38.8	60.5	0.7	
Total %	0	0	0	0	3.9	3.5	0	0	5.4	79	1.2	0	0	2.7	4.2	0	
Cars	0	0	0	0	64	78	0	1	127	2981	22	0	0	91	159	2	3525
% Cars	0	0	0	0	41	55.3	0	100	58.8	93.6	44.9	0	0	83.5	93.5	100	87.5
Heavy Vehicles	0	0	0	0	92	63	0	0	89	203	27	0	0	18	11	0	503
% Heavy Vehicles	0	0	0	0	59	44.7	0	0	41.2	6.4	55.1	0	0	16.5	6.5	0	12.5

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	0	0	0	0	0	18	18	0	0	36	29	378	4	0	411	0	13	32	1	46	493
08:15 AM	0	0	0	0	0	22	11	0	0	33	27	398	5	0	430	0	9	26	0	35	498
08:30 AM	0	0	0	0	0	24	20	0	1	45	23	395	7	0	425	0	31	22	0	53	523
08:45 AM	0	0	0	0	0	24	19	0	0	43	24	445	10	0	479	0	8	20	0	28	550
Total Volume	0	0	0	0	0	88	68	0	1	157	103	1616	26	0	1745	0	61	100	1	162	2064
% App. Total	0	0	0	0		56.1	43.3	0	0.6		5.9	92.6	1.5	0		0	37.7	61.7	0.6		
PHF	.000	.000	.000	.000	.000	.917	.850	.000	.250	.872	.888	.908	.650	.000	.911	.000	.492	.781	.250	.764	.938
Cars	0	0	0	0	0	36	29	0	1	66	66	1508	11	0	1585	0	50	93	1	144	1795
% Cars	0	0	0	0	0	40.9	42.6	0	100	42.0	64.1	93.3	42.3	0	90.8	0	82.0	93.0	100	88.9	87.0
Heavy Vehicles	0	0	0	0	0	52	39	0	0	91	37	108	15	0	160	0	11	7	0	18	269
% Heavy Vehicles	0	0	0	0	0	59.1	57.4	0	0	58.0	35.9	6.7	57.7	0	9.2	0	18.0	7.0	0	11.1	13.0

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DD
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	7	162	70	0	120	216	107	0	109	130	69	0	140	174	0	0	1304
04:15 PM	4	186	93	0	85	183	89	0	101	127	80	0	150	173	0	0	1271
04:30 PM	2	171	85	2	86	235	104	3	96	132	62	0	120	197	0	0	1295
04:45 PM	2	171	90	0	117	194	92	0	108	135	80	0	129	156	0	0	1274
Total	15	690	338	2	408	828	392	3	414	524	291	0	539	700	0	0	5144
05:00 PM	1	159	105	0	117	240	109	0	114	112	66	0	114	209	0	0	1346
05:15 PM	1	210	118	1	139	226	94	1	107	152	72	0	117	180	0	0	1418
05:30 PM	0	143	90	0	131	253	111	1	87	120	63	0	129	175	0	0	1303
05:45 PM	6	199	126	0	150	203	69	2	102	132	78	0	129	194	0	0	1390
Total	8	711	439	1	537	922	383	4	410	516	279	0	489	758	0	0	5457
Grand Total	23	1401	777	3	945	1750	775	7	824	1040	570	0	1028	1458	0	0	10601
Apprch %	1	63.6	35.3	0.1	27.2	50.3	22.3	0.2	33.9	42.7	23.4	0	41.4	58.6	0	0	
Total %	0.2	13.2	7.3	0	8.9	16.5	7.3	0.1	7.8	9.8	5.4	0	9.7	13.8	0	0	
Cars	23	1326	750	2	917	1698	710	7	797	992	541	0	993	1388	0	0	10144
% Cars	100	94.6	96.5	66.7	97	97	91.6	100	96.7	95.4	94.9	0	96.6	95.2	0	0	95.7
Heavy Vehicles	0	75	27	1	28	52	65	0	27	48	29	0	35	70	0	0	457
% Heavy Vehicles	0	5.4	3.5	33.3	3	3	8.4	0	3.3	4.6	5.1	0	3.4	4.8	0	0	4.3

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	159	105	0	265	117	240	109	0	466	114	112	66	0	292	114	209	0	0	323	1346
05:15 PM	1	210	118	1	330	139	226	94	1	460	107	152	72	0	331	117	180	0	0	297	1418
05:30 PM	0	143	90	0	233	131	253	111	1	496	87	120	63	0	270	129	175	0	0	304	1303
05:45 PM	6	199	126	0	331	150	203	69	2	424	102	132	78	0	312	129	194	0	0	323	1390
Total Volume	8	711	439	1	1159	537	922	383	4	1846	410	516	279	0	1205	489	758	0	0	1247	5457
% App. Total	0.7	61.3	37.9	0.1		29.1	49.9	20.7	0.2		34	42.8	23.2	0		39.2	60.8	0	0		
PHF	.333	.846	.871	.250	.875	.895	.911	.863	.500	.930	.899	.849	.894	.000	.910	.948	.907	.000	.000	.965	.962
Cars	8	681	429	1	1119	526	900	355	4	1785	393	500	270	0	1163	477	720	0	0	1197	5264
% Cars	100	95.8	97.7	100	96.5	98.0	97.6	92.7	100	96.7	95.9	96.9	96.8	0	96.5	97.5	95.0	0	0	96.0	96.5
Heavy Vehicles	0	30	10	0	40	11	22	28	0	61	17	16	9	0	42	12	38	0	0	50	193
% Heavy Vehicles	0	4.2	2.3	0	3.5	2.0	2.4	7.3	0	3.3	4.1	3.1	3.2	0	3.5	2.5	5.0	0	0	4.0	3.5

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DD
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	7	152	63	0	118	212	99	0	109	123	64	0	134	165	0	0	1246
04:15 PM	4	176	91	0	77	174	83	0	94	117	74	0	141	167	0	0	1198
04:30 PM	2	158	81	1	84	227	92	3	93	122	59	0	114	189	0	0	1225
04:45 PM	2	159	86	0	112	185	81	0	108	130	74	0	127	147	0	0	1211
Total	15	645	321	1	391	798	355	3	404	492	271	0	516	668	0	0	4880
05:00 PM	1	152	101	0	115	233	101	0	112	109	61	0	111	204	0	0	1300
05:15 PM	1	203	115	1	139	218	89	1	100	145	69	0	115	176	0	0	1372
05:30 PM	0	134	88	0	129	248	104	1	85	119	63	0	126	164	0	0	1261
05:45 PM	6	192	125	0	143	201	61	2	96	127	77	0	125	176	0	0	1331
Total	8	681	429	1	526	900	355	4	393	500	270	0	477	720	0	0	5264
Grand Total	23	1326	750	2	917	1698	710	7	797	992	541	0	993	1388	0	0	10144
Apprch %	1.1	63.1	35.7	0.1	27.5	51	21.3	0.2	34.2	42.6	23.2	0	41.7	58.3	0	0	
Total %	0.2	13.1	7.4	0	9	16.7	7	0.1	7.9	9.8	5.3	0	9.8	13.7	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	152	101	0	254	115	233	101	0	449	112	109	61	0	282	111	204	0	0	315	1300
05:15 PM	1	203	115	1	320	139	218	89	1	447	100	145	69	0	314	115	176	0	0	291	1372
05:30 PM	0	134	88	0	222	129	248	104	1	482	85	119	63	0	267	126	164	0	0	290	1261
05:45 PM	6	192	125	0	323	143	201	61	2	407	96	127	77	0	300	125	176	0	0	301	1331
Total Volume	8	681	429	1	1119	526	900	355	4	1785	393	500	270	0	1163	477	720	0	0	1197	5264
% App. Total	0.7	60.9	38.3	0.1		29.5	50.4	19.9	0.2		33.8	43	23.2	0		39.8	60.2	0	0		
PHF	.333	.839	.858	.250	.866	.920	.907	.853	.500	.926	.877	.862	.877	.000	.926	.946	.882	.000	.000	.950	.959

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DD
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	10	7	0	2	4	8	0	0	7	5	0	6	9	0	0	58
04:15 PM	0	10	2	0	8	9	6	0	7	10	6	0	9	6	0	0	73
04:30 PM	0	13	4	1	2	8	12	0	3	10	3	0	6	8	0	0	70
04:45 PM	0	12	4	0	5	9	11	0	0	5	6	0	2	9	0	0	63
Total	0	45	17	1	17	30	37	0	10	32	20	0	23	32	0	0	264
05:00 PM	0	7	4	0	2	7	8	0	2	3	5	0	3	5	0	0	46
05:15 PM	0	7	3	0	0	8	5	0	7	7	3	0	2	4	0	0	46
05:30 PM	0	9	2	0	2	5	7	0	2	1	0	0	3	11	0	0	42
05:45 PM	0	7	1	0	7	2	8	0	6	5	1	0	4	18	0	0	59
Total	0	30	10	0	11	22	28	0	17	16	9	0	12	38	0	0	193
Grand Total	0	75	27	1	28	52	65	0	27	48	29	0	35	70	0	0	457
Apprch %	0	72.8	26.2	1	19.3	35.9	44.8	0	26	46.2	27.9	0	33.3	66.7	0	0	
Total %	0	16.4	5.9	0.2	6.1	11.4	14.2	0	5.9	10.5	6.3	0	7.7	15.3	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	10	7	0	17	2	4	8	0	14	0	7	5	0	12	6	9	0	0	15	58
04:15 PM	0	10	2	0	12	8	9	6	0	23	7	10	6	0	23	9	6	0	0	15	73
04:30 PM	0	13	4	1	18	2	8	12	0	22	3	10	3	0	16	6	8	0	0	14	70
04:45 PM	0	12	4	0	16	5	9	11	0	25	0	5	6	0	11	2	9	0	0	11	63
Total Volume	0	45	17	1	63	17	30	37	0	84	10	32	20	0	62	23	32	0	0	55	264
% App. Total	0	71.4	27	1.6		20.2	35.7	44	0		16.1	51.6	32.3	0		41.8	58.2	0	0		
PHF	.000	.865	.607	.250	.875	.531	.833	.771	.000	.840	.357	.800	.833	.000	.674	.639	.889	.000	.000	.917	.904

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CC
Site Code : 804
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	8	92	0	0	0	0	0	0	0	69	19	0	31	0	41	0	260
04:15 PM	9	84	0	0	0	0	0	0	0	60	17	0	32	0	37	0	239
04:30 PM	9	94	1	0	0	0	0	0	0	68	16	0	33	1	26	0	248
04:45 PM	10	93	0	0	0	0	0	0	0	50	15	0	24	0	29	0	221
Total	36	363	1	0	0	0	0	0	0	247	67	0	120	1	133	0	968
05:00 PM	6	113	1	0	0	0	0	0	0	58	25	0	33	0	38	0	274
05:15 PM	9	133	0	0	0	0	0	0	0	65	11	0	33	0	33	0	284
05:30 PM	12	114	0	0	0	0	0	0	0	61	18	0	31	0	35	0	271
05:45 PM	5	116	0	0	0	0	0	0	0	55	25	0	25	0	22	0	248
Total	32	476	1	0	0	0	0	0	0	239	79	0	122	0	128	0	1077
Grand Total	68	839	2	0	0	0	0	0	0	486	146	0	242	1	261	0	2045
Apprch %	7.5	92.3	0.2	0	0	0	0	0	0	76.9	23.1	0	48	0.2	51.8	0	
Total %	3.3	41	0.1	0	0	0	0	0	0	23.8	7.1	0	11.8	0	12.8	0	
Cars	64	797	2	0	0	0	0	0	0	462	141	0	237	1	252	0	1956
% Cars	94.1	95	100	0	0	0	0	0	0	95.1	96.6	0	97.9	100	96.6	0	95.6
Heavy Vehicles	4	42	0	0	0	0	0	0	0	24	5	0	5	0	9	0	89
% Heavy Vehicles	5.9	5	0	0	0	0	0	0	0	4.9	3.4	0	2.1	0	3.4	0	4.4

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	113	1	0	120	0	0	0	0	0	0	58	25	0	83	33	0	38	0	71	274
05:15 PM	9	133	0	0	142	0	0	0	0	0	0	65	11	0	76	33	0	33	0	66	284
05:30 PM	12	114	0	0	126	0	0	0	0	0	0	61	18	0	79	31	0	35	0	66	271
05:45 PM	5	116	0	0	121	0	0	0	0	0	0	55	25	0	80	25	0	22	0	47	248
Total Volume	32	476	1	0	509	0	0	0	0	0	0	239	79	0	318	122	0	128	0	250	1077
% App. Total	6.3	93.5	0.2	0		0	0	0	0		0	75.2	24.8	0		48.8	0	51.2	0		
PHF	.667	.895	.250	.000	.896	.000	.000	.000	.000	.000	.000	.919	.790	.000	.958	.924	.000	.842	.000	.880	.948
Cars	30	454	1	0	485	0	0	0	0	0	0	226	76	0	302	120	0	125	0	245	1032
% Cars	93.8	95.4	100	0	95.3	0	0	0	0	0	0	94.6	96.2	0	95.0	98.4	0	97.7	0	98.0	95.8
Heavy Vehicles	2	22	0	0	24	0	0	0	0	0	0	13	3	0	16	2	0	3	0	5	45
% Heavy Vehicles	6.3	4.6	0	0	4.7	0	0	0	0	0	0	5.4	3.8	0	5.0	1.6	0	2.3	0	2.0	4.2

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CC
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	7	89	0	0	0	0	0	0	0	66	19	0	30	0	40	0	251
04:15 PM	9	80	0	0	0	0	0	0	0	58	16	0	31	0	35	0	229
04:30 PM	9	87	1	0	0	0	0	0	0	65	16	0	33	1	25	0	237
04:45 PM	9	87	0	0	0	0	0	0	0	47	14	0	23	0	27	0	207
Total	34	343	1	0	0	0	0	0	0	236	65	0	117	1	127	0	924
05:00 PM	6	108	1	0	0	0	0	0	0	53	24	0	33	0	37	0	262
05:15 PM	8	130	0	0	0	0	0	0	0	62	10	0	33	0	32	0	275
05:30 PM	11	106	0	0	0	0	0	0	0	59	18	0	30	0	34	0	258
05:45 PM	5	110	0	0	0	0	0	0	0	52	24	0	24	0	22	0	237
Total	30	454	1	0	0	0	0	0	0	226	76	0	120	0	125	0	1032
Grand Total	64	797	2	0	0	0	0	0	0	462	141	0	237	1	252	0	1956
Apprch %	7.4	92.4	0.2	0	0	0	0	0	0	76.6	23.4	0	48.4	0.2	51.4	0	
Total %	3.3	40.7	0.1	0	0	0	0	0	0	23.6	7.2	0	12.1	0.1	12.9	0	

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	108	1	0	115	0	0	0	0	0	0	53	24	0	77	33	0	37	0	70	262
05:15 PM	8	130	0	0	138	0	0	0	0	0	0	62	10	0	72	33	0	32	0	65	275
05:30 PM	11	106	0	0	117	0	0	0	0	0	0	59	18	0	77	30	0	34	0	64	258
05:45 PM	5	110	0	0	115	0	0	0	0	0	0	52	24	0	76	24	0	22	0	46	237
Total Volume	30	454	1	0	485	0	0	0	0	0	0	226	76	0	302	120	0	125	0	245	1032
% App. Total	6.2	93.6	0.2	0		0	0	0	0		0	74.8	25.2	0		49	0	51	0		
PHF	.682	.873	.250	.000	.879	.000	.000	.000	.000	.000	.000	.911	.792	.000	.981	.909	.000	.845	.000	.875	.938

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E/W: Magazine Street
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Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CC
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Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	3	0	0	0	0	0	0	0	3	0	0	1	0	1	0	9
04:15 PM	0	4	0	0	0	0	0	0	0	2	1	0	1	0	2	0	10
04:30 PM	0	7	0	0	0	0	0	0	0	3	0	0	0	0	1	0	11
04:45 PM	1	6	0	0	0	0	0	0	0	3	1	0	1	0	2	0	14
Total	2	20	0	0	0	0	0	0	0	11	2	0	3	0	6	0	44
05:00 PM	0	5	0	0	0	0	0	0	0	5	1	0	0	0	1	0	12
05:15 PM	1	3	0	0	0	0	0	0	0	3	1	0	0	0	1	0	9
05:30 PM	1	8	0	0	0	0	0	0	0	2	0	0	1	0	1	0	13
05:45 PM	0	6	0	0	0	0	0	0	0	3	1	0	1	0	0	0	11
Total	2	22	0	0	0	0	0	0	0	13	3	0	2	0	3	0	45
Grand Total	4	42	0	0	0	0	0	0	0	24	5	0	5	0	9	0	89
Apprch %	8.7	91.3	0	0	0	0	0	0	0	82.8	17.2	0	35.7	0	64.3	0	
Total %	4.5	47.2	0	0	0	0	0	0	0	27	5.6	0	5.6	0	10.1	0	

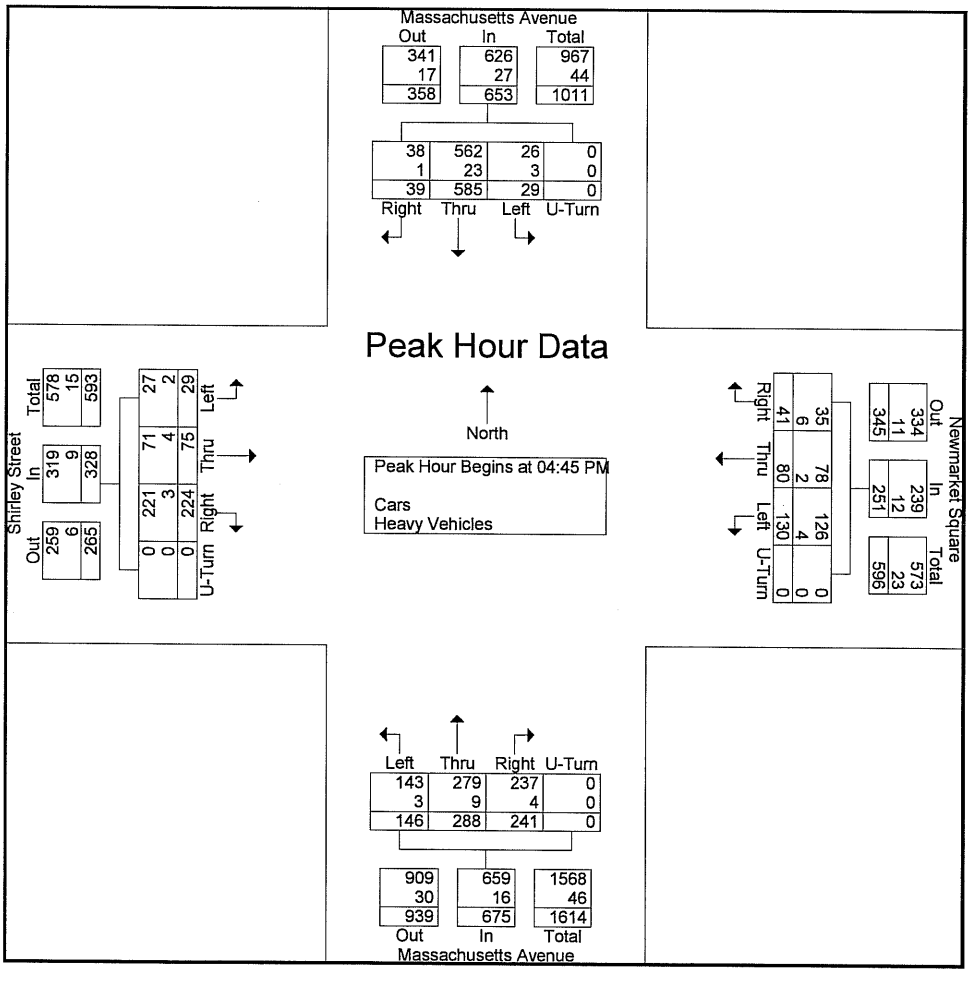
	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	6	0	0	7	0	0	0	0	0	0	3	1	0	4	1	0	2	0	3	14
05:00 PM	0	5	0	0	5	0	0	0	0	0	0	5	1	0	6	0	0	1	0	1	12
05:15 PM	1	3	0	0	4	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	9
05:30 PM	1	8	0	0	9	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	13
Total Volume	3	22	0	0	25	0	0	0	0	0	0	13	3	0	16	2	0	5	0	7	48
% App. Total	12	88	0	0		0	0	0	0		0	81.2	18.8	0		28.6	0	71.4	0		
PHF	.750	.688	.000	.000	.694	.000	.000	.000	.000	.000	.000	.650	.750	.000	.667	.500	.000	.625	.000	.583	.857

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	10	129	8	0	147	18	24	41	0	83	75	65	40	0	180	64	13	9	0	86	496
05:00 PM	8	148	10	0	166	10	20	35	0	65	56	77	37	0	170	53	24	8	0	85	486
05:15 PM	11	170	3	0	184	7	17	31	0	55	45	73	27	0	145	59	16	4	0	79	463
05:30 PM	10	138	8	0	156	6	19	23	0	48	65	73	42	0	180	48	22	8	0	78	462
Total Volume	39	585	29	0	653	41	80	130	0	251	241	288	146	0	675	224	75	29	0	328	1907
% App. Total	6	89.6	4.4	0		16.3	31.9	51.8	0		35.7	42.7	21.6	0		68.3	22.9	8.8	0		
PHF	.886	.860	.725	.000	.887	.569	.833	.793	.000	.756	.803	.935	.869	.000	.938	.875	.781	.806	.000	.953	.961
Cars	38	562	26	0	626	35	78	126	0	239	237	279	143	0	659	221	71	27	0	319	1843
% Cars	97.4	96.1	89.7	0	95.9	85.4	97.5	96.9	0	95.2	98.3	96.9	97.9	0	97.6	98.7	94.7	93.1	0	97.3	96.6
Heavy Vehicles	1	23	3	0	27	6	2	4	0	12	4	9	3	0	16	3	4	2	0	9	64
% Heavy Vehicles	2.6	3.9	10.3	0	4.1	14.6	2.5	3.1	0	4.8	1.7	3.1	2.1	0	2.4	1.3	5.3	6.9	0	2.7	3.4



N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	3	128	9	0	8	23	53	0	50	82	40	0	47	22	5	0	470
04:15 PM	11	110	6	0	10	22	44	0	59	68	38	0	61	19	5	0	453
04:30 PM	13	126	4	0	12	16	40	0	50	67	45	0	46	13	5	0	437
04:45 PM	10	129	8	0	18	24	41	0	75	65	40	0	64	13	9	0	496
Total	37	493	27	0	48	85	178	0	234	282	163	0	218	67	24	0	1856
05:00 PM	8	148	10	0	10	20	35	0	56	77	37	0	53	24	8	0	486
05:15 PM	11	170	3	0	7	17	31	0	45	73	27	0	59	16	4	0	463
05:30 PM	10	138	8	0	6	19	23	0	65	73	42	0	48	22	8	0	462
05:45 PM	9	142	8	0	10	15	20	0	56	76	44	0	48	9	1	0	438
Total	38	598	29	0	33	71	109	0	222	299	150	0	208	71	21	0	1849
Grand Total	75	1091	56	0	81	156	287	0	456	581	313	0	426	138	45	0	3705
Apprch %	6.1	89.3	4.6	0	15.5	29.8	54.8	0	33.8	43	23.2	0	70	22.7	7.4	0	
Total %	2	29.4	1.5	0	2.2	4.2	7.7	0	12.3	15.7	8.4	0	11.5	3.7	1.2	0	
Cars	71	1054	49	0	72	151	277	0	443	563	310	0	422	131	42	0	3585
% Cars	94.7	96.6	87.5	0	88.9	96.8	96.5	0	97.1	96.9	99	0	99.1	94.9	93.3	0	96.8
Heavy Vehicles	4	37	7	0	9	5	10	0	13	18	3	0	4	7	3	0	120
% Heavy Vehicles	5.3	3.4	12.5	0	11.1	3.2	3.5	0	2.9	3.1	1	0	0.9	5.1	6.7	0	3.2

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	10	129	8	0	147	18	24	41	0	83	75	65	40	0	180	64	13	9	0	86	496
05:00 PM	8	148	10	0	166	10	20	35	0	65	56	77	37	0	170	53	24	8	0	85	486
05:15 PM	11	170	3	0	184	7	17	31	0	55	45	73	27	0	145	59	16	4	0	79	463
05:30 PM	10	138	8	0	156	6	19	23	0	48	65	73	42	0	180	48	22	8	0	78	462
Total Volume	39	585	29	0	653	41	80	130	0	251	241	288	146	0	675	224	75	29	0	328	1907
% App. Total	6	89.6	4.4	0		16.3	31.9	51.8	0		35.7	42.7	21.6	0		68.3	22.9	8.8	0		
PHF	.886	.860	.725	.000	.887	.569	.833	.793	.000	.756	.803	.935	.869	.000	.938	.875	.781	.806	.000	.953	.961
Cars	38	562	26	0	626	35	78	126	0	239	237	279	143	0	659	221	71	27	0	319	1843
% Cars	97.4	96.1	89.7	0	95.9	85.4	97.5	96.9	0	95.2	98.3	96.9	97.9	0	97.6	98.7	94.7	93.1	0	97.3	96.6
Heavy Vehicles	1	23	3	0	27	6	2	4	0	12	4	9	3	0	16	3	4	2	0	9	64
% Heavy Vehicles	2.6	3.9	10.3	0	4.1	14.6	2.5	3.1	0	4.8	1.7	3.1	2.1	0	2.4	1.3	5.3	6.9	0	2.7	3.4

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MM
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	3	125	8	0	8	23	53	0	49	79	40	0	47	22	5	0	462
04:15 PM	9	108	6	0	9	20	41	0	56	66	38	0	61	17	4	0	435
04:30 PM	13	121	3	0	11	15	38	0	48	65	45	0	46	13	5	0	423
04:45 PM	9	121	8	0	16	22	39	0	73	63	38	0	64	13	9	0	475
Total	34	475	25	0	44	80	171	0	226	273	161	0	218	65	23	0	1795
05:00 PM	8	145	8	0	8	20	33	0	56	74	36	0	51	23	7	0	469
05:15 PM	11	166	3	0	5	17	31	0	44	70	27	0	58	13	4	0	449
05:30 PM	10	130	7	0	6	19	23	0	64	72	42	0	48	22	7	0	450
05:45 PM	8	138	6	0	9	15	19	0	53	74	44	0	47	8	1	0	422
Total	37	579	24	0	28	71	106	0	217	290	149	0	204	66	19	0	1790
Grand Total	71	1054	49	0	72	151	277	0	443	563	310	0	422	131	42	0	3585
Apprch %	6	89.8	4.2	0	14.4	30.2	55.4	0	33.7	42.8	23.6	0	70.9	22	7.1	0	
Total %	2	29.4	1.4	0	2	4.2	7.7	0	12.4	15.7	8.6	0	11.8	3.7	1.2	0	

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	9	121	8	0	138	16	22	39	0	77	73	63	38	0	174	64	13	9	0	86	475
05:00 PM	8	145	8	0	161	8	20	33	0	61	56	74	36	0	166	51	23	7	0	81	469
05:15 PM	11	166	3	0	180	5	17	31	0	53	44	70	27	0	141	58	13	4	0	75	449
05:30 PM	10	130	7	0	147	6	19	23	0	48	64	72	42	0	178	48	22	7	0	77	450
Total Volume	38	562	26	0	626	35	78	126	0	239	237	279	143	0	659	221	71	27	0	319	1843
% App. Total	6.1	89.8	4.2	0		14.6	32.6	52.7	0		36	42.3	21.7	0		69.3	22.3	8.5	0		
PHF	.864	.846	.813	.000	.869	.547	.886	.808	.000	.776	.812	.943	.851	.000	.926	.863	.772	.750	.000	.927	.970

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MM
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	3	1	0	0	0	0	0	1	3	0	0	0	0	0	0	8
04:15 PM	2	2	0	0	1	2	3	0	3	2	0	0	0	2	1	0	18
04:30 PM	0	5	1	0	1	1	2	0	2	2	0	0	0	0	0	0	14
04:45 PM	1	8	0	0	2	2	2	0	2	2	2	0	0	0	0	0	21
Total	3	18	2	0	4	5	7	0	8	9	2	0	0	2	1	0	61
05:00 PM	0	3	2	0	2	0	2	0	0	3	1	0	2	1	1	0	17
05:15 PM	0	4	0	0	2	0	0	0	1	3	0	0	1	3	0	0	14
05:30 PM	0	8	1	0	0	0	0	0	1	1	0	0	0	0	1	0	12
05:45 PM	1	4	2	0	1	0	1	0	3	2	0	0	1	1	0	0	16
Total	1	19	5	0	5	0	3	0	5	9	1	0	4	5	2	0	59
Grand Total	4	37	7	0	9	5	10	0	13	18	3	0	4	7	3	0	120
Apprch %	8.3	77.1	14.6	0	37.5	20.8	41.7	0	38.2	52.9	8.8	0	28.6	50	21.4	0	
Total %	3.3	30.8	5.8	0	7.5	4.2	8.3	0	10.8	15	2.5	0	3.3	5.8	2.5	0	

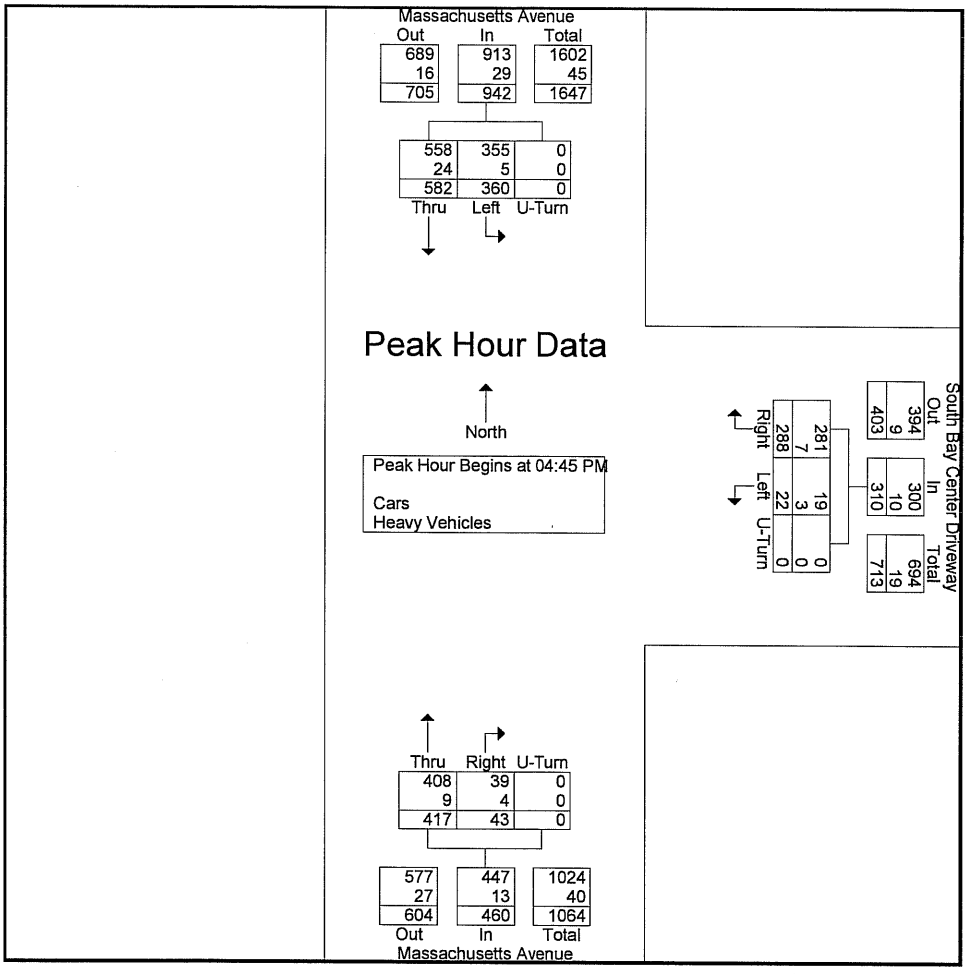
	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	2	2	0	0	4	1	2	3	0	6	3	2	0	0	5	0	2	1	0	3	18
04:30 PM	0	5	1	0	6	1	1	2	0	4	2	2	0	0	4	0	0	0	0	0	14
04:45 PM	1	8	0	0	9	2	2	2	0	6	2	2	2	0	6	0	0	0	0	0	21
05:00 PM	0	3	2	0	5	2	0	2	0	4	0	3	1	0	4	2	1	1	0	4	17
Total Volume	3	18	3	0	24	6	5	9	0	20	7	9	3	0	19	2	3	2	0	7	70
% App. Total	12.5	75	12.5	0		30	25	45	0		36.8	47.4	15.8	0		28.6	42.9	28.6	0		
PHF	.375	.563	.375	.000	.667	.750	.625	.750	.000	.833	.583	.750	.375	.000	.792	.250	.375	.500	.000	.438	.833

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 NN
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	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	131	95	0	226	67	5	0	72	16	127	0	143	441
05:00 PM	148	89	0	237	76	6	0	82	12	94	0	106	425
05:15 PM	172	96	0	268	64	5	0	69	5	84	0	89	426
05:30 PM	131	80	0	211	81	6	0	87	10	112	0	122	420
Total Volume	582	360	0	942	288	22	0	310	43	417	0	460	1712
% App. Total	61.8	38.2	0		92.9	7.1	0		9.3	90.7	0		
PHF	.846	.938	.000	.879	.889	.917	.000	.891	.672	.821	.000	.804	.971
Cars	558	355	0	913	281	19	0	300	39	408	0	447	1660
% Cars	95.9	98.6	0	96.9	97.6	86.4	0	96.8	90.7	97.8	0	97.2	97.0
Heavy Vehicles	24	5	0	29	7	3	0	10	4	9	0	13	52
% Heavy Vehicles	4.1	1.4	0	3.1	2.4	13.6	0	3.2	9.3	2.2	0	2.8	3.0



N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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Office: 508.481.3999 Fax: 508.545.1234
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	140	93	0	79	4	0	13	109	0	438
04:15 PM	128	84	0	58	6	0	7	119	0	402
04:30 PM	112	102	0	55	4	0	15	116	0	404
04:45 PM	131	95	0	67	5	0	16	127	0	441
Total	511	374	0	259	19	0	51	471	0	1685
05:00 PM	148	89	0	76	6	0	12	94	0	425
05:15 PM	172	96	0	64	5	0	5	84	0	426
05:30 PM	131	80	0	81	6	0	10	112	0	420
05:45 PM	132	80	0	83	2	0	9	107	0	413
Total	583	345	0	304	19	0	36	397	0	1684
Grand Total	1094	719	0	563	38	0	87	868	0	3369
Apprch %	60.3	39.7	0	93.7	6.3	0	9.1	90.9	0	
Total %	32.5	21.3	0	16.7	1.1	0	2.6	25.8	0	
Cars	1051	711	0	552	35	0	79	848	0	3276
% Cars	96.1	98.9	0	98	92.1	0	90.8	97.7	0	97.2
Heavy Vehicles	43	8	0	11	3	0	8	20	0	93
% Heavy Vehicles	3.9	1.1	0	2	7.9	0	9.2	2.3	0	2.8

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	131	95	0	226	67	5	0	72	16	127	0	143	441
05:00 PM	148	89	0	237	76	6	0	82	12	94	0	106	425
05:15 PM	172	96	0	268	64	5	0	69	5	84	0	89	426
05:30 PM	131	80	0	211	81	6	0	87	10	112	0	122	420
Total Volume	582	360	0	942	288	22	0	310	43	417	0	460	1712
% App. Total	61.8	38.2	0		92.9	7.1	0		9.3	90.7	0		
PHF	.846	.938	.000	.879	.889	.917	.000	.891	.672	.821	.000	.804	.971
Cars	558	355	0	913	281	19	0	300	39	408	0	447	1660
% Cars	95.9	98.6	0	96.9	97.6	86.4	0	96.8	90.7	97.8	0	97.2	97.0
Heavy Vehicles	24	5	0	29	7	3	0	10	4	9	0	13	52
% Heavy Vehicles	4.1	1.4	0	3.1	2.4	13.6	0	3.2	9.3	2.2	0	2.8	3.0

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Cars

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	137	93	0	77	4	0	12	108	0	431
04:15 PM	124	83	0	58	6	0	7	116	0	394
04:30 PM	106	101	0	53	4	0	13	114	0	391
04:45 PM	123	93	0	65	5	0	15	124	0	425
Total	490	370	0	253	19	0	47	462	0	1641
05:00 PM	141	89	0	75	5	0	11	90	0	411
05:15 PM	169	94	0	63	4	0	3	82	0	415
05:30 PM	125	79	0	78	5	0	10	112	0	409
05:45 PM	126	79	0	83	2	0	8	102	0	400
Total	561	341	0	299	16	0	32	386	0	1635
Grand Total	1051	711	0	552	35	0	79	848	0	3276
Apprch %	59.6	40.4	0	94	6	0	8.5	91.5	0	
Total %	32.1	21.7	0	16.8	1.1	0	2.4	25.9	0	

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:45 PM													
04:45 PM	123	93	0	216	65	5	0	70	15	124	0	139	425
05:00 PM	141	89	0	230	75	5	0	80	11	90	0	101	411
05:15 PM	169	94	0	263	63	4	0	67	3	82	0	85	415
05:30 PM	125	79	0	204	78	5	0	83	10	112	0	122	409
Total Volume	558	355	0	913	281	19	0	300	39	408	0	447	1660
% App. Total	61.1	38.9	0		93.7	6.3	0		8.7	91.3	0		
PHF	.825	.944	.000	.868	.901	.950	.000	.904	.650	.823	.000	.804	.976

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	3	0	0	2	0	0	1	1	0	7
04:15 PM	4	1	0	0	0	0	0	3	0	8
04:30 PM	6	1	0	2	0	0	2	2	0	13
04:45 PM	8	2	0	2	0	0	1	3	0	16
Total	21	4	0	6	0	0	4	9	0	44
05:00 PM	7	0	0	1	1	0	1	4	0	14
05:15 PM	3	2	0	1	1	0	2	2	0	11
05:30 PM	6	1	0	3	1	0	0	0	0	11
05:45 PM	6	1	0	0	0	0	1	5	0	13
Total	22	4	0	5	3	0	4	11	0	49
Grand Total	43	8	0	11	3	0	8	20	0	93
Apprch %	84.3	15.7	0	78.6	21.4	0	28.6	71.4	0	
Total %	46.2	8.6	0	11.8	3.2	0	8.6	21.5	0	

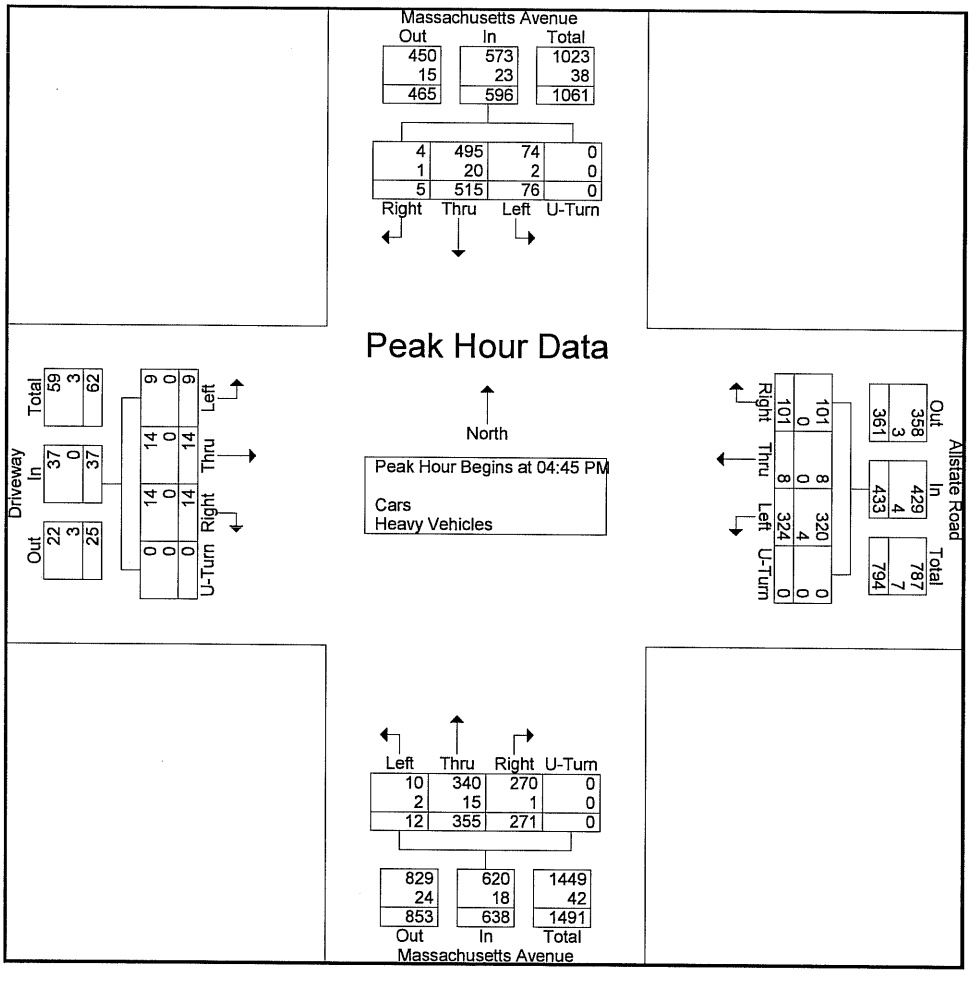
	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	6	1	0	7	2	0	0	2	2	2	0	4	13
04:45 PM	8	2	0	10	2	0	0	2	1	3	0	4	16
05:00 PM	7	0	0	7	1	1	0	2	1	4	0	5	14
05:15 PM	3	2	0	5	1	1	0	2	2	2	0	4	11
Total Volume	24	5	0	29	6	2	0	8	6	11	0	17	54
% App. Total	82.8	17.2	0		75	25	0		35.3	64.7	0		
PHF	.750	.625	.000	.725	.750	.500	.000	1.00	.750	.688	.000	.850	.844

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	121	16	0	138	28	0	78	0	106	70	117	1	0	188	3	6	3	0	12	444
05:00 PM	0	120	28	0	148	20	0	72	0	92	58	84	1	0	143	4	2	3	0	9	392
05:15 PM	1	147	15	0	163	20	2	103	0	125	63	69	4	0	136	3	1	3	0	7	431
05:30 PM	3	127	17	0	147	33	6	71	0	110	80	85	6	0	171	4	5	0	0	9	437
Total Volume	5	515	76	0	596	101	8	324	0	433	271	355	12	0	638	14	14	9	0	37	1704
% App. Total	0.8	86.4	12.8	0		23.3	1.8	74.8	0		42.5	55.6	1.9	0		37.8	37.8	24.3	0		
PHF	.417	.876	.679	.000	.914	.765	.333	.786	.000	.866	.847	.759	.500	.000	.848	.875	.583	.750	.000	.771	.959
Cars	4	495	74	0	573	101	8	320	0	429	270	340	10	0	620	14	14	9	0	37	1659
% Cars	80.0	96.1	97.4	0	96.1	100	100	98.8	0	99.1	99.6	95.8	83.3	0	97.2	100	100	100	0	100	97.4
Heavy Vehicles	1	20	2	0	23	0	0	4	0	4	1	15	2	0	18	0	0	0	0	0	45
% Heavy Vehicles	20.0	3.9	2.6	0	3.9	0	0	1.2	0	0.9	0.4	4.2	16.7	0	2.8	0	0	0	0	0	2.6



N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 BB
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	125	17	0	23	1	61	0	72	91	0	0	12	3	6	0	411
04:15 PM	0	126	15	0	24	1	76	0	50	101	0	0	8	3	2	0	406
04:30 PM	0	97	18	0	26	0	80	0	62	101	1	0	1	3	3	0	392
04:45 PM	1	121	16	0	28	0	78	0	70	117	1	0	3	6	3	0	444
Total	1	469	66	0	101	2	295	0	254	410	2	0	24	15	14	0	1653
05:00 PM	0	120	28	0	20	0	72	0	58	84	1	0	4	2	3	0	392
05:15 PM	1	147	15	0	20	2	103	0	63	69	4	0	3	1	3	0	431
05:30 PM	3	127	17	0	33	6	71	0	80	85	6	0	4	5	0	0	437
05:45 PM	3	110	17	0	21	2	79	0	65	93	2	0	8	1	6	0	407
Total	7	504	77	0	94	10	325	0	266	331	13	0	19	9	12	0	1667
Grand Total	8	973	143	0	195	12	620	0	520	741	15	0	43	24	26	0	3320
Apprch %	0.7	86.6	12.7	0	23.6	1.5	75	0	40.8	58.1	1.2	0	46.2	25.8	28	0	
Total %	0.2	29.3	4.3	0	5.9	0.4	18.7	0	15.7	22.3	0.5	0	1.3	0.7	0.8	0	
Cars	7	937	140	0	194	12	610	0	516	712	12	0	39	24	22	0	3225
% Cars	87.5	96.3	97.9	0	99.5	100	98.4	0	99.2	96.1	80	0	90.7	100	84.6	0	97.1
Heavy Vehicles	1	36	3	0	1	0	10	0	4	29	3	0	4	0	4	0	95
% Heavy Vehicles	12.5	3.7	2.1	0	0.5	0	1.6	0	0.8	3.9	20	0	9.3	0	15.4	0	2.9

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	121	16	0	138	28	0	78	0	106	70	117	1	0	188	3	6	3	0	12	444
05:00 PM	0	120	28	0	148	20	0	72	0	92	58	84	1	0	143	4	2	3	0	9	392
05:15 PM	1	147	15	0	163	20	2	103	0	125	63	69	4	0	136	3	1	3	0	7	431
05:30 PM	3	127	17	0	147	33	6	71	0	110	80	85	6	0	171	4	5	0	0	9	437
Total Volume	5	515	76	0	596	101	8	324	0	433	271	355	12	0	638	14	14	9	0	37	1704
% App. Total	0.8	86.4	12.8	0		23.3	1.8	74.8	0		42.5	55.6	1.9	0		37.8	37.8	24.3	0		
PHF	.417	.876	.679	.000	.914	.765	.333	.786	.000	.866	.847	.759	.500	.000	.848	.875	.583	.750	.000	.771	.959
Cars	4	495	74	0	573	101	8	320	0	429	270	340	10	0	620	14	14	9	0	37	1659
% Cars	80.0	96.1	97.4	0	96.1	100	100	98.8	0	99.1	99.6	95.8	83.3	0	97.2	100	100	100	0	100	97.4
Heavy Vehicles	1	20	2	0	23	0	0	4	0	4	1	15	2	0	18	0	0	0	0	0	45
% Heavy Vehicles	20.0	3.9	2.6	0	3.9	0	0	1.2	0	0.9	0.4	4.2	16.7	0	2.8	0	0	0	0	0	2.6

PRECISION
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INDUSTRIES, LLC
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Email: datarequests@pdillc.com

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

File Name : 144163 BB
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	123	16	0	23	1	59	0	72	89	0	0	10	3	5	0	401
04:15 PM	0	122	15	0	23	1	75	0	48	96	0	0	6	3	1	0	390
04:30 PM	0	91	18	0	26	0	78	0	61	99	1	0	1	3	2	0	380
04:45 PM	1	115	14	0	28	0	78	0	69	110	1	0	3	6	3	0	428
Total	1	451	63	0	100	2	290	0	250	394	2	0	20	15	11	0	1599
05:00 PM	0	113	28	0	20	0	71	0	58	80	1	0	4	2	3	0	380
05:15 PM	1	144	15	0	20	2	101	0	63	66	4	0	3	1	3	0	423
05:30 PM	2	123	17	0	33	6	70	0	80	84	4	0	4	5	0	0	428
05:45 PM	3	106	17	0	21	2	78	0	65	88	1	0	8	1	5	0	395
Total	6	486	77	0	94	10	320	0	266	318	10	0	19	9	11	0	1626
Grand Total	7	937	140	0	194	12	610	0	516	712	12	0	39	24	22	0	3225
Apprch %	0.6	86.4	12.9	0	23.8	1.5	74.8	0	41.6	57.4	1	0	45.9	28.2	25.9	0	
Total %	0.2	29.1	4.3	0	6	0.4	18.9	0	16	22.1	0.4	0	1.2	0.7	0.7	0	

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	115	14	0	130	28	0	78	0	106	69	110	1	0	180	3	6	3	0	12	428
05:00 PM	0	113	28	0	141	20	0	71	0	91	58	80	1	0	139	4	2	3	0	9	380
05:15 PM	1	144	15	0	160	20	2	101	0	123	63	66	4	0	133	3	1	3	0	7	423
05:30 PM	2	123	17	0	142	33	6	70	0	109	80	84	4	0	168	4	5	0	0	9	428
Total Volume	4	495	74	0	573	101	8	320	0	429	270	340	10	0	620	14	14	9	0	37	1659
% App. Total	0.7	86.4	12.9	0		23.5	1.9	74.6	0		43.5	54.8	1.6	0		37.8	37.8	24.3	0		
PHF	.500	.859	.661	.000	.895	.765	.333	.792	.000	.872	.844	.773	.625	.000	.861	.875	.583	.750	.000	.771	.969

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 BB
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	2	1	0	0	0	2	0	0	2	0	0	2	0	1	0	10
04:15 PM	0	4	0	0	1	0	1	0	2	5	0	0	2	0	1	0	16
04:30 PM	0	6	0	0	0	0	2	0	1	2	0	0	0	0	1	0	12
04:45 PM	0	6	2	0	0	0	0	0	1	7	0	0	0	0	0	0	16
Total	0	18	3	0	1	0	5	0	4	16	0	0	4	0	3	0	54
05:00 PM	0	7	0	0	0	0	1	0	0	4	0	0	0	0	0	0	12
05:15 PM	0	3	0	0	0	0	2	0	0	3	0	0	0	0	0	0	8
05:30 PM	1	4	0	0	0	0	1	0	0	1	2	0	0	0	0	0	9
05:45 PM	0	4	0	0	0	0	1	0	0	5	1	0	0	0	1	0	12
Total	1	18	0	0	0	0	5	0	0	13	3	0	0	0	1	0	41
Grand Total	1	36	3	0	1	0	10	0	4	29	3	0	4	0	4	0	95
Apprch %	2.5	90	7.5	0	9.1	0	90.9	0	11.1	80.6	8.3	0	50	0	50	0	
Total %	1.1	37.9	3.2	0	1.1	0	10.5	0	4.2	30.5	3.2	0	4.2	0	4.2	0	

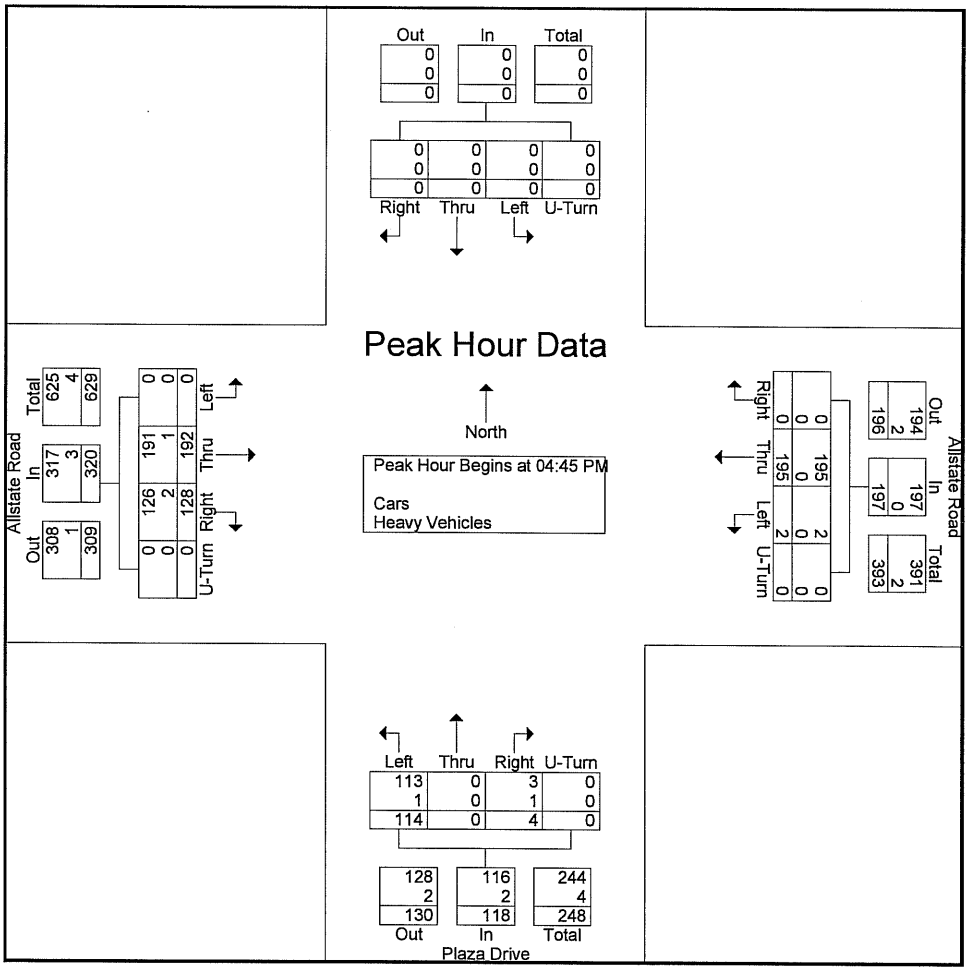
	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	4	0	0	4	1	0	1	0	2	2	5	0	0	7	2	0	1	0	3	16
04:30 PM	0	6	0	0	6	0	0	2	0	2	1	2	0	0	3	0	0	1	0	1	12
04:45 PM	0	6	2	0	8	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	16
05:00 PM	0	7	0	0	7	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	12
Total Volume	0	23	2	0	25	1	0	4	0	5	4	18	0	0	22	2	0	2	0	4	56
% App. Total	0	92	8	0		20	0	80	0		18.2	81.8	0	0		50	0	50	0		
PHF	.000	.821	.250	.000	.781	.250	.000	.500	.000	.625	.500	.643	.000	.000	.688	.250	.000	.500	.000	.333	.875

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 II
Site Code : 804
Start Date : 11/13/2014
Page No : 1

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	45	1	0	46	1	0	34	0	35	34	56	0	0	90	171
05:00 PM	0	0	0	0	0	0	60	0	0	60	0	0	19	0	19	39	37	0	0	76	155
05:15 PM	0	0	0	0	0	0	46	1	0	47	2	0	32	0	34	23	40	0	0	63	144
05:30 PM	0	0	0	0	0	0	44	0	0	44	1	0	29	0	30	32	59	0	0	91	165
Total Volume	0	0	0	0	0	0	195	2	0	197	4	0	114	0	118	128	192	0	0	320	635
% App. Total	0	0	0	0		0	99	1	0		3.4	0	96.6	0		40	60	0	0		
PHF	.000	.000	.000	.000	.000	.000	.813	.500	.000	.821	.500	.000	.838	.000	.843	.821	.814	.000	.000	.879	.928
Cars	0	0	0	0	0	0	195	2	0	197	3	0	113	0	116	126	191	0	0	317	630
% Cars	0	0	0	0	0	0	100	100	0	100	75.0	0	99.1	0	98.3	98.4	99.5	0	0	99.1	99.2
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	1	0	0	3	5
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	25.0	0	0.9	0	1.7	1.6	0.5	0	0	0.9	0.8



S: Plaza Drive
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Groups Printed- Cars - Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	31	0	0	0	0	27	0	35	43	0	0	136
04:15 PM	0	0	0	0	0	64	0	0	1	0	24	0	30	29	0	0	148
04:30 PM	0	0	0	0	0	46	0	0	0	0	24	0	22	35	0	0	127
04:45 PM	0	0	0	0	0	45	1	0	1	0	34	0	34	56	0	0	171
Total	0	0	0	0	0	186	1	0	2	0	109	0	121	163	0	0	582
05:00 PM	0	0	0	0	0	60	0	0	0	0	19	0	39	37	0	0	155
05:15 PM	0	0	0	0	0	46	1	0	2	0	32	0	23	40	0	0	144
05:30 PM	0	0	0	0	0	44	0	0	1	0	29	0	32	59	0	0	165
05:45 PM	0	0	0	0	0	47	0	0	1	0	27	0	27	37	0	0	139
Total	0	0	0	0	0	197	1	0	4	0	107	0	121	173	0	0	603
Grand Total	0	0	0	0	0	383	2	0	6	0	216	0	242	336	0	0	1185
Apprch %	0	0	0	0	0	99.5	0.5	0	2.7	0	97.3	0	41.9	58.1	0	0	
Total %	0	0	0	0	0	32.3	0.2	0	0.5	0	18.2	0	20.4	28.4	0	0	
Cars	0	0	0	0	0	383	2	0	5	0	213	0	239	334	0	0	1176
% Cars	0	0	0	0	0	100	100	0	83.3	0	98.6	0	98.8	99.4	0	0	99.2
Heavy Vehicles	0	0	0	0	0	0	0	0	1	0	3	0	3	2	0	0	9
% Heavy Vehicles	0	0	0	0	0	0	0	0	16.7	0	1.4	0	1.2	0.6	0	0	0.8

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	45	1	0	46	1	0	34	0	35	34	56	0	0	90	171
05:00 PM	0	0	0	0	0	0	60	0	0	60	0	0	19	0	19	39	37	0	0	76	155
05:15 PM	0	0	0	0	0	0	46	1	0	47	2	0	32	0	34	23	40	0	0	63	144
05:30 PM	0	0	0	0	0	0	44	0	0	44	1	0	29	0	30	32	59	0	0	91	165
Total Volume	0	0	0	0	0	0	195	2	0	197	4	0	114	0	118	128	192	0	0	320	635
% App. Total	0	0	0	0		0	99	1	0		3.4	0	96.6	0		40	60	0	0		
PHF	.000	.000	.000	.000	.000	.000	.813	.500	.000	.821	.500	.000	.838	.000	.843	.821	.814	.000	.000	.879	.928
Cars	0	0	0	0	0	0	195	2	0	197	3	0	113	0	116	126	191	0	0	317	630
% Cars	0	0	0	0	0	0	100	100	0	100	75.0	0	99.1	0	98.3	98.4	99.5	0	0	99.1	99.2
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	1	0	0	3	5
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	25.0	0	0.9	0	1.7	1.6	0.5	0	0	0.9	0.8

S: Plaza Drive
E/W: Allstate Road
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File Name : 144163 II
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Page No : 1

Groups Printed- Cars

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	31	0	0	0	0	27	0	35	43	0	0	136
04:15 PM	0	0	0	0	0	64	0	0	1	0	24	0	30	28	0	0	147
04:30 PM	0	0	0	0	0	46	0	0	0	0	23	0	22	35	0	0	126
04:45 PM	0	0	0	0	0	45	1	0	0	0	34	0	32	55	0	0	167
Total	0	0	0	0	0	186	1	0	1	0	108	0	119	161	0	0	576
05:00 PM	0	0	0	0	0	60	0	0	0	0	19	0	39	37	0	0	155
05:15 PM	0	0	0	0	0	46	1	0	2	0	31	0	23	40	0	0	143
05:30 PM	0	0	0	0	0	44	0	0	1	0	29	0	32	59	0	0	165
05:45 PM	0	0	0	0	0	47	0	0	1	0	26	0	26	37	0	0	137
Total	0	0	0	0	0	197	1	0	4	0	105	0	120	173	0	0	600
Grand Total	0	0	0	0	0	383	2	0	5	0	213	0	239	334	0	0	1176
Apprch %	0	0	0	0	0	99.5	0.5	0	2.3	0	97.7	0	41.7	58.3	0	0	
Total %	0	0	0	0	0	32.6	0.2	0	0.4	0	18.1	0	20.3	28.4	0	0	

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	0	45	1	0	46	0	0	34	0	34	32	55	0	0	87	167
05:00 PM	0	0	0	0	0	0	60	0	0	60	0	0	19	0	19	39	37	0	0	76	155
05:15 PM	0	0	0	0	0	0	46	1	0	47	2	0	31	0	33	23	40	0	0	63	143
05:30 PM	0	0	0	0	0	0	44	0	0	44	1	0	29	0	30	32	59	0	0	91	165
Total Volume	0	0	0	0	0	0	195	2	0	197	3	0	113	0	116	126	191	0	0	317	630
% App. Total	0	0	0	0		0	99	1	0		2.6	0	97.4	0		39.7	60.3	0	0		
PHF	.000	.000	.000	.000	.000	.000	.813	.500	.000	.821	.375	.000	.831	.000	.853	.808	.809	.000	.000	.871	.943

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 II
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	2	1	0	0	4
Total	0	0	0	0	0	0	0	0	1	0	1	0	2	2	0	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3
Grand Total	0	0	0	0	0	0	0	0	1	0	3	0	3	2	0	0	9
Apprch %	0	0	0	0	0	0	0	0	25	0	75	0	60	40	0	0	
Total %	0	0	0	0	0	0	0	0	11.1	0	33.3	0	33.3	22.2	0	0	

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	1	0	0	3	4
Total Volume	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	2	0	0	4	6
% App. Total	0	0	0	0		0	0	0	0		50	0	50	0		50	50	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.500	.250	.500	.000	.000	.333	.375

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OO
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
04:00 PM	194	12	12	1	16	6	3	0	4	11	0	0	1	1	114	0	375
04:15 PM	186	12	11	1	16	8	1	0	1	5	1	0	1	5	139	0	387
04:30 PM	189	16	13	0	24	4	7	0	1	1	0	0	0	2	131	0	388
04:45 PM	178	10	11	1	22	7	5	0	1	5	0	0	1	2	148	0	391
Total	747	50	47	3	78	25	16	0	7	22	1	0	3	10	532	0	1541
05:00 PM	199	13	10	0	23	1	1	0	0	7	2	0	0	2	117	0	375
05:15 PM	199	4	7	0	28	7	2	0	1	7	2	0	0	2	155	0	414
05:30 PM	175	7	10	1	14	2	1	0	1	11	1	0	0	2	133	0	358
05:45 PM	207	7	8	0	25	3	2	0	0	3	4	0	1	1	124	0	385
Total	780	31	35	1	90	13	6	0	2	28	9	0	1	7	529	0	1532
Grand Total	1527	81	82	4	168	38	22	0	9	50	10	0	4	17	1061	0	3073
Apprch %	90.1	4.8	4.8	0.2	73.7	16.7	9.6	0	13	72.5	14.5	0	0.4	1.6	98.1	0	
Total %	49.7	2.6	2.7	0.1	5.5	1.2	0.7	0	0.3	1.6	0.3	0	0.1	0.6	34.5	0	
Cars	1491	80	73	4	162	37	22	0	8	50	10	0	4	17	1028	0	2986
% Cars	97.6	98.8	89	100	96.4	97.4	100	0	88.9	100	100	0	100	100	96.9	0	97.2
Heavy Vehicles	36	1	9	0	6	1	0	0	1	0	0	0	0	0	33	0	87
% Heavy Vehicles	2.4	1.2	11	0	3.6	2.6	0	0	11.1	0	0	0	0	0	3.1	0	2.8

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	189	16	13	0	218	24	4	7	0	35	1	1	0	0	2	0	2	131	0	133	388
04:45 PM	178	10	11	1	200	22	7	5	0	34	1	5	0	0	6	1	2	148	0	151	391
05:00 PM	199	13	10	0	222	23	1	1	0	25	0	7	2	0	9	0	2	117	0	119	375
05:15 PM	199	4	7	0	210	28	7	2	0	37	1	7	2	0	10	0	2	155	0	157	414
Total Volume	765	43	41	1	850	97	19	15	0	131	3	20	4	0	27	1	8	551	0	560	1568
% App. Total	90	5.1	4.8	0.1		74	14.5	11.5	0		11.1	74.1	14.8	0		0.2	1.4	98.4	0		
PHF	.961	.672	.788	.250	.957	.866	.679	.536	.000	.885	.750	.714	.500	.000	.675	.250	1.00	.889	.000	.892	.947
Cars	745	43	38	1	827	93	19	15	0	127	3	20	4	0	27	1	8	531	0	540	1521
% Cars	97.4	100	92.7	100	97.3	95.9	100	100	0	96.9	100	100	100	0	100	100	100	96.4	0	96.4	97.0
Heavy Vehicles	20	0	3	0	23	4	0	0	0	4	0	0	0	0	0	0	0	20	0	20	47
% Heavy Vehicles	2.6	0	7.3	0	2.7	4.1	0	0	0	3.1	0	0	0	0	0	0	0	3.6	0	3.6	3.0

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OO
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
04:00 PM	192	11	11	1	15	5	3	0	4	11	0	0	1	1	113	0	368
04:15 PM	178	12	7	1	15	8	1	0	1	5	1	0	1	5	134	0	369
04:30 PM	182	16	12	0	22	4	7	0	1	1	0	0	0	2	125	0	372
04:45 PM	175	10	9	1	20	7	5	0	1	5	0	0	1	2	144	0	380
Total	727	49	39	3	72	24	16	0	7	22	1	0	3	10	516	0	1489
05:00 PM	195	13	10	0	23	1	1	0	0	7	2	0	0	2	113	0	367
05:15 PM	193	4	7	0	28	7	2	0	1	7	2	0	0	2	149	0	402
05:30 PM	171	7	10	1	14	2	1	0	0	11	1	0	0	2	128	0	348
05:45 PM	205	7	7	0	25	3	2	0	0	3	4	0	1	1	122	0	380
Total	764	31	34	1	90	13	6	0	1	28	9	0	1	7	512	0	1497
Grand Total	1491	80	73	4	162	37	22	0	8	50	10	0	4	17	1028	0	2986
Apprch %	90.5	4.9	4.4	0.2	73.3	16.7	10	0	11.8	73.5	14.7	0	0.4	1.6	98	0	
Total %	49.9	2.7	2.4	0.1	5.4	1.2	0.7	0	0.3	1.7	0.3	0	0.1	0.6	34.4	0	

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	182	16	12	0	210	22	4	7	0	33	1	1	0	0	2	0	2	125	0	127	372
04:45 PM	175	10	9	1	195	20	7	5	0	32	1	5	0	0	6	1	2	144	0	147	380
05:00 PM	195	13	10	0	218	23	1	1	0	25	0	7	2	0	9	0	2	113	0	115	367
05:15 PM	193	4	7	0	204	28	7	2	0	37	1	7	2	0	10	0	2	149	0	151	402
Total Volume	745	43	38	1	827	93	19	15	0	127	3	20	4	0	27	1	8	531	0	540	1521
% App. Total	90.1	5.2	4.6	0.1		73.2	15	11.8	0		11.1	74.1	14.8	0		0.2	1.5	98.3	0		
PHF	.955	.672	.792	.250	.948	.830	.679	.536	.000	.858	.750	.714	.500	.000	.675	.250	1.00	.891	.000	.894	.946

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OO
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
04:00 PM	2	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	7
04:15 PM	8	0	4	0	1	0	0	0	0	0	0	0	0	0	5	0	18
04:30 PM	7	0	1	0	2	0	0	0	0	0	0	0	0	0	6	0	16
04:45 PM	3	0	2	0	2	0	0	0	0	0	0	0	0	0	4	0	11
Total	20	1	8	0	6	1	0	0	0	0	0	0	0	0	16	0	52
05:00 PM	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	8
05:15 PM	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	12
05:30 PM	4	0	0	0	0	0	0	0	1	0	0	0	0	0	5	0	10
05:45 PM	2	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	5
Total	16	0	1	0	0	0	0	0	1	0	0	0	0	0	17	0	35
Grand Total	36	1	9	0	6	1	0	0	1	0	0	0	0	0	33	0	87
Apprch %	78.3	2.2	19.6	0	85.7	14.3	0	0	100	0	0	0	0	0	100	0	
Total %	41.4	1.1	10.3	0	6.9	1.1	0	0	1.1	0	0	0	0	0	37.9	0	

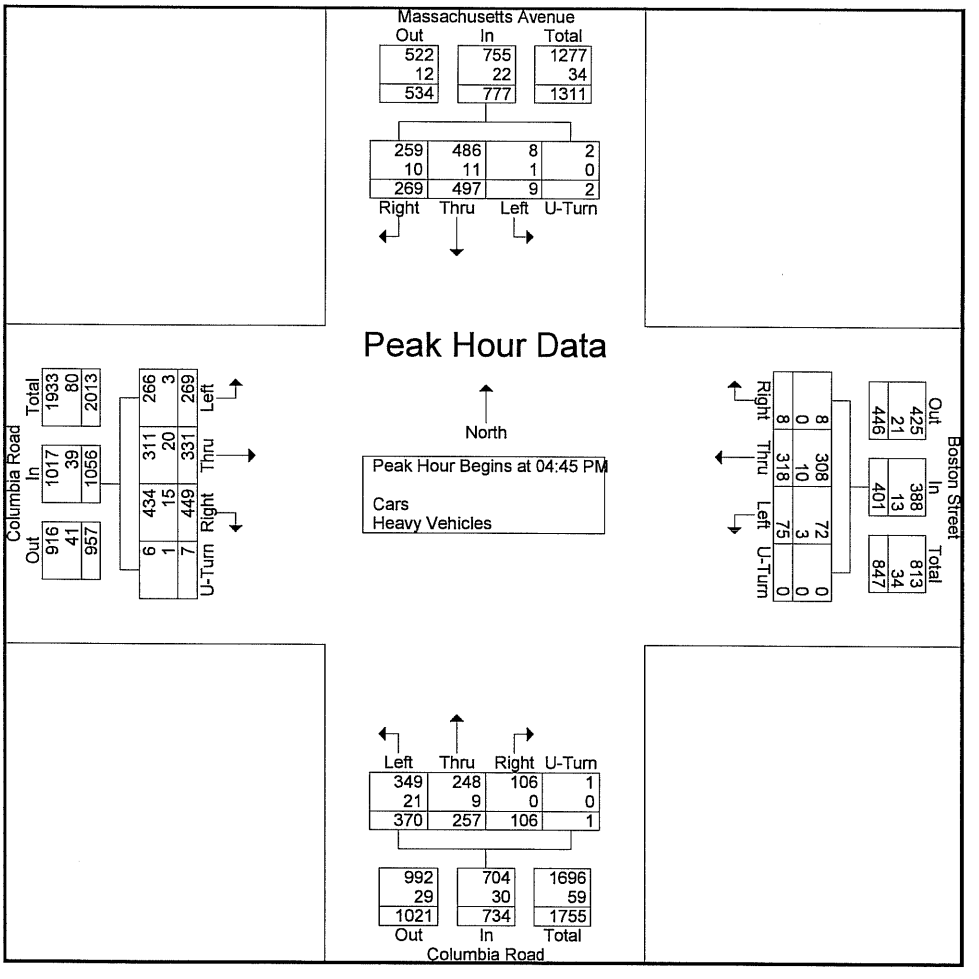
	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	8	0	4	0	12	1	0	0	0	1	0	0	0	0	0	0	0	5	0	5	18
04:30 PM	7	0	1	0	8	2	0	0	0	2	0	0	0	0	0	0	0	6	0	6	16
04:45 PM	3	0	2	0	5	2	0	0	0	2	0	0	0	0	0	0	0	4	0	4	11
05:00 PM	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	8
Total Volume	22	0	7	0	29	5	0	0	0	5	0	0	0	0	0	0	0	19	0	19	53
% App. Total	75.9	0	24.1	0		100	0	0	0		0	0	0	0		0	0	100	0		
PHF	.688	.000	.438	.000	.604	.625	.000	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.792	.000	.792	.736

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	57	119	2	0	178	2	86	16	0	104	24	68	82	1	175	116	97	83	0	296	753
05:00 PM	67	115	2	2	186	0	86	21	0	107	28	56	81	0	165	106	73	63	3	245	703
05:15 PM	57	126	5	0	188	4	81	18	0	103	28	60	101	0	189	106	79	61	2	248	728
05:30 PM	88	137	0	0	225	2	65	20	0	87	26	73	106	0	205	121	82	62	2	267	784
Total Volume	269	497	9	2	777	8	318	75	0	401	106	257	370	1	734	449	331	269	7	1056	2968
% App. Total	34.6	64	1.2	0.3		2	79.3	18.7	0		14.4	35	50.4	0.1		42.5	31.3	25.5	0.7		
PHF	.764	.907	.450	.250	.863	.500	.924	.893	.000	.937	.946	.880	.873	.250	.895	.928	.853	.810	.583	.892	.946
Cars	259	486	8	2	755	8	308	72	0	388	106	248	349	1	704	434	311	266	6	1017	2864
% Cars	96.3	97.8	88.9	100	97.2	100	96.9	96.0	0	96.8	100	96.5	94.3	100	95.9	96.7	94.0	98.9	85.7	96.3	96.5
Heavy Vehicles	10	11	1	0	22	0	10	3	0	13	0	9	21	0	30	15	20	3	1	39	104
% Heavy Vehicles	3.7	2.2	11.1	0	2.8	0	3.1	4.0	0	3.2	0	3.5	5.7	0	4.1	3.3	6.0	1.1	14.3	3.7	3.5



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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	62	117	6	0	2	72	24	0	30	50	68	2	115	98	61	1	708
04:15 PM	68	114	3	0	2	69	29	0	33	64	95	0	112	72	67	3	731
04:30 PM	73	127	4	0	0	81	16	0	21	60	104	1	108	102	75	1	773
04:45 PM	57	119	2	0	2	86	16	0	24	68	82	1	116	97	83	0	753
Total	260	477	15	0	6	308	85	0	108	242	349	4	451	369	286	5	2965
05:00 PM	67	115	2	2	0	86	21	0	28	56	81	0	106	73	63	3	703
05:15 PM	57	126	5	0	4	81	18	0	28	60	101	0	106	79	61	2	728
05:30 PM	88	137	0	0	2	65	20	0	26	73	106	0	121	82	62	2	784
05:45 PM	76	107	1	0	0	90	27	0	22	61	75	0	120	66	77	3	725
Total	288	485	8	2	6	322	86	0	104	250	363	0	453	300	263	10	2940
Grand Total	548	962	23	2	12	630	171	0	212	492	712	4	904	669	549	15	5905
Apprch %	35.7	62.7	1.5	0.1	1.5	77.5	21	0	14.9	34.6	50.1	0.3	42.3	31.3	25.7	0.7	
Total %	9.3	16.3	0.4	0	0.2	10.7	2.9	0	3.6	8.3	12.1	0.1	15.3	11.3	9.3	0.3	
Cars	530	936	22	2	12	602	160	0	209	478	671	4	881	629	535	14	5685
% Cars	96.7	97.3	95.7	100	100	95.6	93.6	0	98.6	97.2	94.2	100	97.5	94	97.4	93.3	96.3
Heavy Vehicles	18	26	1	0	0	28	11	0	3	14	41	0	23	40	14	1	220
% Heavy Vehicles	3.3	2.7	4.3	0	0	4.4	6.4	0	1.4	2.8	5.8	0	2.5	6	2.6	6.7	3.7

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	57	119	2	0	178	2	86	16	0	104	24	68	82	1	175	116	97	83	0	296	753
05:00 PM	67	115	2	2	186	0	86	21	0	107	28	56	81	0	165	106	73	63	3	245	703
05:15 PM	57	126	5	0	188	4	81	18	0	103	28	60	101	0	189	106	79	61	2	248	728
05:30 PM	88	137	0	0	225	2	65	20	0	87	26	73	106	0	205	121	82	62	2	267	784
Total Volume	269	497	9	2	777	8	318	75	0	401	106	257	370	1	734	449	331	269	7	1056	2968
% App. Total	34.6	64	1.2	0.3		2	79.3	18.7	0		14.4	35	50.4	0.1		42.5	31.3	25.5	0.7		
PHF	.764	.907	.450	.250	.863	.500	.924	.893	.000	.937	.946	.880	.873	.250	.895	.928	.853	.810	.583	.892	.946
Cars	259	486	8	2	755	8	308	72	0	388	106	248	349	1	704	434	311	266	6	1017	2864
% Cars	96.3	97.8	88.9	100	97.2	100	96.9	96.0	0	96.8	100	96.5	94.3	100	95.9	96.7	94.0	98.9	85.7	96.3	96.5
Heavy Vehicles	10	11	1	0	22	0	10	3	0	13	0	9	21	0	30	15	20	3	1	39	104
% Heavy Vehicles	3.7	2.2	11.1	0	2.8	0	3.1	4.0	0	3.2	0	3.5	5.7	0	4.1	3.3	6.0	1.1	14.3	3.7	3.5

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AA
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	61	115	6	0	2	67	22	0	29	48	61	2	113	94	61	1	682
04:15 PM	65	112	3	0	2	64	26	0	32	63	89	0	110	63	61	3	693
04:30 PM	71	120	4	0	0	78	14	0	20	59	99	1	105	98	74	1	744
04:45 PM	54	116	2	0	2	81	15	0	24	65	72	1	112	92	82	0	718
Total	251	463	15	0	6	290	77	0	105	235	321	4	440	347	278	5	2837
05:00 PM	63	111	2	2	0	84	21	0	28	51	74	0	101	66	62	3	668
05:15 PM	54	124	4	0	4	79	17	0	28	60	99	0	104	77	60	2	712
05:30 PM	88	135	0	0	2	64	19	0	26	72	104	0	117	76	62	1	766
05:45 PM	74	103	1	0	0	85	26	0	22	60	73	0	119	63	73	3	702
Total	279	473	7	2	6	312	83	0	104	243	350	0	441	282	257	9	2848
Grand Total	530	936	22	2	12	602	160	0	209	478	671	4	881	629	535	14	5685
Apprch %	35.6	62.8	1.5	0.1	1.6	77.8	20.7	0	15.3	35.1	49.3	0.3	42.8	30.5	26	0.7	
Total %	9.3	16.5	0.4	0	0.2	10.6	2.8	0	3.7	8.4	11.8	0.1	15.5	11.1	9.4	0.2	

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	54	116	2	0	172	2	81	15	0	98	24	65	72	1	162	112	92	82	0	286	718
05:00 PM	63	111	2	2	178	0	84	21	0	105	28	51	74	0	153	101	66	62	3	232	668
05:15 PM	54	124	4	0	182	4	79	17	0	100	28	60	99	0	187	104	77	60	2	243	712
05:30 PM	88	135	0	0	223	2	64	19	0	85	26	72	104	0	202	117	76	62	1	256	766
Total Volume	259	486	8	2	755	8	308	72	0	388	106	248	349	1	704	434	311	266	6	1017	2864
% App. Total	34.3	64.4	1.1	0.3		2.1	79.4	18.6	0		15.1	35.2	49.6	0.1		42.7	30.6	26.2	0.6		
PHF	.736	.900	.500	.250	.846	.500	.917	.857	.000	.924	.946	.861	.839	.250	.871	.927	.845	.811	.500	.889	.935

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AA
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	2	0	0	0	5	2	0	1	2	7	0	2	4	0	0	26
04:15 PM	3	2	0	0	0	5	3	0	1	1	6	0	2	9	6	0	38
04:30 PM	2	7	0	0	0	3	2	0	1	1	5	0	3	4	1	0	29
04:45 PM	3	3	0	0	0	5	1	0	0	3	10	0	4	5	1	0	35
Total	9	14	0	0	0	18	8	0	3	7	28	0	11	22	8	0	128
05:00 PM	4	4	0	0	0	2	0	0	0	5	7	0	5	7	1	0	35
05:15 PM	3	2	1	0	0	2	1	0	0	0	2	0	2	2	1	0	16
05:30 PM	0	2	0	0	0	1	1	0	0	1	2	0	4	6	0	1	18
05:45 PM	2	4	0	0	0	5	1	0	0	1	2	0	1	3	4	0	23
Total	9	12	1	0	0	10	3	0	0	7	13	0	12	18	6	1	92
Grand Total	18	26	1	0	0	28	11	0	3	14	41	0	23	40	14	1	220
Apprch %	40	57.8	2.2	0	0	71.8	28.2	0	5.2	24.1	70.7	0	29.5	51.3	17.9	1.3	
Total %	8.2	11.8	0.5	0	0	12.7	5	0	1.4	6.4	18.6	0	10.5	18.2	6.4	0.5	

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	3	2	0	0	5	0	5	3	0	8	1	1	6	0	8	2	9	6	0	17	38
04:30 PM	2	7	0	0	9	0	3	2	0	5	1	1	5	0	7	3	4	1	0	8	29
04:45 PM	3	3	0	0	6	0	5	1	0	6	0	3	10	0	13	4	5	1	0	10	35
05:00 PM	4	4	0	0	8	0	2	0	0	2	0	5	7	0	12	5	7	1	0	13	35
Total Volume	12	16	0	0	28	0	15	6	0	21	2	10	28	0	40	14	25	9	0	48	137
% App. Total	42.9	57.1	0	0		0	71.4	28.6	0		5	25	70	0		29.2	52.1	18.8	0		
PHF	.750	.571	.000	.000	.778	.000	.750	.500	.000	.656	.500	.500	.700	.000	.769	.700	.694	.375	.000	.706	.901

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HH
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	13	53	40	0	20	77	52	0	77	41	12	0	7	128	15	0	535
04:15 PM	19	55	32	0	14	101	53	0	73	52	20	0	10	109	7	0	545
04:30 PM	14	68	36	0	22	81	63	0	64	53	8	0	7	96	12	0	524
04:45 PM	14	48	32	0	21	90	54	2	74	44	12	0	7	94	7	0	499
Total	60	224	140	0	77	349	222	2	288	190	52	0	31	427	41	0	2103
05:00 PM	13	40	39	0	30	87	62	1	72	49	15	0	7	89	6	0	510
05:15 PM	14	48	33	0	13	111	63	1	79	52	8	0	11	115	6	0	554
05:30 PM	10	62	34	0	13	85	72	1	73	35	13	0	10	108	4	0	520
05:45 PM	12	54	28	0	21	95	50	0	58	44	9	0	20	116	2	0	509
Total	49	204	134	0	77	378	247	3	282	180	45	0	48	428	18	0	2093
Grand Total	109	428	274	0	154	727	469	5	570	370	97	0	79	855	59	0	4196
Apprch %	13.4	52.8	33.8	0	11.4	53.7	34.6	0.4	55	35.7	9.4	0	8	86.1	5.9	0	
Total %	2.6	10.2	6.5	0	3.7	17.3	11.2	0.1	13.6	8.8	2.3	0	1.9	20.4	1.4	0	
Cars	106	407	264	0	151	681	420	5	546	338	93	0	74	825	53	0	3963
% Cars	97.2	95.1	96.4	0	98.1	93.7	89.6	100	95.8	91.4	95.9	0	93.7	96.5	89.8	0	94.4
Heavy Vehicles	3	21	10	0	3	46	49	0	24	32	4	0	5	30	6	0	233
% Heavy Vehicles	2.8	4.9	3.6	0	1.9	6.3	10.4	0	4.2	8.6	4.1	0	6.3	3.5	10.2	0	5.6

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	13	53	40	0	106	20	77	52	0	149	77	41	12	0	130	7	128	15	0	150	535
04:15 PM	19	55	32	0	106	14	101	53	0	168	73	52	20	0	145	10	109	7	0	126	545
04:30 PM	14	68	36	0	118	22	81	63	0	166	64	53	8	0	125	7	96	12	0	115	524
04:45 PM	14	48	32	0	94	21	90	54	2	167	74	44	12	0	130	7	94	7	0	108	499
Total Volume	60	224	140	0	424	77	349	222	2	650	288	190	52	0	530	31	427	41	0	499	2103
% App. Total	14.2	52.8	33	0		11.8	53.7	34.2	0.3		54.3	35.8	9.8	0		6.2	85.6	8.2	0		
PHF	.789	.824	.875	.000	.898	.875	.864	.881	.250	.967	.935	.896	.650	.000	.914	.775	.834	.683	.000	.832	.965
Cars	58	213	132	0	403	76	317	193	2	588	274	171	49	0	494	28	410	37	0	475	1960
% Cars	96.7	95.1	94.3	0	95.0	98.7	90.8	86.9	100	90.5	95.1	90.0	94.2	0	93.2	90.3	96.0	90.2	0	95.2	93.2
Heavy Vehicles	2	11	8	0	21	1	32	29	0	62	14	19	3	0	36	3	17	4	0	24	143
% Heavy Vehicles	3.3	4.9	5.7	0	5.0	1.3	9.2	13.1	0	9.5	4.9	10.0	5.8	0	6.8	9.7	4.0	9.8	0	4.8	6.8

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HH
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	12	50	38	0	20	70	44	0	74	33	11	0	7	125	13	0	497
04:15 PM	19	52	29	0	14	97	48	0	69	49	18	0	10	103	6	0	514
04:30 PM	14	67	35	0	21	72	53	0	61	50	8	0	5	93	12	0	491
04:45 PM	13	44	30	0	21	78	48	2	70	39	12	0	6	89	6	0	458
Total	58	213	132	0	76	317	193	2	274	171	49	0	28	410	37	0	1960
05:00 PM	13	36	39	0	30	79	51	1	68	44	14	0	6	87	6	0	474
05:15 PM	14	46	32	0	11	108	62	1	78	49	8	0	11	111	4	0	535
05:30 PM	10	59	33	0	13	85	67	1	69	33	13	0	10	106	4	0	503
05:45 PM	11	53	28	0	21	92	47	0	57	41	9	0	19	111	2	0	491
Total	48	194	132	0	75	364	227	3	272	167	44	0	46	415	16	0	2003
Grand Total	106	407	264	0	151	681	420	5	546	338	93	0	74	825	53	0	3963
Apprch %	13.6	52.4	34	0	12	54.2	33.4	0.4	55.9	34.6	9.5	0	7.8	86.7	5.6	0	
Total %	2.7	10.3	6.7	0	3.8	17.2	10.6	0.1	13.8	8.5	2.3	0	1.9	20.8	1.3	0	

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	13	36	39	0	88	30	79	51	1	161	68	44	14	0	126	6	87	6	0	99	474
05:15 PM	14	46	32	0	92	11	108	62	1	182	78	49	8	0	135	11	111	4	0	126	535
05:30 PM	10	59	33	0	102	13	85	67	1	166	69	33	13	0	115	10	106	4	0	120	503
05:45 PM	11	53	28	0	92	21	92	47	0	160	57	41	9	0	107	19	111	2	0	132	491
Total Volume	48	194	132	0	374	75	364	227	3	669	272	167	44	0	483	46	415	16	0	477	2003
% App. Total	12.8	51.9	35.3	0		11.2	54.4	33.9	0.4		56.3	34.6	9.1	0		9.6	87	3.4	0		
PHF	.857	.822	.846	.000	.917	.625	.843	.847	.750	.919	.872	.852	.786	.000	.894	.605	.935	.667	.000	.903	.936

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
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PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HH
Site Code : 804
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Page No : 1

Groups Printed- Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	3	2	0	0	7	8	0	3	8	1	0	0	3	2	0	38
04:15 PM	0	3	3	0	0	4	5	0	4	3	2	0	0	6	1	0	31
04:30 PM	0	1	1	0	1	9	10	0	3	3	0	0	2	3	0	0	33
04:45 PM	1	4	2	0	0	12	6	0	4	5	0	0	1	5	1	0	41
Total	2	11	8	0	1	32	29	0	14	19	3	0	3	17	4	0	143
05:00 PM	0	4	0	0	0	8	11	0	4	5	1	0	1	2	0	0	36
05:15 PM	0	2	1	0	2	3	1	0	1	3	0	0	0	4	2	0	19
05:30 PM	0	3	1	0	0	0	5	0	4	2	0	0	0	2	0	0	17
05:45 PM	1	1	0	0	0	3	3	0	1	3	0	0	1	5	0	0	18
Total	1	10	2	0	2	14	20	0	10	13	1	0	2	13	2	0	90
Grand Total	3	21	10	0	3	46	49	0	24	32	4	0	5	30	6	0	233
Apprch %	8.8	61.8	29.4	0	3.1	46.9	50	0	40	53.3	6.7	0	12.2	73.2	14.6	0	
Total %	1.3	9	4.3	0	1.3	19.7	21	0	10.3	13.7	1.7	0	2.1	12.9	2.6	0	

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	3	2	0	6	0	7	8	0	15	3	8	1	0	12	0	3	2	0	5	38
04:15 PM	0	3	3	0	6	0	4	5	0	9	4	3	2	0	9	0	6	1	0	7	31
04:30 PM	0	1	1	0	2	1	9	10	0	20	3	3	0	0	6	2	3	0	0	5	33
04:45 PM	1	4	2	0	7	0	12	6	0	18	4	5	0	0	9	1	5	1	0	7	41
Total Volume	2	11	8	0	21	1	32	29	0	62	14	19	3	0	36	3	17	4	0	24	143
% App. Total	9.5	52.4	38.1	0		1.6	51.6	46.8	0		38.9	52.8	8.3	0		12.5	70.8	16.7	0		
PHF	.500	.688	.667	.000	.750	.250	.667	.725	.000	.775	.875	.594	.375	.000	.750	.375	.708	.500	.000	.857	.872

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PP
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	24	116	0	108	2	0	0	8	1	259
04:15 PM	22	97	0	97	3	1	1	7	0	228
04:30 PM	26	95	0	96	5	0	1	10	0	233
04:45 PM	29	102	1	92	3	0	0	6	1	234
Total	101	410	1	393	13	1	2	31	2	954
05:00 PM	14	106	1	105	4	0	0	13	0	243
05:15 PM	24	95	0	107	7	0	3	7	0	243
05:30 PM	8	112	0	92	3	0	4	10	0	229
05:45 PM	17	119	0	95	3	0	4	7	0	245
Total	63	432	1	399	17	0	11	37	0	960
Grand Total	164	842	2	792	30	1	13	68	2	1914
Apprch %	16.3	83.5	0.2	96.2	3.6	0.1	15.7	81.9	2.4	
Total %	8.6	44	0.1	41.4	1.6	0.1	0.7	3.6	0.1	
Cars	157	803	2	748	30	1	12	61	2	1816
% Cars	95.7	95.4	100	94.4	100	100	92.3	89.7	100	94.9
Heavy Vehicles	7	39	0	44	0	0	1	7	0	98
% Heavy Vehicles	4.3	4.6	0	5.6	0	0	7.7	10.3	0	5.1

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	14	106	1	121	105	4	0	109	0	13	0	13	243
05:15 PM	24	95	0	119	107	7	0	114	3	7	0	10	243
05:30 PM	8	112	0	120	92	3	0	95	4	10	0	14	229
05:45 PM	17	119	0	136	95	3	0	98	4	7	0	11	245
Total Volume	63	432	1	496	399	17	0	416	11	37	0	48	960
% App. Total	12.7	87.1	0.2		95.9	4.1	0		22.9	77.1	0		
PHF	.656	.908	.250	.912	.932	.607	.000	.912	.688	.712	.000	.857	.980
Cars	63	416	1	480	380	17	0	397	10	36	0	46	923
% Cars	100	96.3	100	96.8	95.2	100	0	95.4	90.9	97.3	0	95.8	96.1
Heavy Vehicles	0	16	0	16	19	0	0	19	1	1	0	2	37
% Heavy Vehicles	0	3.7	0	3.2	4.8	0	0	4.6	9.1	2.7	0	4.2	3.9

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PP
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	21	103	0	102	2	0	0	8	1	237
04:15 PM	22	92	0	90	3	1	1	3	0	212
04:30 PM	24	91	0	88	5	0	1	10	0	219
04:45 PM	27	101	1	88	3	0	0	4	1	225
Total	94	387	1	368	13	1	2	25	2	893
05:00 PM	14	98	1	101	4	0	0	13	0	231
05:15 PM	24	93	0	100	7	0	3	7	0	234
05:30 PM	8	108	0	90	3	0	4	9	0	222
05:45 PM	17	117	0	89	3	0	3	7	0	236
Total	63	416	1	380	17	0	10	36	0	923
Grand Total	157	803	2	748	30	1	12	61	2	1816
Apprch %	16.3	83.5	0.2	96	3.9	0.1	16	81.3	2.7	
Total %	8.6	44.2	0.1	41.2	1.7	0.1	0.7	3.4	0.1	

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	14	98	1	113	101	4	0	105	0	13	0	13	231
05:15 PM	24	93	0	117	100	7	0	107	3	7	0	10	234
05:30 PM	8	108	0	116	90	3	0	93	4	9	0	13	222
05:45 PM	17	117	0	134	89	3	0	92	3	7	0	10	236
Total Volume	63	416	1	480	380	17	0	397	10	36	0	46	923
% App. Total	13.1	86.7	0.2		95.7	4.3	0		21.7	78.3	0		
PHF	.656	.889	.250	.896	.941	.607	.000	.928	.625	.692	.000	.885	.978

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PP
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
04:00 PM	3	13	0	6	0	0	0	0	0	22
04:15 PM	0	5	0	7	0	0	0	4	0	16
04:30 PM	2	4	0	8	0	0	0	0	0	14
04:45 PM	2	1	0	4	0	0	0	2	0	9
Total	7	23	0	25	0	0	0	6	0	61
05:00 PM	0	8	0	4	0	0	0	0	0	12
05:15 PM	0	2	0	7	0	0	0	0	0	9
05:30 PM	0	4	0	2	0	0	0	1	0	7
05:45 PM	0	2	0	6	0	0	1	0	0	9
Total	0	16	0	19	0	0	1	1	0	37
Grand Total	7	39	0	44	0	0	1	7	0	98
Apprch %	15.2	84.8	0	100	0	0	12.5	87.5	0	
Total %	7.1	39.8	0	44.9	0	0	1	7.1	0	

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	3	13	0	16	6	0	0	6	0	0	0	0	22
04:15 PM	0	5	0	5	7	0	0	7	0	4	0	4	16
04:30 PM	2	4	0	6	8	0	0	8	0	0	0	0	14
04:45 PM	2	1	0	3	4	0	0	4	0	2	0	2	9
Total Volume	7	23	0	30	25	0	0	25	0	6	0	6	61
% App. Total	23.3	76.7	0		100	0	0		0	100	0		
PHF	.583	.442	.000	.469	.781	.000	.000	.781	.000	.375	.000	.375	.693

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LL
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	106	8	0	0	0	0	0	11	107	4	1	1	3	4	0	246
04:15 PM	2	111	15	0	0	0	0	0	9	88	0	0	2	0	1	0	228
04:30 PM	3	108	10	1	0	0	0	0	6	92	3	0	3	1	4	0	231
04:45 PM	3	123	13	1	0	0	0	0	7	106	1	0	4	0	3	0	261
Total	9	448	46	2	0	0	0	0	33	393	8	1	10	4	12	0	966
05:00 PM	2	107	7	2	0	0	0	0	3	89	1	1	5	0	0	0	217
05:15 PM	3	117	14	0	0	0	0	0	4	76	2	0	4	0	5	0	225
05:30 PM	6	129	12	0	0	0	0	0	6	99	2	0	5	0	2	0	261
05:45 PM	0	140	10	0	0	0	0	0	5	73	1	1	1	0	0	0	231
Total	11	493	43	2	0	0	0	0	18	337	6	2	15	0	7	0	934
Grand Total	20	941	89	4	0	0	0	0	51	730	14	3	25	4	19	0	1900
Apprch %	1.9	89.3	8.4	0.4	0	0	0	0	6.4	91.5	1.8	0.4	52.1	8.3	39.6	0	
Total %	1.1	49.5	4.7	0.2	0	0	0	0	2.7	38.4	0.7	0.2	1.3	0.2	1	0	
Cars	16	899	86	4	0	0	0	0	49	680	12	3	23	4	16	0	1792
% Cars	80	95.5	96.6	100	0	0	0	0	96.1	93.2	85.7	100	92	100	84.2	0	94.3
Heavy Vehicles	4	42	3	0	0	0	0	0	2	50	2	0	2	0	3	0	108
% Heavy Vehicles	20	4.5	3.4	0	0	0	0	0	3.9	6.8	14.3	0	8	0	15.8	0	5.7

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	106	8	0	115	0	0	0	0	0	11	107	4	1	123	1	3	4	0	8	246
04:15 PM	2	111	15	0	128	0	0	0	0	0	9	88	0	0	97	2	0	1	0	3	228
04:30 PM	3	108	10	1	122	0	0	0	0	0	6	92	3	0	101	3	1	4	0	8	231
04:45 PM	3	123	13	1	140	0	0	0	0	0	7	106	1	0	114	4	0	3	0	7	261
Total Volume	9	448	46	2	505	0	0	0	0	0	33	393	8	1	435	10	4	12	0	26	966
% App. Total	1.8	88.7	9.1	0.4		0	0	0	0		7.6	90.3	1.8	0.2		38.5	15.4	46.2	0		
PHF	.750	.911	.767	.500	.902	.000	.000	.000	.000	.000	.750	.918	.500	.250	.884	.625	.333	.750	.000	.813	.925
Cars	7	419	44	2	472	0	0	0	0	0	32	363	6	1	402	9	4	9	0	22	896
% Cars	77.8	93.5	95.7	100	93.5	0	0	0	0	0	97.0	92.4	75.0	100	92.4	90.0	100	75.0	0	84.6	92.8
Heavy Vehicles	2	29	2	0	33	0	0	0	0	0	1	30	2	0	33	1	0	3	0	4	70
% Heavy Vehicles	22.2	6.5	4.3	0	6.5	0	0	0	0	0	3.0	7.6	25.0	0	7.6	10.0	0	25.0	0	15.4	7.2

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LL
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	98	7	0	0	0	0	0	11	99	4	1	1	3	2	0	226
04:15 PM	2	105	14	0	0	0	0	0	9	78	0	0	2	0	1	0	211
04:30 PM	3	98	10	1	0	0	0	0	5	85	1	0	3	1	3	0	210
04:45 PM	2	118	13	1	0	0	0	0	7	101	1	0	3	0	3	0	249
Total	7	419	44	2	0	0	0	0	32	363	6	1	9	4	9	0	896
05:00 PM	1	104	7	2	0	0	0	0	3	81	1	1	4	0	0	0	204
05:15 PM	2	114	13	0	0	0	0	0	3	74	2	0	4	0	5	0	217
05:30 PM	6	126	12	0	0	0	0	0	6	91	2	0	5	0	2	0	250
05:45 PM	0	136	10	0	0	0	0	0	5	71	1	1	1	0	0	0	225
Total	9	480	42	2	0	0	0	0	17	317	6	2	14	0	7	0	896
Grand Total	16	899	86	4	0	0	0	0	49	680	12	3	23	4	16	0	1792
Apprch %	1.6	89.5	8.6	0.4	0	0	0	0	6.6	91.4	1.6	0.4	53.5	9.3	37.2	0	
Total %	0.9	50.2	4.8	0.2	0	0	0	0	2.7	37.9	0.7	0.2	1.3	0.2	0.9	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	2	118	13	1	134	0	0	0	0	0	7	101	1	0	109	3	0	3	0	6	249
05:00 PM	1	104	7	2	114	0	0	0	0	0	3	81	1	1	86	4	0	0	0	4	204
05:15 PM	2	114	13	0	129	0	0	0	0	0	3	74	2	0	79	4	0	5	0	9	217
05:30 PM	6	126	12	0	144	0	0	0	0	0	6	91	2	0	99	5	0	2	0	7	250
Total Volume	11	462	45	3	521	0	0	0	0	0	19	347	6	1	373	16	0	10	0	26	920
% App. Total	2.1	88.7	8.6	0.6		0	0	0	0		5.1	93	1.6	0.3		61.5	0	38.5	0		
PHF	.458	.917	.865	.375	.905	.000	.000	.000	.000	.000	.679	.859	.750	.250	.856	.800	.000	.500	.000	.722	.920

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City, State: Boston, MA
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LL
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W. Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	1	8	1	0	0	0	0	0	0	8	0	0	0	0	2	0	20
04:15 PM	0	6	1	0	0	0	0	0	0	10	0	0	0	0	0	0	17
04:30 PM	0	10	0	0	0	0	0	0	1	7	2	0	0	0	1	0	21
04:45 PM	1	5	0	0	0	0	0	0	0	5	0	0	1	0	0	0	12
Total	2	29	2	0	0	0	0	0	1	30	2	0	1	0	3	0	70
05:00 PM	1	3	0	0	0	0	0	0	0	8	0	0	1	0	0	0	13
05:15 PM	1	3	1	0	0	0	0	0	1	2	0	0	0	0	0	0	8
05:30 PM	0	3	0	0	0	0	0	0	0	8	0	0	0	0	0	0	11
05:45 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	6
Total	2	13	1	0	0	0	0	0	1	20	0	0	1	0	0	0	38
Grand Total	4	42	3	0	0	0	0	0	2	50	2	0	2	0	3	0	108
Apprch %	8.2	85.7	6.1	0	0	0	0	0	3.7	92.6	3.7	0	40	0	60	0	
Total %	3.7	38.9	2.8	0	0	0	0	0	1.9	46.3	1.9	0	1.9	0	2.8	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	8	1	0	10	0	0	0	0	0	0	8	0	0	8	0	0	2	0	2	20
04:15 PM	0	6	1	0	7	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	17
04:30 PM	0	10	0	0	10	0	0	0	0	0	1	7	2	0	10	0	0	1	0	1	21
04:45 PM	1	5	0	0	6	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	12
Total Volume	2	29	2	0	33	0	0	0	0	0	1	30	2	0	33	1	0	3	0	4	70
% App. Total	6.1	87.9	6.1	0		0	0	0	0		3	90.9	6.1	0		25	0	75	0		
PHF	.500	.725	.500	.000	.825	.000	.000	.000	.000	.000	.250	.750	.250	.000	.825	.250	.000	.375	.000	.500	.833

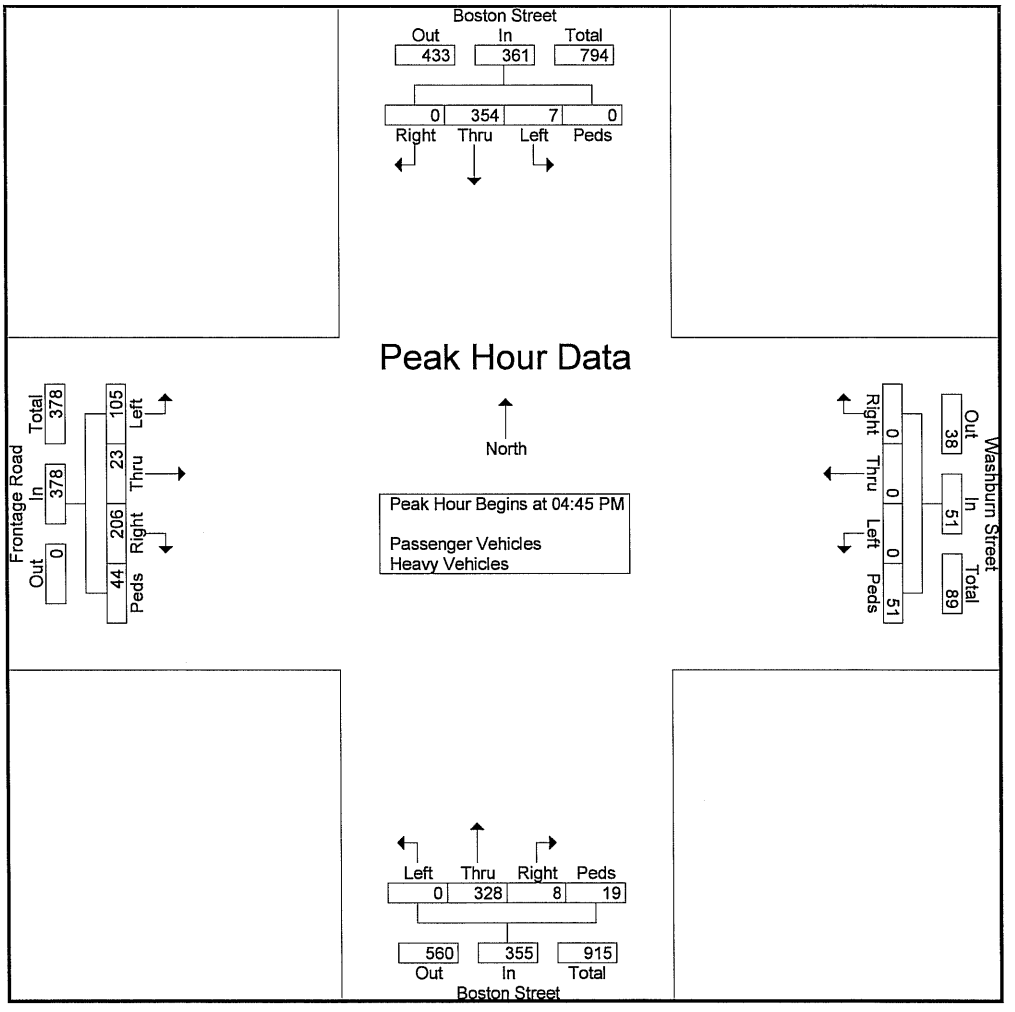
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28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn PM
Site Code : 00804002
Start Date : 2/26/2015
Page No : 2

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	**97**	2	0	**99**	0	0	0	6	6	**2**	76	0	4	82	53	4	26	11	94	281
05:00 PM	0	85	2	0	87	0	0	0	14	14	2	**92**	0	**7**	**101**	**59**	4	24	10	**97**	**299**
05:15 PM	0	79	**3**	0	82	0	0	0	**22**	**22**	2	90	0	4	96	55	7	25	8	95	295
05:30 PM	0	93	0	0	93	0	0	0	9	9	2	70	0	4	76	39	**8**	**30**	**15**	92	270
Total Volume	0	354	7	0	361	0	0	0	51	51	8	328	0	19	355	206	23	105	44	378	1145
% App. Total	0	98.1	1.9	0		0	0	0	100		2.3	92.4	0	5.4		54.5	6.1	27.8	11.6		
PHF	.000	.912	.583	.000	.912	.000	.000	.000	.580	.580	1.00	.891	.000	.679	.879	.873	.719	.875	.733	.974	.957



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28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn PM
Site Code : 00804002
Start Date : 2/26/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

	Boston Street From North				Washburn Street From East				Boston Street From South				Frontage Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:45 PM	0	97	2	0	0	0	0	6	2	76	0	4	53	4	26	11	281
Total	0	97	2	0	0	0	0	6	2	76	0	4	53	4	26	11	281
05:00 PM	0	85	2	0	0	0	0	14	2	92	0	7	59	4	24	10	299
05:15 PM	0	79	3	0	0	0	0	22	2	90	0	4	55	7	25	8	295
05:30 PM	0	93	0	0	0	0	0	9	2	70	0	4	39	8	30	15	270
Grand Total	0	354	7	0	0	0	0	51	8	328	0	19	206	23	105	44	1145
Apprch %	0	98.1	1.9	0	0	0	0	100	2.3	92.4	0	5.4	54.5	6.1	27.8	11.6	
Total %	0	30.9	0.6	0	0	0	0	4.5	0.7	28.6	0	1.7	18	2	9.2	3.8	
Passenger Vehicles	0	344	7	0	0	0	0	50	8	309	0	19	202	23	104	44	1110
% Passenger Vehicles	0	97.2	100	0	0	0	0	98	100	94.2	0	100	98.1	100	99	100	96.9
Heavy Vehicles	0	10	0	0	0	0	0	1	0	19	0	0	4	0	1	0	35
% Heavy Vehicles	0	2.8	0	0	0	0	0	2	0	5.8	0	0	1.9	0	1	0	3.1

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn PM
Site Code : 00804002
Start Date : 2/26/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Boston Street From North				Washburn Street From East				Boston Street From South				Frontage Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:45 PM	0	96	2	0	0	0	0	5	2	72	0	4	53	4	26	11	275
Total	0	96	2	0	0	0	0	5	2	72	0	4	53	4	26	11	275
05:00 PM	0	81	2	0	0	0	0	14	2	85	0	7	57	4	24	10	286
05:15 PM	0	78	3	0	0	0	0	22	2	84	0	4	53	7	24	8	285
05:30 PM	0	89	0	0	0	0	0	9	2	68	0	4	39	8	30	15	264
Grand Total	0	344	7	0	0	0	0	50	8	309	0	19	202	23	104	44	1110
Apprch %	0	98	2	0	0	0	0	100	2.4	92	0	5.7	54.2	6.2	27.9	11.8	
Total %	0	31	0.6	0	0	0	0	4.5	0.7	27.8	0	1.7	18.2	2.1	9.4	4	

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn PM
Site Code : 00804002
Start Date : 2/26/2015
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North				Washburn Street From East				Boston Street From South				Frontage Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:45 PM	0	1	0	0	0	0	0	1	0	4	0	0	0	0	0	0	6
Total	0	1	0	0	0	0	0	1	0	4	0	0	0	0	0	0	6
05:00 PM	0	4	0	0	0	0	0	0	0	7	0	0	2	0	0	0	13
05:15 PM	0	1	0	0	0	0	0	0	0	6	0	0	2	0	1	0	10
05:30 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	6
Grand Total	0	10	0	0	0	0	0	1	0	19	0	0	4	0	1	0	35
Apprch %	0	100	0	0	0	0	0	100	0	100	0	0	80	0	20	0	
Total %	0	28.6	0	0	0	0	0	2.9	0	54.3	0	0	11.4	0	2.9	0	

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EE
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	15	25	23	4	3	0	4	46	34	11	1	0	1	5	51	14	0	0	4	12	21	12	1	0	1	3	33	27	42	0	6	12	52	36	19	0	518
04:15 PM	9	27	29	2	2	0	4	34	32	16	1	0	1	1	64	15	4	0	5	18	32	23	0	0	3	10	23	26	29	0	5	6	45	33	12	0	511
04:30 PM	11	28	27	6	0	0	1	26	35	20	2	0	2	2	70	6	5	0	3	19	27	11	0	0	0	9	28	28	32	0	3	9	73	24	18	0	525
04:45 PM	4	27	37	8	3	0	5	34	48	18	1	0	2	3	45	6	5	0	1	18	25	19	0	0	0	5	21	29	46	0	1	12	42	41	19	0	525
Total	39	107	116	20	8	0	14	140	149	65	5	0	6	11	230	41	14	0	13	67	105	65	1	0	4	27	105	110	149	0	15	39	212	134	68	0	2079
05:00 PM	10	25	38	6	0	0	4	35	29	7	2	0	2	3	45	8	2	0	7	19	30	21	1	0	0	8	21	34	34	1	0	12	36	35	21	0	496
05:15 PM	19	28	37	4	3	0	7	37	37	12	1	0	0	6	60	7	1	0	7	12	24	17	0	0	3	11	25	33	30	0	4	8	45	41	12	0	531
05:30 PM	17	17	36	9	1	0	7	39	39	14	0	0	0	6	45	13	4	0	4	16	18	23	1	0	1	9	35	21	20	2	4	5	54	37	16	0	513
05:45 PM	16	31	46	2	0	0	5	41	28	12	0	0	2	5	52	9	0	0	4	8	28	21	1	1	2	6	19	30	34	1	2	3	50	34	18	0	511
Total	62	101	157	21	4	0	23	152	133	45	3	0	4	20	202	37	7	0	22	55	100	82	3	1	6	34	100	118	118	4	10	28	185	147	67	0	2051
Grand Total	101	208	273	41	12	0	37	292	282	110	8	0	10	31	432	78	21	0	35	122	205	147	4	1	10	61	205	228	267	4	25	67	397	281	135	0	4130
Apprch %	15.9	32.8	43	6.5	1.9	0	5.1	40.1	38.7	15.1	1.1	0	1.7	5.4	75.5	13.6	3.7	0	6.8	23.7	39.9	28.6	0.8	0.2	1.3	7.9	26.5	29.4	34.5	0.5	2.8	7.4	43.9	31	14.9	0	
Total %	2.4	5	6.6	1	0.3	0	0.9	7.1	6.8	2.7	0.2	0	0.2	0.8	10.5	1.9	0.5	0	0.8	3	5	3.6	0.1	0	0.2	1.5	5	5.5	6.5	0.1	0.6	1.6	9.6	6.8	3.3	0	
HV	38	18	16	6	6	0	4	14	14	5	2	0	2	6	21	2	2	0	1	14	5	10	1	0	0	2	11	8	26	0	2	2	16	2	2	0	
HV%	37	9	6	13	33	0	0	5	5	4	20	0	17	0	5	3	9	0	3	10	2	6	20	0	0	3	5	3	9	0	7	3	4	1	1	0	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 04:00 PM																																										
04:00 PM	15	25	23	4	3	0	70	4	46	34	11	1	0	96	1	5	51	14	0	0	71	4	12	21	12	1	0	50	1	3	33	27	42	0	106	6	12	52	36	19	0	125	518
04:15 PM	9	27	29	2	2	0	69	4	34	32	16	1	0	87	1	1	64	15	4	0	85	5	18	32	23	0	0	78	3	10	23	26	29	0	91	5	6	45	33	12	0	101	511
04:30 PM	11	28	27	6	0	0	72	1	26	35	20	2	0	84	2	2	70	6	5	0	85	3	19	27	11	0	0	60	0	9	28	28	32	0	97	3	9	73	24	18	0	127	525
04:45 PM	4	27	37	8	3	0	79	5	34	48	18	1	0	106	2	3	45	6	5	0	61	1	18	25	19	0	0	63	0	5	21	29	46	0	101	1	12	42	41	19	0	115	525
Total Volume	39	10 7	11 6	20	8	0	290	14	14 0	14 9	65	5	0	373	6	11	23 0	41	14	0	302	13	67	10 5	65	1	0	251	4	27	10 5	11 0	14 9	0	395	15	39	21 2	13 4	68	0	468	2079
% App Total	13.4	36.9	40	6.9	2.8	0		3.8	37.5	39.9	17.4	1.3	0		2	3.6	76.2	13.6	4.6	0		5.2	26.7	41.8	25.9	0.4	0		1	6.8	26.6	27.8	37.7	0		3.2	8.3	45.3	28.6	14.5	0		
PHF	.65 0	.95 5	.78 4	.62 5	.66 7	.00 0	.918	.70 0	.76 1	.77 6	.81 3	.62 5	.00 0	.880	.75 0	.55 0	.82 1	.68 3	.70 0	.00 0	.888	.65 0	.88 2	.82 0	.70 7	.25 0	.00 0	.804	.33 3	.67 5	.79 5	.94 8	.81 0	.00 0	.932	.62 5	.81 3	.72 6	.81 7	.89 5	.00 0	.921	.990

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EE
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	15	25	23	4	3	0	4	46	34	11	1	0	1	5	51	14	0	0	4	12	21	12	1	0	1	3	33	27	42	0	6	12	52	36	19	0	518
04:15 PM	9	27	29	2	2	0	4	34	32	16	1	0	1	1	64	15	4	0	5	18	32	23	0	0	3	10	23	26	29	0	5	6	45	33	12	0	511
04:30 PM	11	28	27	6	0	0	1	26	35	20	2	0	2	2	70	6	5	0	3	19	27	11	0	0	0	9	28	28	32	0	3	9	73	24	18	0	525
04:45 PM	4	27	37	8	3	0	5	34	48	18	1	0	2	3	45	6	5	0	1	18	25	19	0	0	0	5	21	29	46	0	1	12	42	41	19	0	525
Total	39	107	116	20	8	0	14	140	149	65	5	0	6	11	230	41	14	0	13	67	105	65	1	0	4	27	105	110	149	0	15	39	212	134	68	0	2079
05:00 PM	10	25	38	6	0	0	4	35	29	7	2	0	2	3	45	8	2	0	7	19	30	21	1	0	0	8	21	34	34	1	0	12	36	35	21	0	496
05:15 PM	19	28	37	4	3	0	7	37	37	12	1	0	0	6	60	7	1	0	7	12	24	17	0	0	3	11	25	33	30	0	4	8	45	41	12	0	531
05:30 PM	17	17	36	9	1	0	7	39	39	14	0	0	0	6	45	13	4	0	4	16	18	23	1	0	1	9	35	21	20	2	4	5	54	37	16	0	513
05:45 PM	16	31	46	2	0	0	5	41	28	12	0	0	2	5	52	9	0	0	4	8	28	21	1	1	2	6	19	30	34	1	2	3	50	34	18	0	511
Total	62	101	157	21	4	0	23	152	133	45	3	0	4	20	202	37	7	0	22	55	100	82	3	1	6	34	100	118	118	4	10	28	185	147	67	0	2051
Grand Total	101	208	273	41	12	0	37	292	282	110	8	0	10	31	432	78	21	0	35	122	205	147	4	1	10	61	205	228	267	4	25	67	397	281	135	0	4130
Apprch %	15.9	32.8	43	6.5	1.9	0	5.1	40.1	38.7	15.1	1.1	0	1.7	5.4	75.5	13.6	3.7	0	6.8	23.7	39.9	28.6	0.8	0.2	1.3	7.9	26.5	29.4	34.5	0.5	2.8	7.4	43.9	31	14.9	0	
Total %	2.4	5	6.6	1	0.3	0	0.9	7.1	6.8	2.7	0.2	0	0.2	0.8	10.5	1.9	0.5	0	0.8	3	5	3.6	0.1	0	0.2	1.5	5	5.5	6.5	0.1	0.6	1.6	9.6	6.8	3.3	0	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 04:00 PM																																										
04:00 PM	15	25	23	4	3	0	70	4	46	34	11	1	0	96	1	5	51	14	0	0	71	4	12	21	12	1	0	50	1	3	33	27	42	0	106	6	12	52	36	19	0	125	518
04:15 PM	9	27	29	2	2	0	69	4	34	32	16	1	0	87	1	1	64	15	4	0	85	5	18	32	23	0	0	78	3	10	23	26	29	0	91	5	6	45	33	12	0	101	511
04:30 PM	11	28	27	6	0	0	72	1	26	35	20	2	0	84	2	2	70	6	5	0	85	3	19	27	11	0	0	60	0	9	28	28	32	0	97	3	9	73	24	18	0	127	525
04:45 PM	4	27	37	8	3	0	79	5	34	48	18	1	0	106	2	3	45	6	5	0	61	1	18	25	19	0	0	63	0	5	21	29	46	0	101	1	12	42	41	19	0	115	525
Total Volume	39	10 7	11 6	20	8	0	290	14	14 0	14 9	65	5	0	373	6	11	23 0	41	14	0	302	13	67	10 5	65	1	0	251	4	27	10 5	11 0	14 9	0	395	15	39	21 2	13 4	68	0	468	2079
% App. Total	13. 4	36. 9	40	6.9	2.8	0		3.8	37. 5	39. 9	17. 4	1.3	0		2	3.6	76. 2	13. 6	4.6	0		5.2	26. 7	41. 8	25. 9	0.4	0		1	6.8	26. 6	27. 8	37. 7	0		3.2	8.3	45. 3	28. 6	14. 5	0		
PHF	.65 0	.95 5	.78 4	.62 5	.66 7	.00 0	.918	.70 0	.76 1	.77 6	.81 3	.62 5	.00 0	.880	.75 0	.55 0	.82 1	.68 3	.70 0	.00 0	.888	.65 0	.88 2	.82 0	.70 7	.25 0	.00 0	.804	.33 3	.67 5	.79 5	.94 8	.81 0	.00 0	.932	.62 5	.81 3	.72 6	.81 7	.89 5	.00 0	.921	.990

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Groups Printed- Heavy Vehicles

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
04:00 PM	7	2	4	1	1	0	0	0	3	2	1	0	1	0	4	1	1	0	0	5	1	1	0	0	0	0	4	1	3	0	1	0	2	1	0	0	47
04:15 PM	8	3	2	0	0	0	0	1	2	1	0	0	0	0	3	0	0	0	1	1	0	0	0	0	0	0	4	4	3	0	0	0	4	0	0	0	37
04:30 PM	6	4	1	2	1	0	0	2	4	0	1	0	0	0	2	0	0	0	0	1	1	1	0	0	0	0	2	1	5	0	1	1	1	0	0	0	37
04:45 PM	4	2	3	0	1	0	0	3	1	0	0	0	0	0	3	0	0	0	0	0	1	2	0	0	0	1	0	0	3	0	0	0	6	0	1	0	31
Total	25	11	10	3	3	0	0	6	10	3	2	0	1	0	12	1	1	0	1	7	3	4	0	0	0	1	10	6	14	0	2	1	13	1	1	0	152
05:00 PM	5	2	0	1	1	0	0	2	1	1	0	0	0	0	4	0	0	0	0	1	0	2	0	0	0	0	0	1	7	0	0	0	1	0	1	0	30
05:15 PM	1	1	1	0	0	0	0	1	1	1	0	0	0	0	3	0	1	0	0	4	1	3	0	0	0	0	1	0	2	0	0	0	0	0	0	0	21
05:30 PM	3	1	4	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	2	0	0	1	1	1	0	0	21
05:45 PM	4	3	1	1	1	0	0	3	2	0	0	0	1	0	2	1	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	1	0	0	0	24
Total	13	7	6	3	3	0	0	8	4	2	0	0	1	0	9	1	1	0	0	7	2	6	1	0	0	1	1	2	12	0	0	1	3	1	1	0	96
Grand Total	38	18	16	6	6	0	0	14	14	5	2	0	2	0	21	2	2	0	1	14	5	10	1	0	0	2	11	8	26	0	2	2	16	2	2	0	248
Apprch %	45.2	21.4	19	7.1	7.1	0	0	40	40	14.3	5.7	0	7.4	0	77.8	7.4	7.4	0	3.2	45.2	16.1	32.3	3.2	0	0	4.3	23.4	17	55.3	0	8.3	8.3	66.7	8.3	8.3	0	
Total %	15.3	7.3	6.5	2.4	2.4	0	0	5.6	5.6	2	0.8	0	0.8	0	8.5	0.8	0.8	0	0.4	5.6	2	4	0.4	0	0	0.8	4.4	3.2	10.5	0	0.8	0.8	6.5	0.8	0.8	0	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																										
Peak Hour for Entire Intersection Begins at 04:00 PM																																										
04:00 PM	7	2	4	1	1	0	15	0	0	3	2	1	0	6	1	0	4	1	1	0	7	0	5	1	1	0	0	7	0	0	4	1	3	0	8	1	0	2	1	0	0	4	47
04:15 PM	8	3	2	0	0	0	13	0	1	2	1	0	0	4	0	0	3	0	0	0	3	1	1	0	0	0	0	2	0	0	4	4	3	0	11	0	0	4	0	0	0	4	37
04:30 PM	6	4	1	2	1	0	14	0	2	4	0	1	0	7	0	0	2	0	0	0	2	0	1	1	1	0	0	3	0	0	2	1	5	0	8	1	1	1	0	0	0	3	37
04:45 PM	4	2	3	0	1	0	10	0	3	1	0	0	0	4	0	0	3	0	0	0	3	0	0	1	2	0	0	3	0	1	0	0	3	0	4	0	0	6	0	1	0	7	31
Total Volume	25	11	10	3	3	0	52	0	6	10	3	2	0	21	1	0	12	1	1	0	15	1	7	3	4	0	0	15	0	1	10	6	14	0	31	2	1	13	1	1	0	18	152
% App. Total	48.1	21.2	19.2	5.8	5.8	0		0	28.6	47.6	14.3	9.5	0		6.7	0	80	6.7	6.7	0		6.7	46.7	20	26.7	0	0		0	3.2	32.3	19.4	45.2	0		11.1	5.6	72.2	5.6	5.6	0		
PHF	.78	.68	.62	.37	.75	.00	.867	.00	.50	.62	.37	.50	.00	.750	.25	.00	.75	.25	.25	.00	.536	.25	.35	.75	.50	.00	.00	.536	.00	.25	.62	.37	.70	.00	.705	.50	.25	.54	.25	.25	.00	.643	.809

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FF
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	5	0	0	0	60	132	0	1	17	4	60	0	0	154	55	0	488
04:15 PM	6	0	0	0	71	138	0	0	18	6	48	0	0	136	46	0	469
04:30 PM	4	0	0	0	67	117	0	0	23	6	38	0	0	120	46	0	421
04:45 PM	5	0	0	0	58	115	0	0	23	4	53	0	0	128	47	0	433
Total	20	0	0	0	256	502	0	1	81	20	199	0	0	538	194	0	1811
05:00 PM	1	0	0	0	73	118	0	0	20	3	49	0	2	119	44	0	429
05:15 PM	4	0	0	0	71	121	0	0	10	4	45	0	0	101	42	0	398
05:30 PM	3	0	0	0	52	115	0	0	20	7	49	0	0	118	31	0	395
05:45 PM	3	0	0	0	64	134	0	0	23	2	59	0	0	91	27	0	403
Total	11	0	0	0	260	488	0	0	73	16	202	0	2	429	144	0	1625
Grand Total	31	0	0	0	516	990	0	1	154	36	401	0	2	967	338	0	3436
Apprch %	100	0	0	0	34.2	65.7	0	0.1	26.1	6.1	67.9	0	0.2	74	25.9	0	
Total %	0.9	0	0	0	15	28.8	0	0	4.5	1	11.7	0	0.1	28.1	9.8	0	
Cars	30	0	0	0	480	941	0	1	152	35	382	0	2	919	291	0	3233
% Cars	96.8	0	0	0	93	95.1	0	100	98.7	97.2	95.3	0	100	95	86.1	0	94.1
Heavy Vehicles	1	0	0	0	36	49	0	0	2	1	19	0	0	48	47	0	203
% Heavy Vehicles	3.2	0	0	0	7	4.9	0	0	1.3	2.8	4.7	0	0	5	13.9	0	5.9

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	5	0	0	0	5	60	132	0	1	193	17	4	60	0	81	0	154	55	0	209	488
04:15 PM	6	0	0	0	6	71	138	0	0	209	18	6	48	0	72	0	136	46	0	182	469
04:30 PM	4	0	0	0	4	67	117	0	0	184	23	6	38	0	67	0	120	46	0	166	421
04:45 PM	5	0	0	0	5	58	115	0	0	173	23	4	53	0	80	0	128	47	0	175	433
Total Volume	20	0	0	0	20	256	502	0	1	759	81	20	199	0	300	0	538	194	0	732	1811
% App. Total	100	0	0	0		33.7	66.1	0	0.1		27	6.7	66.3	0		0	73.5	26.5	0		
PHF	.833	.000	.000	.000	.833	.901	.909	.000	.250	.908	.880	.833	.829	.000	.926	.000	.873	.882	.000	.876	.928
Cars	20	0	0	0	20	238	472	0	1	711	80	19	185	0	284	0	508	157	0	665	1680
% Cars	100	0	0	0	100	93.0	94.0	0	100	93.7	98.8	95.0	93.0	0	94.7	0	94.4	80.9	0	90.8	92.8
Heavy Vehicles	0	0	0	0	0	18	30	0	0	48	1	1	14	0	16	0	30	37	0	67	131
% Heavy Vehicles	0	0	0	0	0	7.0	6.0	0	0	6.3	1.2	5.0	7.0	0	5.3	0	5.6	19.1	0	9.2	7.2

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FF
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	5	0	0	0	56	126	0	1	17	4	55	0	0	147	45	0	456
04:15 PM	6	0	0	0	65	130	0	0	18	6	43	0	0	129	36	0	433
04:30 PM	4	0	0	0	63	107	0	0	23	6	37	0	0	113	37	0	390
04:45 PM	5	0	0	0	54	109	0	0	22	3	50	0	0	119	39	0	401
Total	20	0	0	0	238	472	0	1	80	19	185	0	0	508	157	0	1680
05:00 PM	1	0	0	0	68	108	0	0	20	3	47	0	2	116	41	0	406
05:15 PM	4	0	0	0	63	120	0	0	9	4	44	0	0	99	39	0	382
05:30 PM	2	0	0	0	48	112	0	0	20	7	48	0	0	111	30	0	378
05:45 PM	3	0	0	0	63	129	0	0	23	2	58	0	0	85	24	0	387
Total	10	0	0	0	242	469	0	0	72	16	197	0	2	411	134	0	1553
Grand Total	30	0	0	0	480	941	0	1	152	35	382	0	2	919	291	0	3233
Apprch %	100	0	0	0	33.8	66.2	0	0.1	26.7	6.2	67.1	0	0.2	75.8	24	0	
Total %	0.9	0	0	0	14.8	29.1	0	0	4.7	1.1	11.8	0	0.1	28.4	9	0	

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	5	0	0	0	5	56	126	0	1	183	17	4	55	0	76	0	147	45	0	192	456
04:15 PM	6	0	0	0	6	65	130	0	0	195	18	6	43	0	67	0	129	36	0	165	433
04:30 PM	4	0	0	0	4	63	107	0	0	170	23	6	37	0	66	0	113	37	0	150	390
04:45 PM	5	0	0	0	5	54	109	0	0	163	22	3	50	0	75	0	119	39	0	158	401
Total Volume	20	0	0	0	20	238	472	0	1	711	80	19	185	0	284	0	508	157	0	665	1680
% App. Total	100	0	0	0		33.5	66.4	0	0.1		28.2	6.7	65.1	0		0	76.4	23.6	0		
PHF	.833	.000	.000	.000	.833	.915	.908	.000	.250	.912	.870	.792	.841	.000	.934	.000	.864	.872	.000	.866	.921

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FF
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	4	6	0	0	0	0	5	0	0	7	10	0	32
04:15 PM	0	0	0	0	6	8	0	0	0	0	5	0	0	7	10	0	36
04:30 PM	0	0	0	0	4	10	0	0	0	0	1	0	0	7	9	0	31
04:45 PM	0	0	0	0	4	6	0	0	1	1	3	0	0	9	8	0	32
Total	0	0	0	0	18	30	0	0	1	1	14	0	0	30	37	0	131
05:00 PM	0	0	0	0	5	10	0	0	0	0	2	0	0	3	3	0	23
05:15 PM	0	0	0	0	8	1	0	0	1	0	1	0	0	2	3	0	16
05:30 PM	1	0	0	0	4	3	0	0	0	0	1	0	0	7	1	0	17
05:45 PM	0	0	0	0	1	5	0	0	0	0	1	0	0	6	3	0	16
Total	1	0	0	0	18	19	0	0	1	0	5	0	0	18	10	0	72
Grand Total	1	0	0	0	36	49	0	0	2	1	19	0	0	48	47	0	203
Apprch %	100	0	0	0	42.4	57.6	0	0	9.1	4.5	86.4	0	0	50.5	49.5	0	
Total %	0.5	0	0	0	17.7	24.1	0	0	1	0.5	9.4	0	0	23.6	23.2	0	

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	0	0	0	4	6	0	0	10	0	0	5	0	5	0	7	10	0	17	32
04:15 PM	0	0	0	0	0	6	8	0	0	14	0	0	5	0	5	0	7	10	0	17	36
04:30 PM	0	0	0	0	0	4	10	0	0	14	0	0	1	0	1	0	7	9	0	16	31
04:45 PM	0	0	0	0	0	4	6	0	0	10	1	1	3	0	5	0	9	8	0	17	32
Total Volume	0	0	0	0	0	18	30	0	0	48	1	1	14	0	16	0	30	37	0	67	131
% App. Total	0	0	0	0		37.5	62.5	0	0		6.2	6.2	87.5	0		0	44.8	55.2	0		
PHF	.000	.000	.000	.000	.000	.750	.750	.000	.000	.857	.250	.250	.700	.000	.800	.000	.833	.925	.000	.985	.910

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KK
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	32	28	0	0	0	0	0	0	0	0	0	0	20	0	0	0	80
04:15 PM	34	46	0	0	0	0	0	0	0	0	0	0	28	0	0	0	108
04:30 PM	28	30	0	0	0	0	0	0	0	0	0	0	13	0	0	0	71
04:45 PM	30	34	0	0	0	0	0	0	0	0	0	0	15	0	0	0	79
Total	124	138	0	0	0	0	0	0	0	0	0	0	76	0	0	0	338
05:00 PM	32	37	0	0	0	0	0	0	0	0	0	0	22	0	0	0	91
05:15 PM	25	53	0	0	0	0	0	0	0	0	0	0	19	0	0	0	97
05:30 PM	24	56	0	0	0	0	0	0	0	0	0	0	23	0	0	0	103
05:45 PM	54	75	0	0	0	0	0	0	0	0	0	0	24	0	0	0	153
Total	135	221	0	0	0	0	0	0	0	0	0	0	88	0	0	0	444
Grand Total	259	359	0	0	0	0	0	0	0	0	0	0	164	0	0	0	782
Apprch %	41.9	58.1	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	33.1	45.9	0	0	0	0	0	0	0	0	0	0	21	0	0	0	
Cars	244	346	0	0	0	0	0	0	0	0	0	0	162	0	0	0	752
% Cars	94.2	96.4	0	0	0	0	0	0	0	0	0	0	98.8	0	0	0	96.2
Heavy Vehicles	15	13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	30
% Heavy Vehicles	5.8	3.6	0	0	0	0	0	0	0	0	0	0	1.2	0	0	0	3.8

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	32	37	0	0	69	0	0	0	0	0	0	0	0	0	0	22	0	0	0	22	91
05:15 PM	25	53	0	0	78	0	0	0	0	0	0	0	0	0	0	19	0	0	0	19	97
05:30 PM	24	56	0	0	80	0	0	0	0	0	0	0	0	0	0	23	0	0	0	23	103
05:45 PM	54	75	0	0	129	0	0	0	0	0	0	0	0	0	0	24	0	0	0	24	153
Total Volume	135	221	0	0	356	0	0	0	0	0	0	0	0	0	0	88	0	0	0	88	444
% App. Total	37.9	62.1	0	0		0	0	0	0		0	0	0	0		100	0	0	0		
PHF	.625	.737	.000	.000	.690	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.917	.000	.000	.000	.917	.725
Cars	129	214	0	0	343	0	0	0	0	0	0	0	0	0	0	88	0	0	0	88	431
% Cars	95.6	96.8	0	0	96.3	0	0	0	0	0	0	0	0	0	0	100	0	0	0	100	97.1
Heavy Vehicles	6	7	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
% Heavy Vehicles	4.4	3.2	0	0	3.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.9

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KK
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Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	32	26	0	0	0	0	0	0	0	0	0	0	18	0	0	0	76
04:15 PM	29	43	0	0	0	0	0	0	0	0	0	0	28	0	0	0	100
04:30 PM	27	29	0	0	0	0	0	0	0	0	0	0	13	0	0	0	69
04:45 PM	27	34	0	0	0	0	0	0	0	0	0	0	15	0	0	0	76
Total	115	132	0	0	0	0	0	0	0	0	0	0	74	0	0	0	321
05:00 PM	29	36	0	0	0	0	0	0	0	0	0	0	22	0	0	0	87
05:15 PM	25	51	0	0	0	0	0	0	0	0	0	0	19	0	0	0	95
05:30 PM	24	53	0	0	0	0	0	0	0	0	0	0	23	0	0	0	100
05:45 PM	51	74	0	0	0	0	0	0	0	0	0	0	24	0	0	0	149
Total	129	214	0	0	0	0	0	0	0	0	0	0	88	0	0	0	431
Grand Total	244	346	0	0	0	0	0	0	0	0	0	0	162	0	0	0	752
Apprch %	41.4	58.6	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	32.4	46	0	0	0	0	0	0	0	0	0	0	21.5	0	0	0	

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	29	36	0	0	65	0	0	0	0	0	0	0	0	0	0	22	0	0	0	22	87
05:15 PM	25	51	0	0	76	0	0	0	0	0	0	0	0	0	0	19	0	0	0	19	95
05:30 PM	24	53	0	0	77	0	0	0	0	0	0	0	0	0	0	23	0	0	0	23	100
05:45 PM	51	74	0	0	125	0	0	0	0	0	0	0	0	0	0	24	0	0	0	24	149
Total Volume	129	214	0	0	343	0	0	0	0	0	0	0	0	0	0	88	0	0	0	88	431
% App. Total	37.6	62.4	0	0		0	0	0	0		0	0	0	0		100	0	0	0		
PHF	.632	.723	.000	.000	.686	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.917	.000	.000	.000	.917	.723

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
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Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4
04:15 PM	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
04:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	9	6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	17
05:00 PM	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Grand Total	15	13	0	0	0	0	0	0	0	0	0	0	2	0	0	0	30
Apprch %	53.6	46.4	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	50	43.3	0	0	0	0	0	0	0	0	0	0	6.7	0	0	0	

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	4
04:15 PM	5	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
04:30 PM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	9	6	0	0	15	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	17
% App. Total	60	40	0	0		0	0	0	0		0	0	0	0		100	0	0	0		
PHF	.450	.500	.000	.000	.469	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.531

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJ
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	201	0	0	0	0	0	44	0	0	0	0	126	0	0	371
04:15 PM	0	0	217	0	0	0	0	0	33	0	0	0	0	129	0	0	379
04:30 PM	0	0	185	0	0	0	0	0	42	0	0	0	0	141	0	0	368
04:45 PM	0	0	210	0	0	0	0	0	21	0	0	0	0	119	0	0	350
Total	0	0	813	0	0	0	0	0	140	0	0	0	0	515	0	0	1468
05:00 PM	0	0	180	0	0	0	0	0	25	0	0	0	0	133	0	0	338
05:15 PM	0	0	207	0	0	0	0	0	27	0	0	0	0	136	0	0	370
05:30 PM	0	0	195	0	0	0	0	0	27	0	0	0	0	116	0	0	338
05:45 PM	0	0	279	0	0	0	0	0	14	0	0	0	0	116	0	0	409
Total	0	0	861	0	0	0	0	0	93	0	0	0	0	501	0	0	1455
Grand Total	0	0	1674	0	0	0	0	0	233	0	0	0	0	1016	0	0	2923
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	57.3	0	0	0	0	0	8	0	0	0	0	34.8	0	0	
Cars	0	0	1604	0	0	0	0	0	231	0	0	0	0	995	0	0	2830
% Cars	0	0	95.8	0	0	0	0	0	99.1	0	0	0	0	97.9	0	0	96.8
Heavy Vehicles	0	0	70	0	0	0	0	0	2	0	0	0	0	21	0	0	93
% Heavy Vehicles	0	0	4.2	0	0	0	0	0	0.9	0	0	0	0	2.1	0	0	3.2

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	201	0	201	0	0	0	0	0	44	0	0	0	44	0	126	0	0	126	371
04:15 PM	0	0	217	0	217	0	0	0	0	0	33	0	0	0	33	0	129	0	0	129	379
04:30 PM	0	0	185	0	185	0	0	0	0	0	42	0	0	0	42	0	141	0	0	141	368
04:45 PM	0	0	210	0	210	0	0	0	0	0	21	0	0	0	21	0	119	0	0	119	350
Total Volume	0	0	813	0	813	0	0	0	0	0	140	0	0	0	140	0	515	0	0	515	1468
% App. Total	0	0	100	0		0	0	0	0		100	0	0	0		0	100	0	0		
PHF	.000	.000	.937	.000	.937	.000	.000	.000	.000	.000	.795	.000	.000	.000	.795	.000	.913	.000	.000	.913	.968
Cars	0	0	770	0	770	0	0	0	0	0	139	0	0	0	139	0	505	0	0	505	1414
% Cars	0	0	94.7	0	94.7	0	0	0	0	0	99.3	0	0	0	99.3	0	98.1	0	0	98.1	96.3
Heavy Vehicles	0	0	43	0	43	0	0	0	0	0	1	0	0	0	1	0	10	0	0	10	54
% Heavy Vehicles	0	0	5.3	0	5.3	0	0	0	0	0	0.7	0	0	0	0.7	0	1.9	0	0	1.9	3.7

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJ
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	194	0	0	0	0	0	43	0	0	0	0	123	0	0	360
04:15 PM	0	0	202	0	0	0	0	0	33	0	0	0	0	126	0	0	361
04:30 PM	0	0	174	0	0	0	0	0	42	0	0	0	0	140	0	0	356
04:45 PM	0	0	200	0	0	0	0	0	21	0	0	0	0	116	0	0	337
Total	0	0	770	0	0	0	0	0	139	0	0	0	0	505	0	0	1414
05:00 PM	0	0	173	0	0	0	0	0	24	0	0	0	0	131	0	0	328
05:15 PM	0	0	198	0	0	0	0	0	27	0	0	0	0	133	0	0	358
05:30 PM	0	0	191	0	0	0	0	0	27	0	0	0	0	110	0	0	328
05:45 PM	0	0	272	0	0	0	0	0	14	0	0	0	0	116	0	0	402
Total	0	0	834	0	0	0	0	0	92	0	0	0	0	490	0	0	1416
Grand Total	0	0	1604	0	0	0	0	0	231	0	0	0	0	995	0	0	2830
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	56.7	0	0	0	0	0	8.2	0	0	0	0	35.2	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	173	0	173	0	0	0	0	0	24	0	0	0	24	0	131	0	0	131	328
05:15 PM	0	0	198	0	198	0	0	0	0	0	27	0	0	0	27	0	133	0	0	133	358
05:30 PM	0	0	191	0	191	0	0	0	0	0	27	0	0	0	27	0	110	0	0	110	328
05:45 PM	0	0	272	0	272	0	0	0	0	0	14	0	0	0	14	0	116	0	0	116	402
Total Volume	0	0	834	0	834	0	0	0	0	0	92	0	0	0	92	0	490	0	0	490	1416
% App. Total	0	0	100	0		0	0	0	0		100	0	0	0		0	100	0	0		
PHF	.000	.000	.767	.000	.767	.000	.000	.000	.000	.000	.852	.000	.000	.000	.852	.000	.921	.000	.000	.921	.881

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJ
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	7	0	0	0	0	0	1	0	0	0	0	3	0	0	11
04:15 PM	0	0	15	0	0	0	0	0	0	0	0	0	0	3	0	0	18
04:30 PM	0	0	11	0	0	0	0	0	0	0	0	0	0	1	0	0	12
04:45 PM	0	0	10	0	0	0	0	0	0	0	0	0	0	3	0	0	13
Total	0	0	43	0	0	0	0	0	1	0	0	0	0	10	0	0	54
05:00 PM	0	0	7	0	0	0	0	0	1	0	0	0	0	2	0	0	10
05:15 PM	0	0	9	0	0	0	0	0	0	0	0	0	0	3	0	0	12
05:30 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	6	0	0	10
05:45 PM	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	0	0	27	0	0	0	0	0	1	0	0	0	0	11	0	0	39
Grand Total	0	0	70	0	0	0	0	0	2	0	0	0	0	21	0	0	93
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	75.3	0	0	0	0	0	2.2	0	0	0	0	22.6	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	0	7	0	7	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	11
04:15 PM	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	18
04:30 PM	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12
04:45 PM	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	13
Total Volume	0	0	43	0	43	0	0	0	0	0	1	0	0	0	1	0	10	0	0	10	54
% App. Total	0	0	100	0		0	0	0	0		100	0	0	0		0	100	0	0		
PHF	.000	.000	.717	.000	.717	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.000	.833	.000	.000	.833	.750

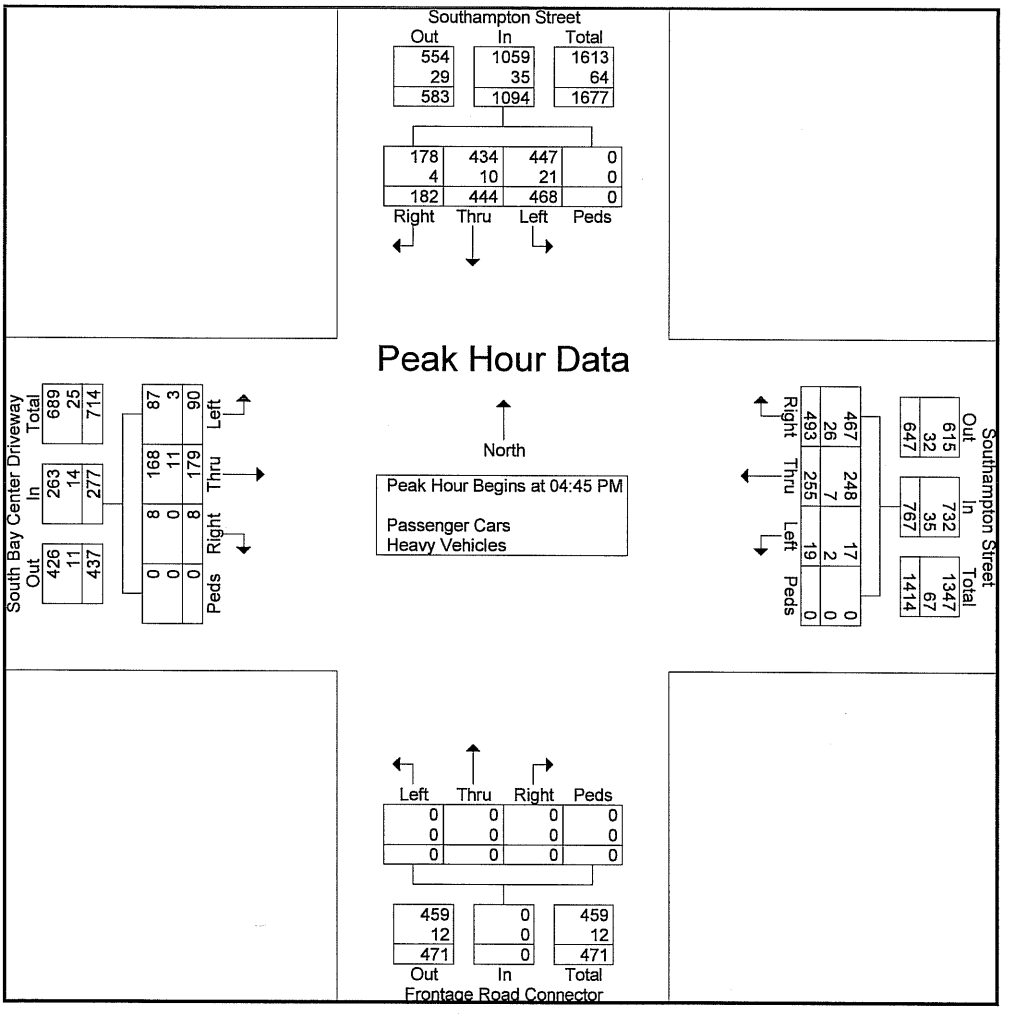
MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay PM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 2

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	35	116	111	0	262	128	61	**6**	0	195	0	0	0	0	0	2	**51**	20	0	73	530
05:00 PM	35	**130**	120	0	**285**	99	62	3	0	164	0	0	0	0	0	0	49	**28**	0	**77**	526
05:15 PM	**60**	92	113	0	265	**134**	**68**	5	0	**207**	0	0	0	0	0	**5**	46	24	0	75	**547**
05:30 PM	52	106	**124**	0	282	132	64	5	0	201	0	0	0	0	0	1	33	18	0	52	535
Total Volume	182	444	468	0	1094	493	255	19	0	767	0	0	0	0	0	8	179	90	0	277	2138
% App. Total	16.6	40.6	42.8	0		64.3	33.2	2.5	0		0	0	0	0		2.9	64.6	32.5	0		
PHF	.758	.854	.944	.000	.960	.920	.938	.792	.000	.926	.000	.000	.000	.000	.000	.400	.877	.804	.000	.899	.977
Passenger Cars	178	434	447	0	1059	467	248	17	0	732	0	0	0	0	0	8	168	87	0	263	2054
% Passenger Cars																					
Heavy Vehicles	4	10	21	0	35	26	7	2	0	35	0	0	0	0	0	0	11	3	0	14	84
% Heavy Vehicles	2.2	2.3	4.5	0	3.2	5.3	2.7	10.5	0	4.6	0	0	0	0	0	0	6.1	3.3	0	5.1	3.9



MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay PM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 1

Groups Printed- Passenger Cars - Heavy Vehicles

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:45 PM	35	116	111	0	262	128	61	6	0	195	0	0	0	0	0	2	51	20	0	73	530
Total	35	116	111	0	262	128	61	6	0	195	0	0	0	0	0	2	51	20	0	73	530
05:00 PM	35	130	120	0	285	99	62	3	0	164	0	0	0	0	0	0	49	28	0	77	526
05:15 PM	60	92	113	0	265	134	68	5	0	207	0	0	0	0	0	5	46	24	0	75	547
05:30 PM	52	106	124	0	282	132	64	5	0	201	0	0	0	0	0	1	33	18	0	52	535
Grand Total	182	444	468	0	1094	493	255	19	0	767	0	0	0	0	0	8	179	90	0	277	2138
Apprch %	16.6	40.6	42.8	0		64.3	33.2	2.5	0		0	0	0	0		2.9	64.6	32.5	0		
Total %	8.5	20.8	21.9	0	51.2	23.1	11.9	0.9	0	35.9	0	0	0	0	0	0.4	8.4	4.2	0	13	
Passenger Cars	178	434	447	0	1059	467	248	17	0	732	0	0	0	0	0	8	168	87	0	263	2054
% Passenger Cars																					
Heavy Vehicles	4	10	21	0	35	26	7	2	0	35	0	0	0	0	0	0	11	3	0	14	84
% Heavy Vehicles	2.2	2.3	4.5	0	3.2	5.3	2.7	10.5	0	4.6	0	0	0	0	0	0	6.1	3.3	0	5.1	3.9

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 AA
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road SB From North			South Boston Bypass Road From East			Frontage Road SB From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
04:00 PM	103	9	0	0	20	0	0	0	0	132
04:15 PM	156	13	0	0	20	3	0	0	0	192
04:30 PM	164	12	0	0	15	1	0	0	0	192
04:45 PM	168	11	0	0	12	2	0	0	0	193
Total	591	45	0	0	67	6	0	0	0	709
05:00 PM	170	22	0	0	14	0	0	0	0	206
05:15 PM	179	14	0	0	24	0	0	0	0	217
05:30 PM	170	20	0	0	20	0	0	0	0	210
05:45 PM	217	12	0	0	14	0	0	0	0	243
Total	736	68	0	0	72	0	0	0	0	876
Grand Total	1327	113	0	0	139	6	0	0	0	1585
Apprch %	92.2	7.8	0	0	95.9	4.1	0	0	0	
Total %	83.7	7.1	0	0	8.8	0.4	0	0	0	
Cars	1291	98	0	0	114	6	0	0	0	1509
% Cars	97.3	86.7	0	0	82	100	0	0	0	95.2
Heavy Vehicles	36	15	0	0	25	0	0	0	0	76
% Heavy Vehicles	2.7	13.3	0	0	18	0	0	0	0	4.8

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 05:00 PM													
05:00 PM	170	22	0	192	0	14	0	14	0	0	0	0	206
05:15 PM	179	14	0	193	0	24	0	24	0	0	0	0	217
05:30 PM	170	20	0	190	0	20	0	20	0	0	0	0	210
05:45 PM	217	12	0	229	0	14	0	14	0	0	0	0	243
Total Volume	736	68	0	804	0	72	0	72	0	0	0	0	876
% App. Total	91.5	8.5	0		0	100	0		0	0	0		
PHF	.848	.773	.000	.878	.000	.750	.000	.750	.000	.000	.000	.000	.901
Cars	721	57	0	778	0	57	0	57	0	0	0	0	835
% Cars	98.0	83.8	0	96.8	0	79.2	0	79.2	0	0	0	0	95.3
Heavy Vehicles	15	11	0	26	0	15	0	15	0	0	0	0	41
% Heavy Vehicles	2.0	16.2	0	3.2	0	20.8	0	20.8	0	0	0	0	4.7

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 BB
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road NB From North				South Boston Bypass Road From East				Frontage Road NB From South				South Boston Bypass Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
04:00 PM	0	0	0	0	28	12	0	0	42	307	5	0	0	2	6	0	402
04:15 PM	0	0	0	0	33	14	0	0	42	311	7	0	0	5	9	0	421
04:30 PM	0	0	0	0	33	13	0	1	40	328	3	0	0	2	12	1	433
04:45 PM	0	0	0	0	25	11	0	0	38	285	5	0	0	4	7	0	375
Total	0	0	0	0	119	50	0	1	162	1231	20	0	0	13	34	1	1631
05:00 PM	0	0	0	0	23	15	0	0	35	311	0	0	0	4	17	0	405
05:15 PM	0	0	0	0	33	20	0	0	47	298	5	0	0	9	6	0	418
05:30 PM	0	0	0	0	32	9	0	1	41	318	10	0	0	8	11	0	430
05:45 PM	0	0	0	0	29	14	0	0	34	245	2	0	0	6	7	0	337
Total	0	0	0	0	117	58	0	1	157	1172	17	0	0	27	41	0	1590
Grand Total	0	0	0	0	236	108	0	2	319	2403	37	0	0	40	75	1	3221
Apprch %	0	0	0	0	68.2	31.2	0	0.6	11.6	87.1	1.3	0	0	34.5	64.7	0.9	
Total %	0	0	0	0	7.3	3.4	0	0.1	9.9	74.6	1.1	0	0	1.2	2.3	0	
Cars	0	0	0	0	168	87	0	2	231	2324	33	0	0	28	73	1	2947
% Cars	0	0	0	0	71.2	80.6	0	100	72.4	96.7	89.2	0	0	70	97.3	100	91.5
Heavy Vehicles	0	0	0	0	68	21	0	0	88	79	4	0	0	12	2	0	274
% Heavy Vehicles	0	0	0	0	28.8	19.4	0	0	27.6	3.3	10.8	0	0	30	2.7	0	8.5

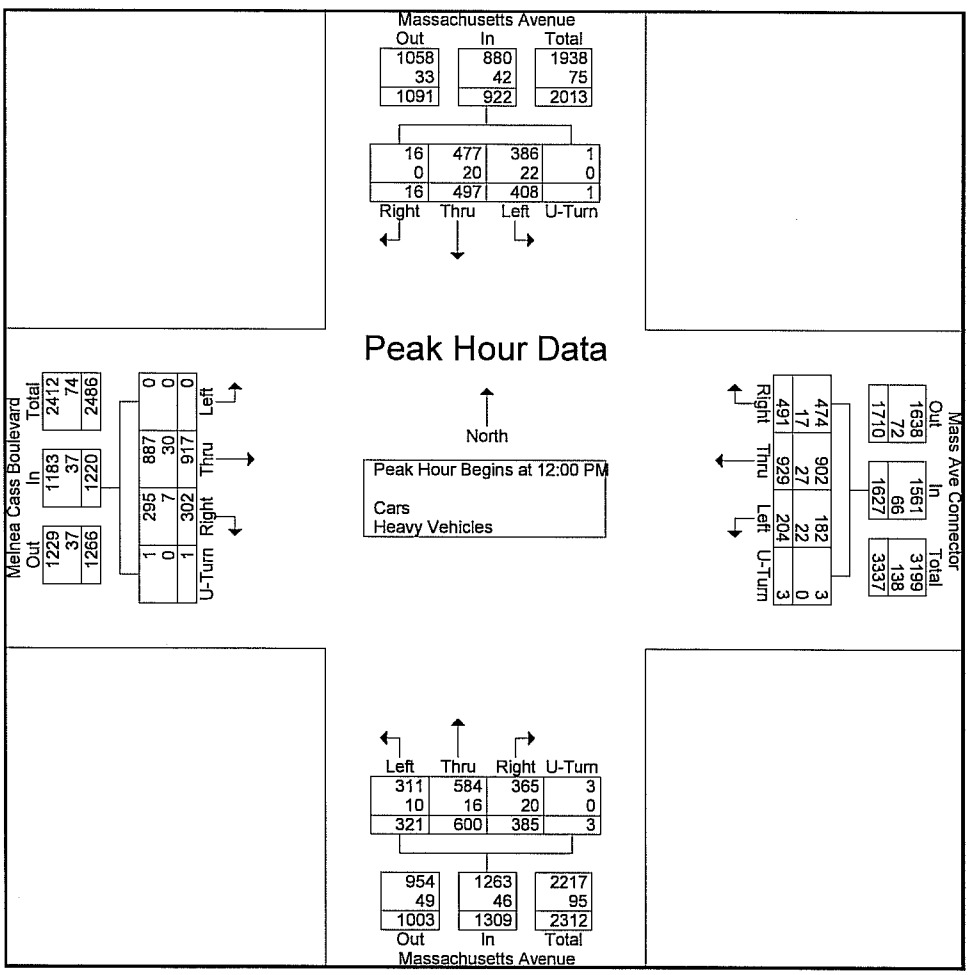
	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	0	0	0	0	33	14	0	0	47	42	311	7	0	360	0	5	9	0	14	421
04:30 PM	0	0	0	0	0	33	13	0	1	47	40	328	3	0	371	0	2	12	1	15	433
04:45 PM	0	0	0	0	0	25	11	0	0	36	38	285	5	0	328	0	4	7	0	11	375
05:00 PM	0	0	0	0	0	23	15	0	0	38	35	311	0	0	346	0	4	17	0	21	405
Total Volume	0	0	0	0	0	114	53	0	1	168	155	1235	15	0	1405	0	15	45	1	61	1634
% App. Total	0	0	0	0		67.9	31.5	0	0.6		11	87.9	1.1	0		0	24.6	73.8	1.6		
PHF	.000	.000	.000	.000	.000	.864	.883	.000	.250	.894	.923	.941	.536	.000	.947	.000	.750	.662	.250	.726	.943
Cars	0	0	0	0	0	73	46	0	1	120	123	1186	14	0	1323	0	11	44	1	56	1499
% Cars	0	0	0	0	0	64.0	86.8	0	100	71.4	79.4	96.0	93.3	0	94.2	0	73.3	97.8	100	91.8	91.7
Heavy Vehicles	0	0	0	0	0	41	7	0	0	48	32	49	1	0	82	0	4	1	0	5	135
% Heavy Vehicles	0	0	0	0	0	36.0	13.2	0	0	28.6	20.6	4.0	6.7	0	5.8	0	26.7	2.2	0	8.2	8.3

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Start Date : 11/15/2014
Page No : 1

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	116	85	0	207	134	220	61	1	416	99	139	83	0	321	71	242	0	1	314	1258
12:15 PM	3	131	119	1	254	101	236	39	0	376	110	154	76	0	340	73	206	0	0	279	1249
12:30 PM	1	134	101	0	236	127	234	42	2	405	79	150	77	3	309	86	233	0	0	319	1269
12:45 PM	6	116	103	0	225	129	239	62	0	430	97	157	85	0	339	72	236	0	0	308	1302
Total Volume	16	497	408	1	922	491	929	204	3	1627	385	600	321	3	1309	302	917	0	1	1220	5078
% App. Total	1.7	53.9	44.3	0.1		30.2	57.1	12.5	0.2		29.4	45.8	24.5	0.2		24.8	75.2	0	0.1		
PHF	.667	.927	.857	.250	.907	.916	.972	.823	.375	.946	.875	.955	.944	.250	.963	.878	.947	.000	.250	.956	.975
Cars	16	477	386	1	880	474	902	182	3	1561	365	584	311	3	1263	295	887	0	1	1183	4887
% Cars	100	96.0	94.6	100	95.4	96.5	97.1	89.2	100	95.9	94.8	97.3	96.9	100	96.5	97.7	96.7	0	100	97.0	96.2
Heavy Vehicles	0	20	22	0	42	17	27	22	0	66	20	16	10	0	46	7	30	0	0	37	191
% Heavy Vehicles	0	4.0	5.4	0	4.6	3.5	2.9	10.8	0	4.1	5.2	2.7	3.1	0	3.5	2.3	3.3	0	0	3.0	3.8



N/S: Massachusetts Avenue
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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	4	135	83	0	108	226	48	1	117	144	82	3	72	210	0	0	1233
11:15 AM	1	129	68	1	131	225	57	2	94	135	81	0	78	229	0	0	1231
11:30 AM	2	132	78	0	138	215	53	6	88	132	80	0	77	236	0	0	1237
11:45 AM	8	100	75	1	131	240	58	2	87	144	69	0	77	246	0	0	1238
Total	15	496	304	2	508	906	216	11	386	555	312	3	304	921	0	0	4939
12:00 PM	6	116	85	0	134	220	61	1	99	139	83	0	71	242	0	1	1258
12:15 PM	3	131	119	1	101	236	39	0	110	154	76	0	73	206	0	0	1249
12:30 PM	1	134	101	0	127	234	42	2	79	150	77	3	86	233	0	0	1269
12:45 PM	6	116	103	0	129	239	62	0	97	157	85	0	72	236	0	0	1302
Total	16	497	408	1	491	929	204	3	385	600	321	3	302	917	0	1	5078
Grand Total	31	993	712	3	999	1835	420	14	771	1155	633	6	606	1838	0	1	10017
Apprch %	1.8	57.1	40.9	0.2	30.6	56.2	12.9	0.4	30.1	45	24.7	0.2	24.8	75.2	0	0	
Total %	0.3	9.9	7.1	0	10	18.3	4.2	0.1	7.7	11.5	6.3	0.1	6	18.3	0	0	
Cars	31	940	681	3	969	1779	374	14	711	1122	618	6	588	1777	0	1	9614
% Cars	100	94.7	95.6	100	97	96.9	89	100	92.2	97.1	97.6	100	97	96.7	0	100	96
Heavy Vehicles	0	53	31	0	30	56	46	0	60	33	15	0	18	61	0	0	403
% Heavy Vehicles	0	5.3	4.4	0	3	3.1	11	0	7.8	2.9	2.4	0	3	3.3	0	0	4

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	116	85	0	207	134	220	61	1	416	99	139	83	0	321	71	242	0	1	314	1258
12:15 PM	3	131	119	1	254	101	236	39	0	376	110	154	76	0	340	73	206	0	0	279	1249
12:30 PM	1	134	101	0	236	127	234	42	2	405	79	150	77	3	309	86	233	0	0	319	1269
12:45 PM	6	116	103	0	225	129	239	62	0	430	97	157	85	0	339	72	236	0	0	308	1302
Total Volume	16	497	408	1	922	491	929	204	3	1627	385	600	321	3	1309	302	917	0	1	1220	5078
% App. Total	1.7	53.9	44.3	0.1		30.2	57.1	12.5	0.2		29.4	45.8	24.5	0.2		24.8	75.2	0	0.1		
PHF	.667	.927	.857	.250	.907	.916	.972	.823	.375	.946	.875	.955	.944	.250	.963	.878	.947	.000	.250	.956	.975
Cars	16	477	386	1	880	474	902	182	3	1561	365	584	311	3	1263	295	887	0	1	1183	4887
% Cars	100	96.0	94.6	100	95.4	96.5	97.1	89.2	100	95.9	94.8	97.3	96.9	100	96.5	97.7	96.7	0	100	97.0	96.2
Heavy Vehicles	0	20	22	0	42	17	27	22	0	66	20	16	10	0	46	7	30	0	0	37	191
% Heavy Vehicles	0	4.0	5.4	0	4.6	3.5	2.9	10.8	0	4.1	5.2	2.7	3.1	0	3.5	2.3	3.3	0	0	3.0	3.8

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

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Groups Printed- Cars

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	4	124	81	0	107	219	42	1	104	140	81	3	69	199	0	0	1174
11:15 AM	1	120	67	1	129	217	47	2	82	133	79	0	73	224	0	0	1175
11:30 AM	2	123	72	0	131	204	47	6	82	125	78	0	76	231	0	0	1177
11:45 AM	8	96	75	1	128	237	56	2	78	140	69	0	75	236	0	0	1201
Total	15	463	295	2	495	877	192	11	346	538	307	3	293	890	0	0	4727
12:00 PM	6	111	79	0	125	211	54	1	90	137	81	0	70	230	0	1	1196
12:15 PM	3	126	113	1	100	231	36	0	105	149	74	0	72	201	0	0	1211
12:30 PM	1	128	98	0	124	231	38	2	77	145	74	3	84	225	0	0	1230
12:45 PM	6	112	96	0	125	229	54	0	93	153	82	0	69	231	0	0	1250
Total	16	477	386	1	474	902	182	3	365	584	311	3	295	887	0	1	4887
Grand Total	31	940	681	3	969	1779	374	14	711	1122	618	6	588	1777	0	1	9614
Apprch %	1.9	56.8	41.1	0.2	30.9	56.7	11.9	0.4	28.9	45.7	25.2	0.2	24.9	75.1	0	0	
Total %	0.3	9.8	7.1	0	10.1	18.5	3.9	0.1	7.4	11.7	6.4	0.1	6.1	18.5	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	6	111	79	0	196	125	211	54	1	391	90	137	81	0	308	70	230	0	1	301	1196
12:15 PM	3	126	113	1	243	100	231	36	0	367	105	149	74	0	328	72	201	0	0	273	1211
12:30 PM	1	128	98	0	227	124	231	38	2	395	77	145	74	3	299	84	225	0	0	309	1230
12:45 PM	6	112	96	0	214	125	229	54	0	408	93	153	82	0	328	69	231	0	0	300	1250
Total Volume	16	477	386	1	880	474	902	182	3	1561	365	584	311	3	1263	295	887	0	1	1183	4887
% App. Total	1.8	54.2	43.9	0.1		30.4	57.8	11.7	0.2		28.9	46.2	24.6	0.2		24.9	75	0	0.1		
PHF	.667	.932	.854	.250	.905	.948	.976	.843	.375	.956	.869	.954	.948	.250	.963	.878	.960	.000	.250	.957	.977

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DDD
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Mass Ave Connector From East				Massachusetts Avenue From South				Melnea Cass Boulevard From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	11	2	0	1	7	6	0	13	4	1	0	3	11	0	0	59
11:15 AM	0	9	1	0	2	8	10	0	12	2	2	0	5	5	0	0	56
11:30 AM	0	9	6	0	7	11	6	0	6	7	2	0	1	5	0	0	60
11:45 AM	0	4	0	0	3	3	2	0	9	4	0	0	2	10	0	0	37
Total	0	33	9	0	13	29	24	0	40	17	5	0	11	31	0	0	212
12:00 PM	0	5	6	0	9	9	7	0	9	2	2	0	1	12	0	0	62
12:15 PM	0	5	6	0	1	5	3	0	5	5	2	0	1	5	0	0	38
12:30 PM	0	6	3	0	3	3	4	0	2	5	3	0	2	8	0	0	39
12:45 PM	0	4	7	0	4	10	8	0	4	4	3	0	3	5	0	0	52
Total	0	20	22	0	17	27	22	0	20	16	10	0	7	30	0	0	191
Grand Total	0	53	31	0	30	56	46	0	60	33	15	0	18	61	0	0	403
Apprch %	0	63.1	36.9	0	22.7	42.4	34.8	0	55.6	30.6	13.9	0	22.8	77.2	0	0	
Total %	0	13.2	7.7	0	7.4	13.9	11.4	0	14.9	8.2	3.7	0	4.5	15.1	0	0	

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	0	9	1	0	10	2	8	10	0	20	12	2	2	0	16	5	5	0	0	10	56
11:30 AM	0	9	6	0	15	7	11	6	0	24	6	7	2	0	15	1	5	0	0	6	60
11:45 AM	0	4	0	0	4	3	3	2	0	8	9	4	0	0	13	2	10	0	0	12	37
12:00 PM	0	5	6	0	11	9	9	7	0	25	9	2	2	0	13	1	12	0	0	13	62
Total Volume	0	27	13	0	40	21	31	25	0	77	36	15	6	0	57	9	32	0	0	41	215
% App. Total	0	67.5	32.5	0		27.3	40.3	32.5	0		63.2	26.3	10.5	0		22	78	0	0		
PHF	.000	.750	.542	.000	.667	.583	.705	.625	.000	.770	.750	.536	.750	.000	.891	.450	.667	.000	.000	.788	.867

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

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Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	8	119	0	0	0	0	0	0	0	66	24	0	26	0	18	0	261
11:15 AM	14	118	0	0	0	0	0	0	0	69	31	0	28	0	20	0	280
11:30 AM	14	133	0	0	0	0	0	0	0	61	29	0	18	0	18	0	273
11:45 AM	13	121	0	0	0	0	0	0	0	78	24	0	17	0	13	0	266
Total	49	491	0	0	0	0	0	0	0	274	108	0	89	0	69	0	1080
12:00 PM	13	98	0	0	0	0	0	0	0	84	32	0	34	0	26	0	287
12:15 PM	9	122	0	0	0	0	0	0	0	71	21	0	21	0	16	0	260
12:30 PM	13	115	0	0	0	0	0	0	0	74	19	0	42	0	21	0	284
12:45 PM	13	119	0	0	0	0	0	0	0	74	21	0	23	0	23	0	273
Total	48	454	0	0	0	0	0	0	0	303	93	0	120	0	86	0	1104
Grand Total	97	945	0	0	0	0	0	0	0	577	201	0	209	0	155	0	2184
Apprch %	9.3	90.7	0	0	0	0	0	0	0	74.2	25.8	0	57.4	0	42.6	0	
Total %	4.4	43.3	0	0	0	0	0	0	0	26.4	9.2	0	9.6	0	7.1	0	
Cars	96	904	0	0	0	0	0	0	0	557	196	0	208	0	150	0	2111
% Cars	99	95.7	0	0	0	0	0	0	0	96.5	97.5	0	99.5	0	96.8	0	96.7
Heavy Vehicles	1	41	0	0	0	0	0	0	0	20	5	0	1	0	5	0	73
% Heavy Vehicles	1	4.3	0	0	0	0	0	0	0	3.5	2.5	0	0.5	0	3.2	0	3.3

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	14	118	0	0	132	0	0	0	0	0	0	69	31	0	100	28	0	20	0	48	280
11:30 AM	14	133	0	0	147	0	0	0	0	0	0	61	29	0	90	18	0	18	0	36	273
11:45 AM	13	121	0	0	134	0	0	0	0	0	0	78	24	0	102	17	0	13	0	30	266
12:00 PM	13	98	0	0	111	0	0	0	0	0	0	84	32	0	116	34	0	26	0	60	287
Total Volume	54	470	0	0	524	0	0	0	0	0	0	292	116	0	408	97	0	77	0	174	1106
% App. Total	10.3	89.7	0	0		0	0	0	0		0	71.6	28.4	0		55.7	0	44.3	0		
PHF	.964	.883	.000	.000	.891	.000	.000	.000	.000	.000	.000	.869	.906	.000	.879	.713	.000	.740	.000	.725	.963
Cars	53	451	0	0	504	0	0	0	0	0	0	283	112	0	395	96	0	73	0	169	1068
% Cars	98.1	96.0	0	0	96.2	0	0	0	0	0	0	96.9	96.6	0	96.8	99.0	0	94.8	0	97.1	96.6
Heavy Vehicles	1	19	0	0	20	0	0	0	0	0	0	9	4	0	13	1	0	4	0	5	38
% Heavy Vehicles	1.9	4.0	0	0	3.8	0	0	0	0	0	0	3.1	3.4	0	3.2	1.0	0	5.2	0	2.9	3.4

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CCC
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	8	112	0	0	0	0	0	0	0	63	23	0	26	0	17	0	249
11:15 AM	14	114	0	0	0	0	0	0	0	68	31	0	27	0	19	0	273
11:30 AM	13	123	0	0	0	0	0	0	0	60	27	0	18	0	18	0	259
11:45 AM	13	117	0	0	0	0	0	0	0	74	22	0	17	0	12	0	255
Total	48	466	0	0	0	0	0	0	0	265	103	0	88	0	66	0	1036
12:00 PM	13	97	0	0	0	0	0	0	0	81	32	0	34	0	24	0	281
12:15 PM	9	115	0	0	0	0	0	0	0	71	21	0	21	0	16	0	253
12:30 PM	13	111	0	0	0	0	0	0	0	69	19	0	42	0	21	0	275
12:45 PM	13	115	0	0	0	0	0	0	0	71	21	0	23	0	23	0	266
Total	48	438	0	0	0	0	0	0	0	292	93	0	120	0	84	0	1075
Grand Total	96	904	0	0	0	0	0	0	0	557	196	0	208	0	150	0	2111
Apprch %	9.6	90.4	0	0	0	0	0	0	0	74	26	0	58.1	0	41.9	0	
Total %	4.5	42.8	0	0	0	0	0	0	0	26.4	9.3	0	9.9	0	7.1	0	

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	13	97	0	0	110	0	0	0	0	0	0	81	32	0	113	34	0	24	0	58	281
12:15 PM	9	115	0	0	124	0	0	0	0	0	0	71	21	0	92	21	0	16	0	37	253
12:30 PM	13	111	0	0	124	0	0	0	0	0	0	69	19	0	88	42	0	21	0	63	275
12:45 PM	13	115	0	0	128	0	0	0	0	0	0	71	21	0	92	23	0	23	0	46	266
Total Volume	48	438	0	0	486	0	0	0	0	0	0	292	93	0	385	120	0	84	0	204	1075
% App. Total	9.9	90.1	0	0		0	0	0	0		0	75.8	24.2	0		58.8	0	41.2	0		
PHF	.923	.952	.000	.000	.949	.000	.000	.000	.000	.000	.000	.901	.727	.000	.852	.714	.000	.875	.000	.810	.956

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CCC
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Magazine Street From East				Massachusetts Avenue From South				Magazine Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	7	0	0	0	0	0	0	0	3	1	0	0	0	1	0	12
11:15 AM	0	4	0	0	0	0	0	0	0	1	0	0	1	0	1	0	7
11:30 AM	1	10	0	0	0	0	0	0	0	1	2	0	0	0	0	0	14
11:45 AM	0	4	0	0	0	0	0	0	0	4	2	0	0	0	1	0	11
Total	1	25	0	0	0	0	0	0	0	9	5	0	1	0	3	0	44
12:00 PM	0	1	0	0	0	0	0	0	0	3	0	0	0	0	2	0	6
12:15 PM	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
12:30 PM	0	4	0	0	0	0	0	0	0	5	0	0	0	0	0	0	9
12:45 PM	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0	7
Total	0	16	0	0	0	0	0	0	0	11	0	0	0	0	2	0	29
Grand Total	1	41	0	0	0	0	0	0	0	20	5	0	1	0	5	0	73
Apprch %	2.4	97.6	0	0	0	0	0	0	0	80	20	0	16.7	0	83.3	0	
Total %	1.4	56.2	0	0	0	0	0	0	0	27.4	6.8	0	1.4	0	6.8	0	

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	7	0	0	7	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	12
11:15 AM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	7
11:30 AM	1	10	0	0	11	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	14
11:45 AM	0	4	0	0	4	0	0	0	0	0	0	4	2	0	6	0	0	1	0	1	11
Total Volume	1	25	0	0	26	0	0	0	0	0	0	9	5	0	14	1	0	3	0	4	44
% App. Total	3.8	96.2	0	0		0	0	0	0		0	64.3	35.7	0		25	0	75	0		
PHF	.250	.625	.000	.000	.591	.000	.000	.000	.000	.000	.000	.563	.625	.000	.583	.250	.000	.750	.000	.500	.786

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MMM
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	19	147	7	0	13	9	14	0	60	88	29	0	53	14	8	0	461
11:15 AM	25	128	14	0	11	16	14	0	69	89	34	0	64	17	6	0	487
11:30 AM	22	130	7	0	4	13	14	0	66	90	36	0	57	22	6	0	467
11:45 AM	14	130	5	0	7	11	13	0	67	93	47	0	50	17	8	0	462
Total	80	535	33	0	35	49	55	0	262	360	146	0	224	70	28	0	1877
12:00 PM	19	120	5	0	4	7	7	0	64	97	43	0	54	18	10	0	448
12:15 PM	8	143	12	0	4	13	9	0	68	92	35	0	62	16	4	0	466
12:30 PM	11	155	6	0	12	20	16	0	84	84	43	0	72	12	8	0	523
12:45 PM	9	140	5	0	7	12	12	0	70	99	32	0	50	15	3	0	454
Total	47	558	28	0	27	52	44	0	286	372	153	0	238	61	25	0	1891
Grand Total	127	1093	61	0	62	101	99	0	548	732	299	0	462	131	53	0	3768
Apprch %	9.9	85.3	4.8	0	23.7	38.5	37.8	0	34.7	46.4	18.9	0	71.5	20.3	8.2	0	
Total %	3.4	29	1.6	0	1.6	2.7	2.6	0	14.5	19.4	7.9	0	12.3	3.5	1.4	0	
Cars	127	1060	54	0	56	98	96	0	531	712	294	0	461	130	52	0	3671
% Cars	100	97	88.5	0	90.3	97	97	0	96.9	97.3	98.3	0	99.8	99.2	98.1	0	97.4
Heavy Vehicles	0	33	7	0	6	3	3	0	17	20	5	0	1	1	1	0	97
% Heavy Vehicles	0	3	11.5	0	9.7	3	3	0	3.1	2.7	1.7	0	0.2	0.8	1.9	0	2.6

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	14	130	5	0	149	7	11	13	0	31	67	93	47	0	207	50	17	8	0	75	462
12:00 PM	19	120	5	0	144	4	7	7	0	18	64	97	43	0	204	54	18	10	0	82	448
12:15 PM	8	143	12	0	163	4	13	9	0	26	68	92	35	0	195	62	16	4	0	82	466
12:30 PM	11	155	6	0	172	12	20	16	0	48	84	84	43	0	211	72	12	8	0	92	523
Total Volume	52	548	28	0	628	27	51	45	0	123	283	366	168	0	817	238	63	30	0	331	1899
% App. Total	8.3	87.3	4.5	0		22	41.5	36.6	0		34.6	44.8	20.6	0		71.9	19	9.1	0		
PHF	.684	.884	.583	.000	.913	.563	.638	.703	.000	.641	.842	.943	.894	.000	.968	.826	.875	.750	.000	.899	.908
Cars	52	537	25	0	614	25	49	44	0	118	274	355	167	0	796	237	63	29	0	329	1857
% Cars	100	98.0	89.3	0	97.8	92.6	96.1	97.8	0	95.9	96.8	97.0	99.4	0	97.4	99.6	100	96.7	0	99.4	97.8
Heavy Vehicles	0	11	3	0	14	2	2	1	0	5	9	11	1	0	21	1	0	1	0	2	42
% Heavy Vehicles	0	2.0	10.7	0	2.2	7.4	3.9	2.2	0	4.1	3.2	3.0	0.6	0	2.6	0.4	0	3.3	0	0.6	2.2

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MMM
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	19	141	7	0	11	9	13	0	59	85	26	0	53	14	8	0	445
11:15 AM	25	124	11	0	11	15	13	0	68	89	33	0	64	17	6	0	476
11:30 AM	22	121	6	0	3	13	14	0	62	87	36	0	57	21	6	0	448
11:45 AM	14	126	4	0	6	10	12	0	66	89	47	0	50	17	7	0	448
Total	80	512	28	0	31	47	52	0	255	350	142	0	224	69	27	0	1817
12:00 PM	19	120	5	0	4	7	7	0	62	94	43	0	53	18	10	0	442
12:15 PM	8	138	11	0	4	13	9	0	63	92	35	0	62	16	4	0	455
12:30 PM	11	153	5	0	11	19	16	0	83	80	42	0	72	12	8	0	512
12:45 PM	9	137	5	0	6	12	12	0	68	96	32	0	50	15	3	0	445
Total	47	548	26	0	25	51	44	0	276	362	152	0	237	61	25	0	1854
Grand Total	127	1060	54	0	56	98	96	0	531	712	294	0	461	130	52	0	3671
Apprch %	10.2	85.4	4.4	0	22.4	39.2	38.4	0	34.5	46.3	19.1	0	71.7	20.2	8.1	0	
Total %	3.5	28.9	1.5	0	1.5	2.7	2.6	0	14.5	19.4	8	0	12.6	3.5	1.4	0	

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	14	126	4	0	144	6	10	12	0	28	66	89	47	0	202	50	17	7	0	74	448
12:00 PM	19	120	5	0	144	4	7	7	0	18	62	94	43	0	199	53	18	10	0	81	442
12:15 PM	8	138	11	0	157	4	13	9	0	26	63	92	35	0	190	62	16	4	0	82	455
12:30 PM	11	153	5	0	169	11	19	16	0	46	83	80	42	0	205	72	12	8	0	92	512
Total Volume	52	537	25	0	614	25	49	44	0	118	274	355	167	0	796	237	63	29	0	329	1857
% App. Total	8.5	87.5	4.1	0		21.2	41.5	37.3	0		34.4	44.6	21	0		72	19.1	8.8	0		
PHF	.684	.877	.568	.000	.908	.568	.645	.688	.000	.641	.825	.944	.888	.000	.971	.823	.875	.725	.000	.894	.907

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
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PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Newmarket Square From East				Massachusetts Avenue From South				Shirley Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	6	0	0	2	0	1	0	1	3	3	0	0	0	0	0	16
11:15 AM	0	4	3	0	0	1	1	0	1	0	1	0	0	0	0	0	11
11:30 AM	0	9	1	0	1	0	0	0	4	3	0	0	0	1	0	0	19
11:45 AM	0	4	1	0	1	1	1	0	1	4	0	0	0	0	1	0	14
Total	0	23	5	0	4	2	3	0	7	10	4	0	0	1	1	0	60
12:00 PM	0	0	0	0	0	0	0	0	2	3	0	0	1	0	0	0	6
12:15 PM	0	5	1	0	0	0	0	0	5	0	0	0	0	0	0	0	11
12:30 PM	0	2	1	0	1	1	0	0	1	4	1	0	0	0	0	0	11
12:45 PM	0	3	0	0	1	0	0	0	2	3	0	0	0	0	0	0	9
Total	0	10	2	0	2	1	0	0	10	10	1	0	1	0	0	0	37
Grand Total	0	33	7	0	6	3	3	0	17	20	5	0	1	1	1	0	97
Apprch %	0	82.5	17.5	0	50	25	25	0	40.5	47.6	11.9	0	33.3	33.3	33.3	0	
Total %	0	34	7.2	0	6.2	3.1	3.1	0	17.5	20.6	5.2	0	1	1	1	0	

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	6	0	0	6	2	0	1	0	3	1	3	3	0	7	0	0	0	0	0	16
11:15 AM	0	4	3	0	7	0	1	1	0	2	1	0	1	0	2	0	0	0	0	0	11
11:30 AM	0	9	1	0	10	1	0	0	0	1	4	3	0	0	7	0	1	0	0	1	19
11:45 AM	0	4	1	0	5	1	1	1	0	3	1	4	0	0	5	0	0	1	0	1	14
Total Volume	0	23	5	0	28	4	2	3	0	9	7	10	4	0	21	0	1	1	0	2	60
% App. Total	0	82.1	17.9	0		44.4	22.2	33.3	0		33.3	47.6	19	0		0	50	50	0		
PHF	.000	.639	.417	.000	.700	.500	.500	.750	.000	.750	.438	.625	.333	.000	.750	.000	.250	.250	.000	.500	.789

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 NNN
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
11:00 AM	99	114	0	81	2	0	16	125	0	437
11:15 AM	91	113	0	83	3	0	13	121	0	424
11:30 AM	83	109	0	84	3	0	9	123	0	411
11:45 AM	97	97	0	88	3	0	19	141	1	446
Total	370	433	0	336	11	0	57	510	1	1718
12:00 PM	92	90	0	83	3	0	22	140	0	430
12:15 PM	96	112	0	76	4	0	19	137	0	444
12:30 PM	100	133	0	92	5	0	16	138	0	484
12:45 PM	95	109	0	71	2	0	19	136	0	432
Total	383	444	0	322	14	0	76	551	0	1790
Grand Total	753	877	0	658	25	0	133	1061	1	3508
Apprch %	46.2	53.8	0	96.3	3.7	0	11.1	88.8	0.1	
Total %	21.5	25	0	18.8	0.7	0	3.8	30.2	0	
Cars	728	868	0	648	25	0	126	1035	1	3431
% Cars	96.7	99	0	98.5	100	0	94.7	97.5	100	97.8
Heavy Vehicles	25	9	0	10	0	0	7	26	0	77
% Heavy Vehicles	3.3	1	0	1.5	0	0	5.3	2.5	0	2.2

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	97	97	0	194	88	3	0	91	19	141	1	161	446
12:00 PM	92	90	0	182	83	3	0	86	22	140	0	162	430
12:15 PM	96	112	0	208	76	4	0	80	19	137	0	156	444
12:30 PM	100	133	0	233	92	5	0	97	16	138	0	154	484
Total Volume	385	432	0	817	339	15	0	354	76	556	1	633	1804
% App. Total	47.1	52.9	0		95.8	4.2	0		12	87.8	0.2		
PHF	.963	.812	.000	.877	.921	.750	.000	.912	.864	.986	.250	.977	.932
Cars	376	429	0	805	331	15	0	346	72	545	1	618	1769
% Cars	97.7	99.3	0	98.5	97.6	100	0	97.7	94.7	98.0	100	97.6	98.1
Heavy Vehicles	9	3	0	12	8	0	0	8	4	11	0	15	35
% Heavy Vehicles	2.3	0.7	0	1.5	2.4	0	0	2.3	5.3	2.0	0	2.4	1.9

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
11:00 AM	94	112	0	80	2	0	14	120	0	422
11:15 AM	87	112	0	83	3	0	13	121	0	419
11:30 AM	79	107	0	83	3	0	8	117	0	397
11:45 AM	93	96	0	86	3	0	18	138	1	435
Total	353	427	0	332	11	0	53	496	1	1673
12:00 PM	92	90	0	81	3	0	22	137	0	425
12:15 PM	93	110	0	74	4	0	18	136	0	435
12:30 PM	98	133	0	90	5	0	14	134	0	474
12:45 PM	92	108	0	71	2	0	19	132	0	424
Total	375	441	0	316	14	0	73	539	0	1758
Grand Total	728	868	0	648	25	0	126	1035	1	3431
Apprch %	45.6	54.4	0	96.3	3.7	0	10.8	89.1	0.1	
Total %	21.2	25.3	0	18.9	0.7	0	3.7	30.2	0	

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:45 AM													
11:45 AM	93	96	0	189	86	3	0	89	18	138	1	157	435
12:00 PM	92	90	0	182	81	3	0	84	22	137	0	159	425
12:15 PM	93	110	0	203	74	4	0	78	18	136	0	154	435
12:30 PM	98	133	0	231	90	5	0	95	14	134	0	148	474
Total Volume	376	429	0	805	331	15	0	346	72	545	1	618	1769
% App. Total	46.7	53.3	0		95.7	4.3	0		11.7	88.2	0.2		
PHF	.959	.806	.000	.871	.919	.750	.000	.911	.818	.987	.250	.972	.933

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 NNN
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North			South Bay Center Driveway From East			Massachusetts Avenue From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
11:00 AM	5	2	0	1	0	0	2	5	0	15
11:15 AM	4	1	0	0	0	0	0	0	0	5
11:30 AM	4	2	0	1	0	0	1	6	0	14
11:45 AM	4	1	0	2	0	0	1	3	0	11
Total	17	6	0	4	0	0	4	14	0	45
12:00 PM	0	0	0	2	0	0	0	3	0	5
12:15 PM	3	2	0	2	0	0	1	1	0	9
12:30 PM	2	0	0	2	0	0	2	4	0	10
12:45 PM	3	1	0	0	0	0	0	4	0	8
Total	8	3	0	6	0	0	3	12	0	32
Grand Total	25	9	0	10	0	0	7	26	0	77
Apprch %	73.5	26.5	0	100	0	0	21.2	78.8	0	
Total %	32.5	11.7	0	13	0	0	9.1	33.8	0	

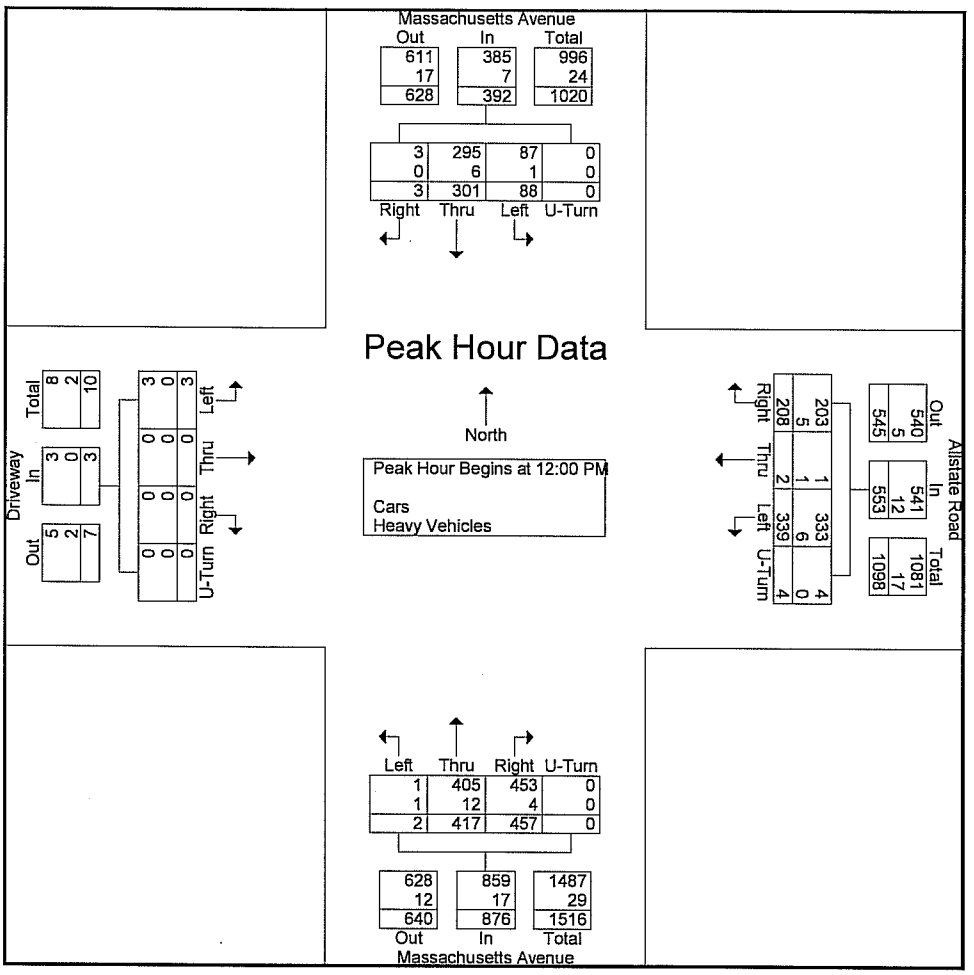
	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	5	2	0	7	1	0	0	1	2	5	0	7	15
11:15 AM	4	1	0	5	0	0	0	0	0	0	0	0	5
11:30 AM	4	2	0	6	1	0	0	1	1	6	0	7	14
11:45 AM	4	1	0	5	2	0	0	2	1	3	0	4	11
Total Volume	17	6	0	23	4	0	0	4	4	14	0	18	45
% App. Total	73.9	26.1	0		100	0	0		22.2	77.8	0		
PHF	.850	.750	.000	.821	.500	.000	.000	.500	.500	.583	.000	.643	.750

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	72	21	0	93	68	0	85	0	153	132	96	0	0	228	0	0	1	0	1	475
12:15 PM	0	79	17	0	96	49	0	92	1	142	102	96	1	0	199	0	0	2	0	2	439
12:30 PM	2	86	22	0	110	57	1	86	1	145	115	108	1	0	224	0	0	0	0	0	479
12:45 PM	1	64	28	0	93	34	1	76	2	113	108	117	0	0	225	0	0	0	0	0	431
Total Volume	3	301	88	0	392	208	2	339	4	553	457	417	2	0	876	0	0	3	0	3	1824
% App. Total	0.8	76.8	22.4	0		37.6	0.4	61.3	0.7		52.2	47.6	0.2	0		0	0	100	0		
PHF	.375	.875	.786	.000	.891	.765	.500	.921	.500	.904	.866	.891	.500	.000	.961	.000	.000	.375	.000	.375	.952
Cars	3	295	87	0	385	203	1	333	4	541	453	405	1	0	859	0	0	3	0	3	1788
% Cars	100	98.0	98.9	0	98.2	97.6	50.0	98.2	100	97.8	99.1	97.1	50.0	0	98.1	0	0	100	0	100	98.0
Heavy Vehicles	0	6	1	0	7	5	1	6	0	12	4	12	1	0	17	0	0	0	0	0	36
% Heavy Vehicles	0	2.0	1.1	0	1.8	2.4	50.0	1.8	0	2.2	0.9	2.9	50.0	0	1.9	0	0	0	0	0	2.0



N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	79	15	0	30	0	73	0	92	113	0	0	1	0	1	0	404
11:15 AM	0	77	25	0	41	0	88	0	71	90	3	0	3	0	0	0	398
11:30 AM	2	70	9	0	34	0	83	0	100	105	0	0	0	0	0	0	403
11:45 AM	0	72	30	0	46	0	76	0	91	104	2	0	3	0	2	0	426
Total	2	298	79	0	151	0	320	0	354	412	5	0	7	0	3	0	1631
12:00 PM	0	72	21	0	68	0	85	0	132	96	0	0	0	0	1	0	475
12:15 PM	0	79	17	0	49	0	92	1	102	96	1	0	0	0	2	0	439
12:30 PM	2	86	22	0	57	1	86	1	115	108	1	0	0	0	0	0	479
12:45 PM	1	64	28	0	34	1	76	2	108	117	0	0	0	0	0	0	431
Total	3	301	88	0	208	2	339	4	457	417	2	0	0	0	3	0	1824
Grand Total	5	599	167	0	359	2	659	4	811	829	7	0	7	0	6	0	3455
Apprch %	0.6	77.7	21.7	0	35.1	0.2	64.4	0.4	49.2	50.3	0.4	0	53.8	0	46.2	0	
Total %	0.1	17.3	4.8	0	10.4	0.1	19.1	0.1	23.5	24	0.2	0	0.2	0	0.2	0	
Cars	5	580	163	0	352	1	648	4	804	802	6	0	7	0	6	0	3378
% Cars	100	96.8	97.6	0	98.1	50	98.3	100	99.1	96.7	85.7	0	100	0	100	0	97.8
Heavy Vehicles	0	19	4	0	7	1	11	0	7	27	1	0	0	0	0	0	77
% Heavy Vehicles	0	3.2	2.4	0	1.9	50	1.7	0	0.9	3.3	14.3	0	0	0	0	0	2.2

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	72	21	0	93	68	0	85	0	153	132	96	0	0	228	0	0	1	0	1	475
12:15 PM	0	79	17	0	96	49	0	92	1	142	102	96	1	0	199	0	0	2	0	2	439
12:30 PM	2	86	22	0	110	57	1	86	1	145	115	108	1	0	224	0	0	0	0	0	479
12:45 PM	1	64	28	0	93	34	1	76	2	113	108	117	0	0	225	0	0	0	0	0	431
Total Volume	3	301	88	0	392	208	2	339	4	553	457	417	2	0	876	0	0	3	0	3	1824
% App. Total	0.8	76.8	22.4	0		37.6	0.4	61.3	0.7		52.2	47.6	0.2	0		0	0	100	0		
PHF	.375	.875	.786	.000	.891	.765	.500	.921	.500	.904	.866	.891	.500	.000	.961	.000	.000	.375	.000	.375	.952
Cars	3	295	87	0	385	203	1	333	4	541	453	405	1	0	859	0	0	3	0	3	1788
% Cars	100	98.0	98.9	0	98.2	97.6	50.0	98.2	100	97.8	99.1	97.1	50.0	0	98.1	0	0	100	0	100	98.0
Heavy Vehicles	0	6	1	0	7	5	1	6	0	12	4	12	1	0	17	0	0	0	0	0	36
% Heavy Vehicles	0	2.0	1.1	0	1.8	2.4	50.0	1.8	0	2.2	0.9	2.9	50.0	0	1.9	0	0	0	0	0	2.0

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 BBB
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	75	15	0	28	0	70	0	91	108	0	0	1	0	1	0	389
11:15 AM	0	76	23	0	41	0	88	0	70	90	3	0	3	0	0	0	394
11:30 AM	2	66	8	0	34	0	82	0	100	98	0	0	0	0	0	0	390
11:45 AM	0	68	30	0	46	0	75	0	90	101	2	0	3	0	2	0	417
Total	2	285	76	0	149	0	315	0	351	397	5	0	7	0	3	0	1590
12:00 PM	0	72	21	0	67	0	83	0	131	94	0	0	0	0	1	0	469
12:15 PM	0	76	17	0	48	0	91	1	100	94	1	0	0	0	2	0	430
12:30 PM	2	85	21	0	56	1	85	1	115	103	0	0	0	0	0	0	469
12:45 PM	1	62	28	0	32	0	74	2	107	114	0	0	0	0	0	0	420
Total	3	295	87	0	203	1	333	4	453	405	1	0	0	0	3	0	1788
Grand Total	5	580	163	0	352	1	648	4	804	802	6	0	7	0	6	0	3378
Apprch %	0.7	77.5	21.8	0	35	0.1	64.5	0.4	49.9	49.8	0.4	0	53.8	0	46.2	0	
Total %	0.1	17.2	4.8	0	10.4	0	19.2	0.1	23.8	23.7	0.2	0	0.2	0	0.2	0	

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	72	21	0	93	67	0	83	0	150	131	94	0	0	225	0	0	1	0	1	469
12:15 PM	0	76	17	0	93	48	0	91	1	140	100	94	1	0	195	0	0	2	0	2	430
12:30 PM	2	85	21	0	108	56	1	85	1	143	115	103	0	0	218	0	0	0	0	0	469
12:45 PM	1	62	28	0	91	32	0	74	2	108	107	114	0	0	221	0	0	0	0	0	420
Total Volume	3	295	87	0	385	203	1	333	4	541	453	405	1	0	859	0	0	3	0	3	1788
% App. Total	0.8	76.6	22.6	0		37.5	0.2	61.6	0.7		52.7	47.1	0.1	0		0	0	100	0		
PHF	.375	.868	.777	.000	.891	.757	.250	.915	.500	.902	.865	.888	.250	.000	.954	.000	.000	.375	.000	.375	.953

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
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Site Code : 804
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Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Allstate Road From East				Massachusetts Avenue From South				Driveway From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	4	0	0	2	0	3	0	1	5	0	0	0	0	0	0	15
11:15 AM	0	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0	4
11:30 AM	0	4	1	0	0	0	1	0	0	7	0	0	0	0	0	0	13
11:45 AM	0	4	0	0	0	0	1	0	1	3	0	0	0	0	0	0	9
Total	0	13	3	0	2	0	5	0	3	15	0	0	0	0	0	0	41
12:00 PM	0	0	0	0	1	0	2	0	1	2	0	0	0	0	0	0	6
12:15 PM	0	3	0	0	1	0	1	0	2	2	0	0	0	0	0	0	9
12:30 PM	0	1	1	0	1	0	1	0	0	5	1	0	0	0	0	0	10
12:45 PM	0	2	0	0	2	1	2	0	1	3	0	0	0	0	0	0	11
Total	0	6	1	0	5	1	6	0	4	12	1	0	0	0	0	0	36
Grand Total	0	19	4	0	7	1	11	0	7	27	1	0	0	0	0	0	77
Apprch %	0	82.6	17.4	0	36.8	5.3	57.9	0	20	77.1	2.9	0	0	0	0	0	
Total %	0	24.7	5.2	0	9.1	1.3	14.3	0	9.1	35.1	1.3	0	0	0	0	0	

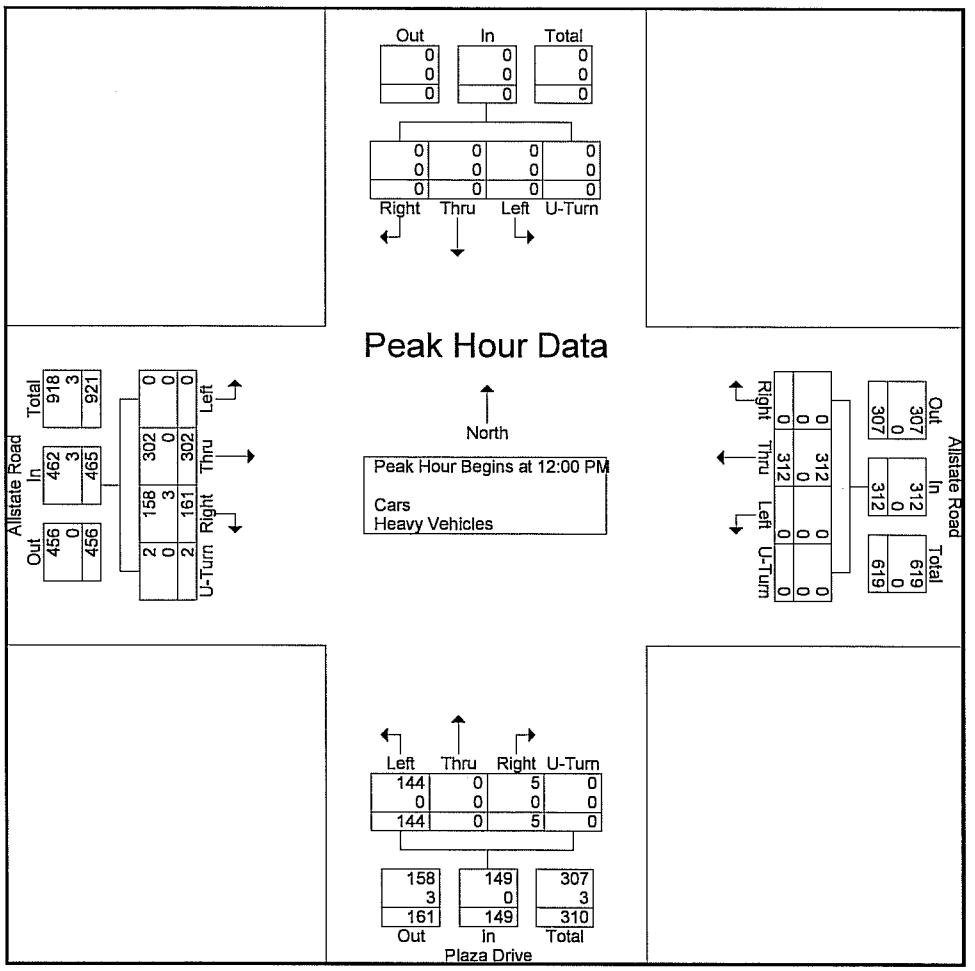
	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	4	0	0	4	2	0	3	0	5	1	5	0	0	6	0	0	0	0	0	15
11:15 AM	0	1	2	0	3	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	4
11:30 AM	0	4	1	0	5	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	13
11:45 AM	0	4	0	0	4	0	0	1	0	1	1	3	0	0	4	0	0	0	0	0	9
Total Volume	0	13	3	0	16	2	0	5	0	7	3	15	0	0	18	0	0	0	0	0	41
% App. Total	0	81.2	18.8	0		28.6	0	71.4	0		16.7	83.3	0	0		0	0	0	0		
PHF	.000	.813	.375	.000	.800	.250	.000	.417	.000	.350	.750	.536	.000	.000	.643	.000	.000	.000	.000	.000	.683

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

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P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	91	0	0	91	1	0	40	0	41	42	68	0	0	110	242
12:15 PM	0	0	0	0	0	0	79	0	0	79	2	0	37	0	39	32	75	0	1	108	226
12:30 PM	0	0	0	0	0	0	69	0	0	69	2	0	40	0	42	43	76	0	0	119	230
12:45 PM	0	0	0	0	0	0	73	0	0	73	0	0	27	0	27	44	83	0	1	128	228
Total Volume	0	0	0	0	0	0	312	0	0	312	5	0	144	0	149	161	302	0	2	465	926
% App. Total	0	0	0	0		0	100	0	0		3.4	0	96.6	0		34.6	64.9	0	0.4		
PHF	.000	.000	.000	.000	.000	.000	.857	.000	.000	.857	.625	.000	.900	.000	.887	.915	.910	.000	.500	.908	.957
Cars	0	0	0	0	0	0	312	0	0	312	5	0	144	0	149	158	302	0	2	462	923
% Cars	0	0	0	0	0	0	100	0	0	100	100	0	100	0	100	98.1	100	0	100	99.4	99.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0.6	0.3



S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 III
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	0	0	0	73	0	0	1	0	28	0	37	69	0	0	208
11:15 AM	0	0	0	0	0	85	1	0	1	0	24	0	36	51	0	0	198
11:30 AM	0	0	0	0	0	62	0	0	0	0	20	0	32	60	0	0	174
11:45 AM	0	0	0	0	0	71	0	0	3	0	27	0	32	64	0	0	197
Total	0	0	0	0	0	291	1	0	5	0	99	0	137	244	0	0	777
12:00 PM	0	0	0	0	0	91	0	0	1	0	40	0	42	68	0	0	242
12:15 PM	0	0	0	0	0	79	0	0	2	0	37	0	32	75	0	1	226
12:30 PM	0	0	0	0	0	69	0	0	2	0	40	0	43	76	0	0	230
12:45 PM	0	0	0	0	0	73	0	0	0	0	27	0	44	83	0	1	228
Total	0	0	0	0	0	312	0	0	5	0	144	0	161	302	0	2	926
Grand Total	0	0	0	0	0	603	1	0	10	0	243	0	298	546	0	2	1703
Apprch %	0	0	0	0	0	99.8	0.2	0	4	0	96	0	35.2	64.5	0	0.2	
Total %	0	0	0	0	0	35.4	0.1	0	0.6	0	14.3	0	17.5	32.1	0	0.1	
Cars	0	0	0	0	0	600	1	0	10	0	240	0	288	543	0	2	1684
% Cars	0	0	0	0	0	99.5	100	0	100	0	98.8	0	96.6	99.5	0	100	98.9
Heavy Vehicles	0	0	0	0	0	3	0	0	0	0	3	0	10	3	0	0	19
% Heavy Vehicles	0	0	0	0	0	0.5	0	0	0	0	1.2	0	3.4	0.5	0	0	1.1

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	91	0	0	91	1	0	40	0	41	42	68	0	0	110	242
12:15 PM	0	0	0	0	0	0	79	0	0	79	2	0	37	0	39	32	75	0	1	108	226
12:30 PM	0	0	0	0	0	0	69	0	0	69	2	0	40	0	42	43	76	0	0	119	230
12:45 PM	0	0	0	0	0	0	73	0	0	73	0	0	27	0	27	44	83	0	1	128	228
Total Volume	0	0	0	0	0	0	312	0	0	312	5	0	144	0	149	161	302	0	2	465	926
% App. Total	0	0	0	0		0	100	0	0		3.4	0	96.6	0		34.6	64.9	0	0.4		
PHF	.000	.000	.000	.000	.000	.000	.857	.000	.000	.857	.625	.000	.900	.000	.887	.915	.910	.000	.500	.908	.957
Cars	0	0	0	0	0	0	312	0	0	312	5	0	144	0	149	158	302	0	2	462	923
% Cars	0	0	0	0	0	0	100	0	0	100	100	0	100	0	100	98.1	100	0	100	99.4	99.7
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.9	0	0	0	0.6	0.3

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 III
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	0	0	0	71	0	0	1	0	26	0	36	68	0	0	202
11:15 AM	0	0	0	0	0	85	1	0	1	0	24	0	33	51	0	0	195
11:30 AM	0	0	0	0	0	61	0	0	0	0	20	0	31	59	0	0	171
11:45 AM	0	0	0	0	0	71	0	0	3	0	26	0	30	63	0	0	193
Total	0	0	0	0	0	288	1	0	5	0	96	0	130	241	0	0	761
12:00 PM	0	0	0	0	0	91	0	0	1	0	40	0	42	68	0	0	242
12:15 PM	0	0	0	0	0	79	0	0	2	0	37	0	31	75	0	1	225
12:30 PM	0	0	0	0	0	69	0	0	2	0	40	0	42	76	0	0	229
12:45 PM	0	0	0	0	0	73	0	0	0	0	27	0	43	83	0	1	227
Total	0	0	0	0	0	312	0	0	5	0	144	0	158	302	0	2	923
Grand Total	0	0	0	0	0	600	1	0	10	0	240	0	288	543	0	2	1684
Apprch %	0	0	0	0	0	99.8	0.2	0	4	0	96	0	34.6	65.2	0	0.2	
Total %	0	0	0	0	0	35.6	0.1	0	0.6	0	14.3	0	17.1	32.2	0	0.1	

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	0	91	0	0	91	1	0	40	0	41	42	68	0	0	110	242
12:15 PM	0	0	0	0	0	0	79	0	0	79	2	0	37	0	39	31	75	0	1	107	225
12:30 PM	0	0	0	0	0	0	69	0	0	69	2	0	40	0	42	42	76	0	0	118	229
12:45 PM	0	0	0	0	0	0	73	0	0	73	0	0	27	0	27	43	83	0	1	127	227
Total Volume	0	0	0	0	0	0	312	0	0	312	5	0	144	0	149	158	302	0	2	462	923
% App. Total	0	0	0	0		0	100	0	0		3.4	0	96.6	0		34.2	65.4	0	0.4		
PHF	.000	.000	.000	.000	.000	.000	.857	.000	.000	.857	.625	.000	.900	.000	.887	.919	.910	.000	.500	.909	.954

S: Plaza Drive
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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 III
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	From North				Allstate Road From East				Plaza Drive From South				Allstate Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	0	0	0	2	0	0	0	0	2	0	1	1	0	0	6
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
11:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	4
Total	0	0	0	0	0	3	0	0	0	0	3	0	7	3	0	0	16
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
Grand Total	0	0	0	0	0	3	0	0	0	0	3	0	10	3	0	0	19
Apprch %	0	0	0	0	0	100	0	0	0	0	100	0	76.9	23.1	0	0	
Total %	0	0	0	0	0	15.8	0	0	0	0	15.8	0	52.6	15.8	0	0	

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	1	1	0	0	2	6
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0	3	4
Total Volume	0	0	0	0	0	0	3	0	0	3	0	0	3	0	3	7	3	0	0	10	16
% App. Total	0	0	0	0		0	100	0	0		0	0	100	0		70	30	0	0		
PHF	.000	.000	.000	.000	.000	.000	.375	.000	.000	.375	.000	.000	.375	.000	.375	.583	.750	.000	.000	.833	.667

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OOO
Site Code : 804
Start Date : 11/22/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
11:00 AM	148	5	15	0	16	1	0	0	1	4	0	0	0	1	169	0	360
11:15 AM	138	3	6	0	23	0	0	0	1	12	0	0	1	3	175	0	362
11:30 AM	157	6	9	2	15	2	0	0	0	11	0	0	2	4	189	0	397
11:45 AM	135	2	5	0	21	2	1	0	2	10	0	0	2	5	220	0	405
Total	578	16	35	2	75	5	1	0	4	37	0	0	5	13	753	0	1524
12:00 PM	144	4	9	0	13	0	1	0	3	11	1	0	2	1	194	0	383
12:15 PM	165	8	4	0	24	0	1	0	2	8	1	0	2	0	176	0	391
12:30 PM	153	6	7	0	18	0	1	0	0	7	0	0	0	3	160	0	355
12:45 PM	147	1	9	0	20	3	3	0	3	12	1	0	1	5	189	0	394
Total	609	19	29	0	75	3	6	0	8	38	3	0	5	9	719	0	1523
Grand Total	1187	35	64	2	150	8	7	0	12	75	3	0	10	22	1472	0	3047
Apprch %	92.2	2.7	5	0.2	90.9	4.8	4.2	0	13.3	83.3	3.3	0	0.7	1.5	97.9	0	
Total %	39	1.1	2.1	0.1	4.9	0.3	0.2	0	0.4	2.5	0.1	0	0.3	0.7	48.3	0	
Cars	1163	34	63	1	148	8	6	0	12	74	3	0	10	21	1448	0	2991
% Cars	98	97.1	98.4	50	98.7	100	85.7	0	100	98.7	100	0	100	95.5	98.4	0	98.2
Heavy Vehicles	24	1	1	1	2	0	1	0	0	1	0	0	0	1	24	0	56
% Heavy Vehicles	2	2.9	1.6	50	1.3	0	14.3	0	0	1.3	0	0	0	4.5	1.6	0	1.8

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	157	6	9	2	174	15	2	0	0	17	0	11	0	0	11	2	4	189	0	195	397
11:45 AM	135	2	5	0	142	21	2	1	0	24	2	10	0	0	12	2	5	220	0	227	405
12:00 PM	144	4	9	0	157	13	0	1	0	14	3	11	1	0	15	2	1	194	0	197	383
12:15 PM	165	8	4	0	177	24	0	1	0	25	2	8	1	0	11	2	0	176	0	178	391
Total Volume	601	20	27	2	650	73	4	3	0	80	7	40	2	0	49	8	10	779	0	797	1576
% App. Total	92.5	3.1	4.2	0.3		91.2	5	3.8	0		14.3	81.6	4.1	0		1	1.3	97.7	0		
PHF	.911	.625	.750	.250	.918	.760	.500	.750	.000	.800	.583	.909	.500	.000	.817	1.00	.500	.885	.000	.878	.973
Cars	591	19	27	1	638	72	4	3	0	79	7	39	2	0	48	8	10	766	0	784	1549
% Cars	98.3	95.0	100	50.0	98.2	98.6	100	100	0	98.8	100	97.5	100	0	98.0	100	100	98.3	0	98.4	98.3
Heavy Vehicles	10	1	0	1	12	1	0	0	0	1	0	1	0	0	1	0	0	13	0	13	27
% Heavy Vehicles	1.7	5.0	0	50.0	1.8	1.4	0	0	0	1.3	0	2.5	0	0	2.0	0	0	1.7	0	1.6	1.7

N/S: Massachusetts Avenue
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File Name : 144163 OOO
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Start Date : 11/22/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
11:00 AM	145	5	15	0	16	1	0	0	1	4	0	0	0	1	166	0	354
11:15 AM	138	3	6	0	23	0	0	0	1	12	0	0	1	3	170	0	357
11:30 AM	156	5	9	1	15	2	0	0	0	11	0	0	2	4	186	0	391
11:45 AM	133	2	5	0	20	2	1	0	2	10	0	0	2	5	214	0	396
Total	572	15	35	1	74	5	1	0	4	37	0	0	5	13	736	0	1498
12:00 PM	142	4	9	0	13	0	1	0	3	10	1	0	2	1	190	0	376
12:15 PM	160	8	4	0	24	0	1	0	2	8	1	0	2	0	176	0	386
12:30 PM	149	6	6	0	17	0	1	0	0	7	0	0	0	2	158	0	346
12:45 PM	140	1	9	0	20	3	2	0	3	12	1	0	1	5	188	0	385
Total	591	19	28	0	74	3	5	0	8	37	3	0	5	8	712	0	1493
Grand Total	1163	34	63	1	148	8	6	0	12	74	3	0	10	21	1448	0	2991
Apprch %	92.2	2.7	5	0.1	91.4	4.9	3.7	0	13.5	83.1	3.4	0	0.7	1.4	97.9	0	
Total %	38.9	1.1	2.1	0	4.9	0.3	0.2	0	0.4	2.5	0.1	0	0.3	0.7	48.4	0	

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	156	5	9	1	171	15	2	0	0	17	0	11	0	0	11	2	4	186	0	192	391
11:45 AM	133	2	5	0	140	20	2	1	0	23	2	10	0	0	12	2	5	214	0	221	396
12:00 PM	142	4	9	0	155	13	0	1	0	14	3	10	1	0	14	2	1	190	0	193	376
12:15 PM	160	8	4	0	172	24	0	1	0	25	2	8	1	0	11	2	0	176	0	178	386
Total Volume	591	19	27	1	638	72	4	3	0	79	7	39	2	0	48	8	10	766	0	784	1549
% App. Total	92.6	3	4.2	0.2		91.1	5.1	3.8	0		14.6	81.2	4.2	0		1	1.3	97.7	0		
PHF	.923	.594	.750	.250	.927	.750	.500	.750	.000	.790	.583	.886	.500	.000	.857	1.00	.500	.895	.000	.887	.978

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Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Enterprise Street From East				Clapp Street From Southeast				Massachusetts Avenue From South				
Start Time	Thru	Bear Left	Left	U-Turn	Right	Left	Hard Left	U-Turn	Hard Right	Bear Right	Hard Left	U-Turn	Hard Right	Right	Thru	U-Turn	Int. Total
11:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	6
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
11:30 AM	1	1	0	1	0	0	0	0	0	0	0	0	0	0	3	0	6
11:45 AM	2	0	0	0	1	0	0	0	0	0	0	0	0	0	6	0	9
Total	6	1	0	1	1	0	0	0	0	0	0	0	0	0	17	0	26
12:00 PM	2	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	7
12:15 PM	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
12:30 PM	4	0	1	0	1	0	0	0	0	0	0	0	0	1	2	0	9
12:45 PM	7	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	9
Total	18	0	1	0	1	0	1	0	0	1	0	0	0	1	7	0	30
Grand Total	24	1	1	1	2	0	1	0	0	1	0	0	0	1	24	0	56
Apprch %	88.9	3.7	3.7	3.7	66.7	0	33.3	0	0	100	0	0	0	4	96	0	
Total %	42.9	1.8	1.8	1.8	3.6	0	1.8	0	0	1.8	0	0	0	1.8	42.9	0	

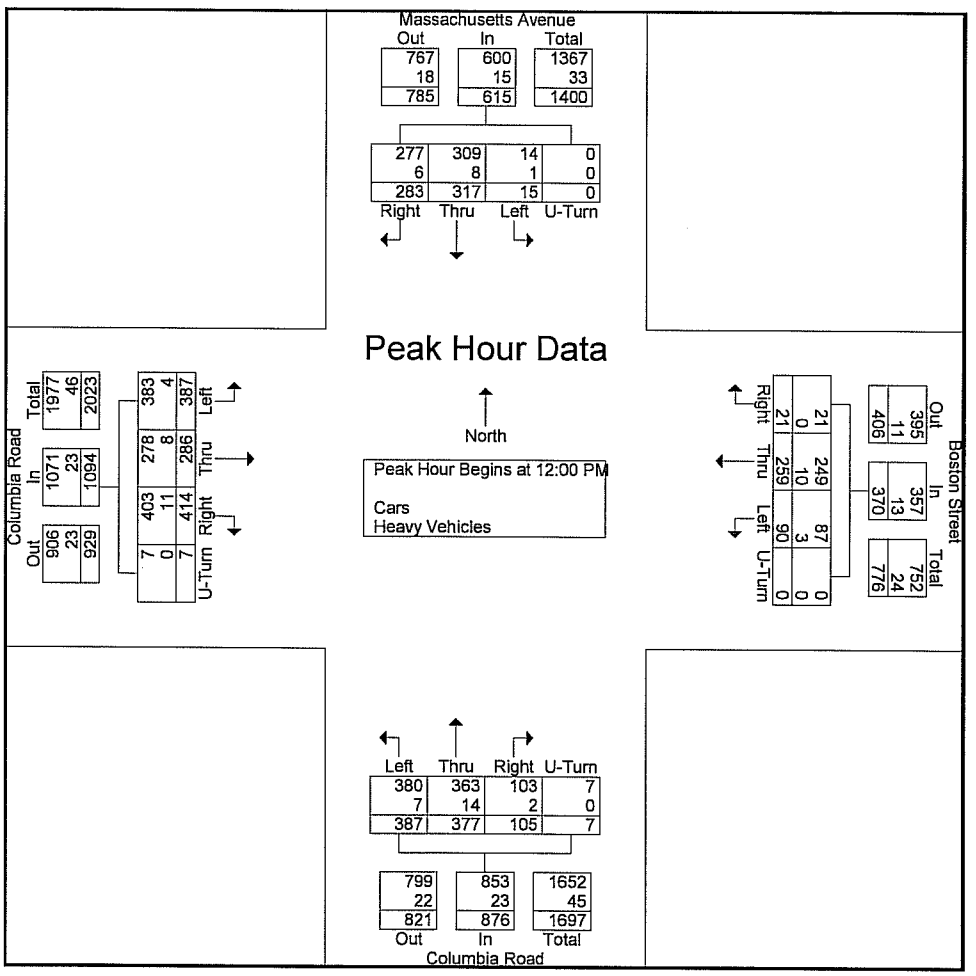
	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	U-Turn	App. Total	Right	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	6	0	6	9
12:00 PM	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	4	0	4	7
12:15 PM	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
12:30 PM	4	0	1	0	5	1	0	0	0	1	0	0	0	0	0	0	1	2	0	3	9
Total Volume	13	0	1	0	14	2	0	0	0	2	0	1	0	0	1	0	1	12	0	13	30
% App. Total	92.9	0	7.1	0		100	0	0	0		0	100	0	0		0	7.7	92.3	0		
PHF	.650	.000	.250	.000	.700	.500	.000	.000	.000	.500	.000	.250	.000	.000	.250	.000	.250	.500	.000	.542	.833

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AAA
Site Code : 804
Start Date : 11/15/2014
Page No : 1

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	72	80	4	0	156	5	64	19	0	88	29	85	108	1	223	98	61	102	0	261	728
12:15 PM	67	91	2	0	160	4	67	26	0	97	24	88	91	0	203	116	81	94	3	294	754
12:30 PM	73	81	4	0	158	6	60	25	0	91	27	111	104	5	247	104	81	94	1	280	776
12:45 PM	71	65	5	0	141	6	68	20	0	94	25	93	84	1	203	96	63	97	3	259	697
Total Volume	283	317	15	0	615	21	259	90	0	370	105	377	387	7	876	414	286	387	7	1094	2955
% App. Total	46	51.5	2.4	0		5.7	70	24.3	0		12	43	44.2	0.8		37.8	26.1	35.4	0.6		
PHF	.969	.871	.750	.000	.961	.875	.952	.865	.000	.954	.905	.849	.896	.350	.887	.892	.883	.949	.583	.930	.952
Cars	277	309	14	0	600	21	249	87	0	357	103	363	380	7	853	403	278	383	7	1071	2881
% Cars	97.9	97.5	93.3	0	97.6	100	96.1	96.7	0	96.5	98.1	96.3	98.2	100	97.4	97.3	97.2	99.0	100	97.9	97.5
Heavy Vehicles	6	8	1	0	15	0	10	3	0	13	2	14	7	0	23	11	8	4	0	23	74
% Heavy Vehicles	2.1	2.5	6.7	0	2.4	0	3.9	3.3	0	3.5	1.9	3.7	1.8	0	2.6	2.7	2.8	1.0	0	2.1	2.5



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File Name : 144163 AAA
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	70	84	8	0	1	46	14	0	27	85	107	3	78	59	99	2	683
11:15 AM	72	79	1	0	0	67	30	0	25	61	109	0	84	52	66	1	647
11:30 AM	69	66	2	0	3	70	22	0	17	87	94	1	76	75	85	4	671
11:45 AM	68	76	2	0	4	49	21	0	22	77	107	2	79	62	105	1	675
Total	279	305	13	0	8	232	87	0	91	310	417	6	317	248	355	8	2676
12:00 PM	72	80	4	0	5	64	19	0	29	85	108	1	98	61	102	0	728
12:15 PM	67	91	2	0	4	67	26	0	24	88	91	0	116	81	94	3	754
12:30 PM	73	81	4	0	6	60	25	0	27	111	104	5	104	81	94	1	776
12:45 PM	71	65	5	0	6	68	20	0	25	93	84	1	96	63	97	3	697
Total	283	317	15	0	21	259	90	0	105	377	387	7	414	286	387	7	2955
Grand Total	562	622	28	0	29	491	177	0	196	687	804	13	731	534	742	15	5631
Apprch %	46.4	51.3	2.3	0	4.2	70.4	25.4	0	11.5	40.4	47.3	0.8	36.2	26.4	36.7	0.7	
Total %	10	11	0.5	0	0.5	8.7	3.1	0	3.5	12.2	14.3	0.2	13	9.5	13.2	0.3	
Cars	549	600	27	0	28	471	169	0	193	666	787	13	703	517	725	15	5463
% Cars	97.7	96.5	96.4	0	96.6	95.9	95.5	0	98.5	96.9	97.9	100	96.2	96.8	97.7	100	97
Heavy Vehicles	13	22	1	0	1	20	8	0	3	21	17	0	28	17	17	0	168
% Heavy Vehicles	2.3	3.5	3.6	0	3.4	4.1	4.5	0	1.5	3.1	2.1	0	3.8	3.2	2.3	0	3

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	72	80	4	0	156	5	64	19	0	88	29	85	108	1	223	98	61	102	0	261	728
12:15 PM	67	91	2	0	160	4	67	26	0	97	24	88	91	0	203	116	81	94	3	294	754
12:30 PM	73	81	4	0	158	6	60	25	0	91	27	111	104	5	247	104	81	94	1	280	776
12:45 PM	71	65	5	0	141	6	68	20	0	94	25	93	84	1	203	96	63	97	3	259	697
Total Volume	283	317	15	0	615	21	259	90	0	370	105	377	387	7	876	414	286	387	7	1094	2955
% App. Total	46	51.5	2.4	0		5.7	70	24.3	0		12	43	44.2	0.8		37.8	26.1	35.4	0.6		
PHF	.969	.871	.750	.000	.961	.875	.952	.865	.000	.954	.905	.849	.896	.350	.887	.892	.883	.949	.583	.930	.952
Cars	277	309	14	0	600	21	249	87	0	357	103	363	380	7	853	403	278	383	7	1071	2881
% Cars	97.9	97.5	93.3	0	97.6	100	96.1	96.7	0	96.5	98.1	96.3	98.2	100	97.4	97.3	97.2	99.0	100	97.9	97.5
Heavy Vehicles	6	8	1	0	15	0	10	3	0	13	2	14	7	0	23	11	8	4	0	23	74
% Heavy Vehicles	2.1	2.5	6.7	0	2.4	0	3.9	3.3	0	3.5	1.9	3.7	1.8	0	2.6	2.7	2.8	1.0	0	2.1	2.5

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AAA
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	67	78	8	0	1	42	13	0	27	82	104	3	71	58	92	2	648
11:15 AM	71	77	1	0	0	64	28	0	25	60	105	0	81	50	65	1	628
11:30 AM	66	63	2	0	2	68	21	0	16	85	93	1	73	72	82	4	648
11:45 AM	68	73	2	0	4	48	20	0	22	76	105	2	75	59	103	1	658
Total	272	291	13	0	7	222	82	0	90	303	407	6	300	239	342	8	2582
12:00 PM	70	79	3	0	5	62	19	0	29	81	105	1	95	60	102	0	711
12:15 PM	66	88	2	0	4	66	25	0	24	87	90	0	113	78	92	3	738
12:30 PM	71	81	4	0	6	55	23	0	26	107	102	5	102	79	92	1	754
12:45 PM	70	61	5	0	6	66	20	0	24	88	83	1	93	61	97	3	678
Total	277	309	14	0	21	249	87	0	103	363	380	7	403	278	383	7	2881
Grand Total	549	600	27	0	28	471	169	0	193	666	787	13	703	517	725	15	5463
Apprch %	46.7	51	2.3	0	4.2	70.5	25.3	0	11.6	40.1	47.4	0.8	35.9	26.4	37	0.8	
Total %	10	11	0.5	0	0.5	8.6	3.1	0	3.5	12.2	14.4	0.2	12.9	9.5	13.3	0.3	

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	70	79	3	0	152	5	62	19	0	86	29	81	105	1	216	95	60	102	0	257	711
12:15 PM	66	88	2	0	156	4	66	25	0	95	24	87	90	0	201	113	78	92	3	286	738
12:30 PM	71	81	4	0	156	6	55	23	0	84	26	107	102	5	240	102	79	92	1	274	754
12:45 PM	70	61	5	0	136	6	66	20	0	92	24	88	83	1	196	93	61	97	3	254	678
Total Volume	277	309	14	0	600	21	249	87	0	357	103	363	380	7	853	403	278	383	7	1071	2881
% App. Total	46.2	51.5	2.3	0		5.9	69.7	24.4	0		12.1	42.6	44.5	0.8		37.6	26	35.8	0.7		
PHF	.975	.878	.700	.000	.962	.875	.943	.870	.000	.939	.888	.848	.905	.350	.889	.892	.880	.939	.583	.936	.955

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AAA
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Massachusetts Avenue From North				Boston Street From East				Columbia Road From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	3	6	0	0	0	4	1	0	0	3	3	0	7	1	7	0	35
11:15 AM	1	2	0	0	0	3	2	0	0	1	4	0	3	2	1	0	19
11:30 AM	3	3	0	0	1	2	1	0	1	2	1	0	3	3	3	0	23
11:45 AM	0	3	0	0	0	1	1	0	0	1	2	0	4	3	2	0	17
Total	7	14	0	0	1	10	5	0	1	7	10	0	17	9	13	0	94
12:00 PM	2	1	1	0	0	2	0	0	0	4	3	0	3	1	0	0	17
12:15 PM	1	3	0	0	0	1	1	0	0	1	1	0	3	3	2	0	16
12:30 PM	2	0	0	0	0	5	2	0	1	4	2	0	2	2	2	0	22
12:45 PM	1	4	0	0	0	2	0	0	1	5	1	0	3	2	0	0	19
Total	6	8	1	0	0	10	3	0	2	14	7	0	11	8	4	0	74
Grand Total	13	22	1	0	1	20	8	0	3	21	17	0	28	17	17	0	168
Apprch %	36.1	61.1	2.8	0	3.4	69	27.6	0	7.3	51.2	41.5	0	45.2	27.4	27.4	0	
Total %	7.7	13.1	0.6	0	0.6	11.9	4.8	0	1.8	12.5	10.1	0	16.7	10.1	10.1	0	

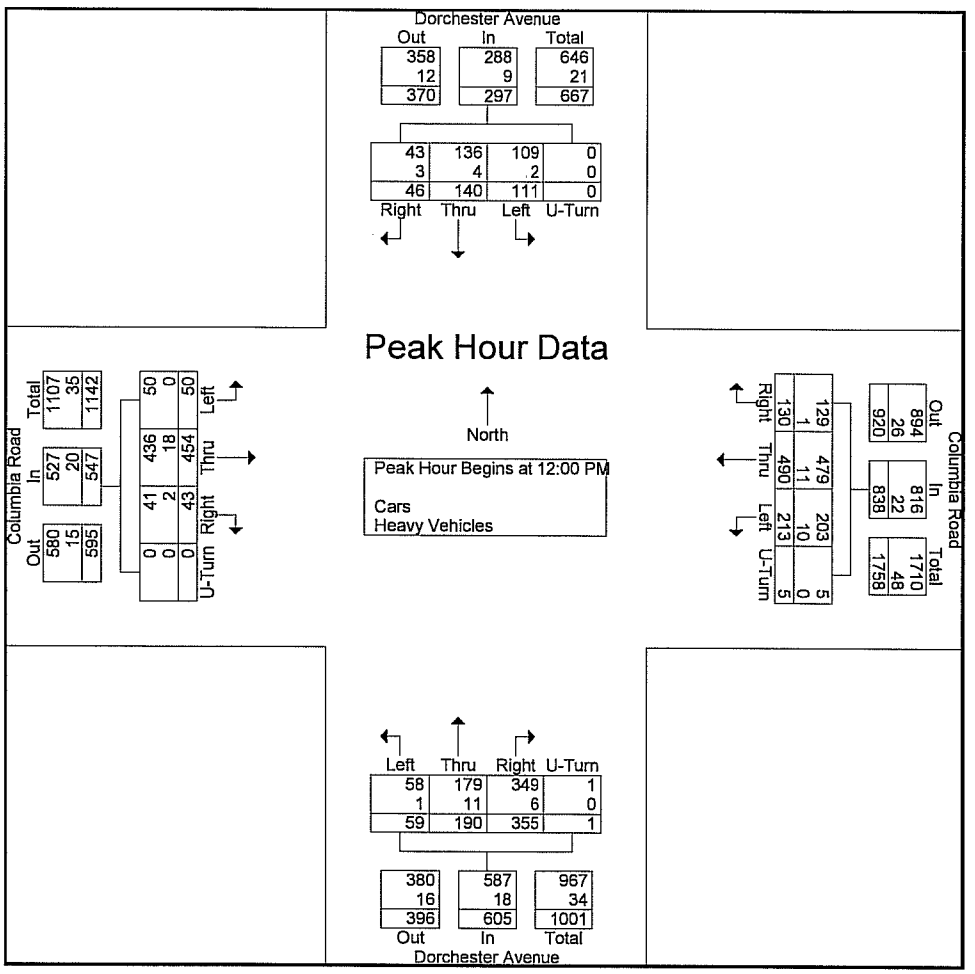
	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	3	6	0	0	9	0	4	1	0	5	0	3	3	0	6	7	1	7	0	15	35
11:15 AM	1	2	0	0	3	0	3	2	0	5	0	1	4	0	5	3	2	1	0	6	19
11:30 AM	3	3	0	0	6	1	2	1	0	4	1	2	1	0	4	3	3	3	0	9	23
11:45 AM	0	3	0	0	3	0	1	1	0	2	0	1	2	0	3	4	3	2	0	9	17
Total Volume	7	14	0	0	21	1	10	5	0	16	1	7	10	0	18	17	9	13	0	39	94
% App. Total	33.3	66.7	0	0		6.2	62.5	31.2	0		5.6	38.9	55.6	0		43.6	23.1	33.3	0		
PHF	.583	.583	.000	.000	.583	.250	.625	.625	.000	.800	.250	.583	.625	.000	.750	.607	.750	.464	.000	.650	.671

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

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INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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File Name : 144163 HHH
Site Code : 804
Start Date : 11/15/2014
Page No : 1

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	14	31	21	0	66	25	109	49	1	184	81	42	12	0	135	11	109	10	0	130	515
12:15 PM	14	35	34	0	83	23	112	58	1	194	95	50	20	0	165	7	99	12	0	118	560
12:30 PM	6	35	31	0	72	45	125	56	1	227	86	40	17	1	144	16	131	16	0	163	606
12:45 PM	12	39	25	0	76	37	144	50	2	233	93	58	10	0	161	9	115	12	0	136	606
Total Volume	46	140	111	0	297	130	490	213	5	838	355	190	59	1	605	43	454	50	0	547	2287
% App. Total	15.5	47.1	37.4	0		15.5	58.5	25.4	0.6		58.7	31.4	9.8	0.2		7.9	83	9.1	0		
PHF	.821	.897	.816	.000	.895	.722	.851	.918	.625	.899	.934	.819	.738	.250	.917	.672	.866	.781	.000	.839	.943
Cars	43	136	109	0	288	129	479	203	5	816	349	179	58	1	587	41	436	50	0	527	2218
% Cars	93.5	97.1	98.2	0	97.0	99.2	97.8	95.3	100	97.4	98.3	94.2	98.3	100	97.0	95.3	96.0	100	0	96.3	97.0
Heavy Vehicles	3	4	2	0	9	1	11	10	0	22	6	11	1	0	18	2	18	0	0	20	69
% Heavy Vehicles	6.5	2.9	1.8	0	3.0	0.8	2.2	4.7	0	2.6	1.7	5.8	1.7	0	3.0	4.7	4.0	0	0	3.7	3.0



N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
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Groups Printed- Cars - Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	10	31	31	0	35	102	65	2	96	45	13	0	10	93	12	0	545
11:15 AM	13	34	41	0	33	108	57	3	88	57	8	0	8	98	5	0	553
11:30 AM	15	30	29	0	32	118	64	0	100	40	9	0	18	106	5	0	566
11:45 AM	19	46	27	0	34	114	54	3	81	53	15	0	9	100	6	0	561
Total	57	141	128	0	134	442	240	8	365	195	45	0	45	397	28	0	2225
12:00 PM	14	31	21	0	25	109	49	1	81	42	12	0	11	109	10	0	515
12:15 PM	14	35	34	0	23	112	58	1	95	50	20	0	7	99	12	0	560
12:30 PM	6	35	31	0	45	125	56	1	86	40	17	1	16	131	16	0	606
12:45 PM	12	39	25	0	37	144	50	2	93	58	10	0	9	115	12	0	606
Total	46	140	111	0	130	490	213	5	355	190	59	1	43	454	50	0	2287
Grand Total	103	281	239	0	264	932	453	13	720	385	104	1	88	851	78	0	4512
Apprch %	16.5	45.1	38.4	0	15.9	56.1	27.3	0.8	59.5	31.8	8.6	0.1	8.7	83.7	7.7	0	
Total %	2.3	6.2	5.3	0	5.9	20.7	10	0.3	16	8.5	2.3	0	2	18.9	1.7	0	
Cars	97	265	232	0	261	912	428	13	709	369	102	1	82	814	76	0	4361
% Cars	94.2	94.3	97.1	0	98.9	97.9	94.5	100	98.5	95.8	98.1	100	93.2	95.7	97.4	0	96.7
Heavy Vehicles	6	16	7	0	3	20	25	0	11	16	2	0	6	37	2	0	151
% Heavy Vehicles	5.8	5.7	2.9	0	1.1	2.1	5.5	0	1.5	4.2	1.9	0	6.8	4.3	2.6	0	3.3

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	14	31	21	0	66	25	109	49	1	184	81	42	12	0	135	11	109	10	0	130	515
12:15 PM	14	35	34	0	83	23	112	58	1	194	95	50	20	0	165	7	99	12	0	118	560
12:30 PM	6	35	31	0	72	45	125	56	1	227	86	40	17	1	144	16	131	16	0	163	606
12:45 PM	12	39	25	0	76	37	144	50	2	233	93	58	10	0	161	9	115	12	0	136	606
Total Volume	46	140	111	0	297	130	490	213	5	838	355	190	59	1	605	43	454	50	0	547	2287
% App. Total	15.5	47.1	37.4	0		15.5	58.5	25.4	0.6		58.7	31.4	9.8	0.2		7.9	83	9.1	0		
PHF	.821	.897	.816	.000	.895	.722	.851	.918	.625	.899	.934	.819	.738	.250	.917	.672	.866	.781	.000	.839	.943
Cars	43	136	109	0	288	129	479	203	5	816	349	179	58	1	587	41	436	50	0	527	2218
% Cars	93.5	97.1	98.2	0	97.0	99.2	97.8	95.3	100	97.4	98.3	94.2	98.3	100	97.0	95.3	96.0	100	0	96.3	97.0
Heavy Vehicles	3	4	2	0	9	1	11	10	0	22	6	11	1	0	18	2	18	0	0	20	69
% Heavy Vehicles	6.5	2.9	1.8	0	3.0	0.8	2.2	4.7	0	2.6	1.7	5.8	1.7	0	3.0	4.7	4.0	0	0	3.7	3.0

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HHH
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	10	30	29	0	33	98	63	2	94	45	13	0	10	88	11	0	526
11:15 AM	11	32	41	0	33	106	52	3	88	54	7	0	6	93	5	0	531
11:30 AM	14	26	27	0	32	117	64	0	99	39	9	0	17	102	5	0	551
11:45 AM	19	41	26	0	34	112	46	3	79	52	15	0	8	95	5	0	535
Total	54	129	123	0	132	433	225	8	360	190	44	0	41	378	26	0	2143
12:00 PM	13	28	20	0	25	107	47	1	79	38	12	0	11	107	10	0	498
12:15 PM	13	35	34	0	22	111	55	1	95	48	20	0	6	95	12	0	547
12:30 PM	5	35	31	0	45	122	53	1	82	39	16	1	15	127	16	0	588
12:45 PM	12	38	24	0	37	139	48	2	93	54	10	0	9	107	12	0	585
Total	43	136	109	0	129	479	203	5	349	179	58	1	41	436	50	0	2218
Grand Total	97	265	232	0	261	912	428	13	709	369	102	1	82	814	76	0	4361
Apprch %	16.3	44.6	39.1	0	16.2	56.5	26.5	0.8	60	31.2	8.6	0.1	8.4	83.7	7.8	0	
Total %	2.2	6.1	5.3	0	6	20.9	9.8	0.3	16.3	8.5	2.3	0	1.9	18.7	1.7	0	

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	13	28	20	0	61	25	107	47	1	180	79	38	12	0	129	11	107	10	0	128	498
12:15 PM	13	35	34	0	82	22	111	55	1	189	95	48	20	0	163	6	95	12	0	113	547
12:30 PM	5	35	31	0	71	45	122	53	1	221	82	39	16	1	138	15	127	16	0	158	588
12:45 PM	12	38	24	0	74	37	139	48	2	226	93	54	10	0	157	9	107	12	0	128	585
Total Volume	43	136	109	0	288	129	479	203	5	816	349	179	58	1	587	41	436	50	0	527	2218
% App. Total	14.9	47.2	37.8	0		15.8	58.7	24.9	0.6		59.5	30.5	9.9	0.2		7.8	82.7	9.5	0		
PHF	.827	.895	.801	.000	.878	.717	.862	.923	.625	.903	.918	.829	.725	.250	.900	.683	.858	.781	.000	.834	.943

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HHH
Site Code : 804
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Page No : 1

Groups Printed- Heavy Vehicles

	Dorchester Avenue From North				Columbia Road From East				Dorchester Avenue From South				Columbia Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	1	2	0	2	4	2	0	2	0	0	0	0	5	1	0	19
11:15 AM	2	2	0	0	0	2	5	0	0	3	1	0	2	5	0	0	22
11:30 AM	1	4	2	0	0	1	0	0	1	1	0	0	1	4	0	0	15
11:45 AM	0	5	1	0	0	2	8	0	2	1	0	0	1	5	1	0	26
Total	3	12	5	0	2	9	15	0	5	5	1	0	4	19	2	0	82
12:00 PM	1	3	1	0	0	2	2	0	2	4	0	0	0	2	0	0	17
12:15 PM	1	0	0	0	1	1	3	0	0	2	0	0	1	4	0	0	13
12:30 PM	1	0	0	0	0	3	3	0	4	1	1	0	1	4	0	0	18
12:45 PM	0	1	1	0	0	5	2	0	0	4	0	0	0	8	0	0	21
Total	3	4	2	0	1	11	10	0	6	11	1	0	2	18	0	0	69
Grand Total	6	16	7	0	3	20	25	0	11	16	2	0	6	37	2	0	151
Apprch %	20.7	55.2	24.1	0	6.2	41.7	52.1	0	37.9	55.2	6.9	0	13.3	82.2	4.4	0	
Total %	4	10.6	4.6	0	2	13.2	16.6	0	7.3	10.6	1.3	0	4	24.5	1.3	0	

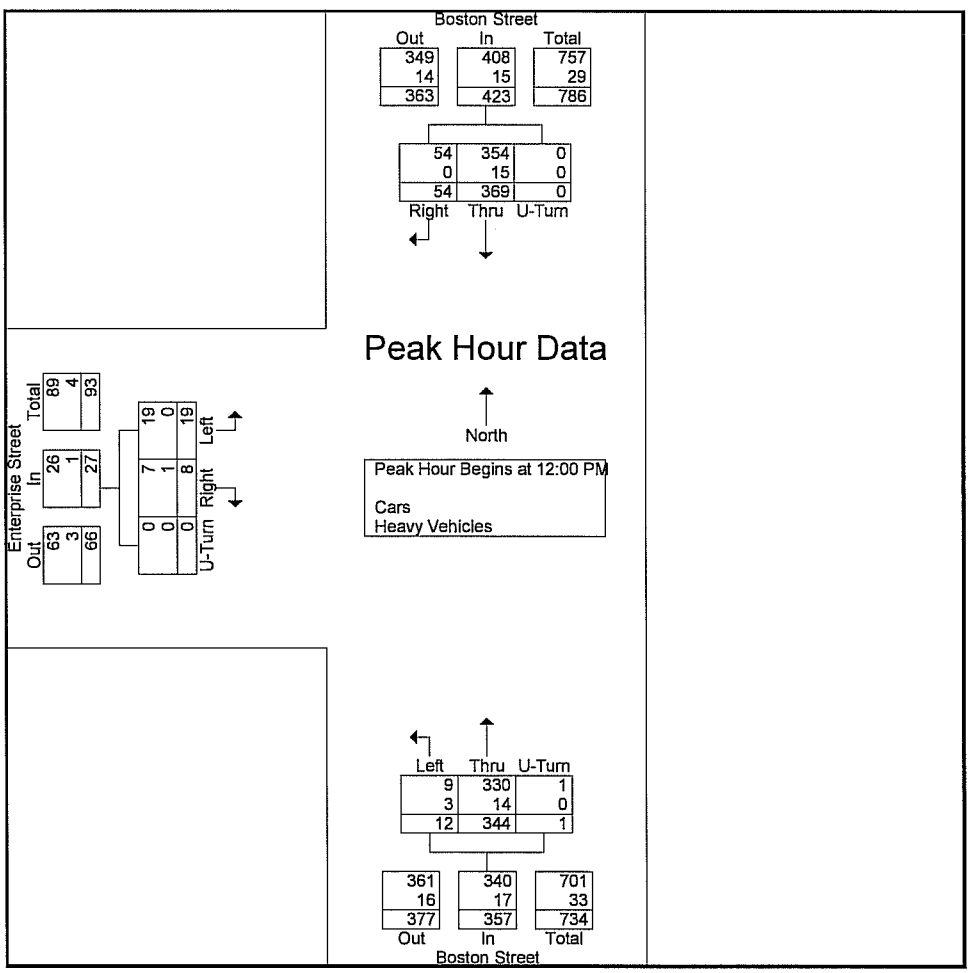
	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	1	2	0	3	2	4	2	0	8	2	0	0	0	2	0	5	1	0	6	19
11:15 AM	2	2	0	0	4	0	2	5	0	7	0	3	1	0	4	2	5	0	0	7	22
11:30 AM	1	4	2	0	7	0	1	0	0	1	1	1	0	0	2	1	4	0	0	5	15
11:45 AM	0	5	1	0	6	0	2	8	0	10	2	1	0	0	3	1	5	1	0	7	26
Total Volume	3	12	5	0	20	2	9	15	0	26	5	5	1	0	11	4	19	2	0	25	82
% App. Total	15	60	25	0		7.7	34.6	57.7	0		45.5	45.5	9.1	0		16	76	8	0		
PHF	.375	.600	.625	.000	.714	.250	.563	.469	.000	.650	.625	.417	.250	.000	.688	.500	.950	.500	.000	.893	.788

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	8	88	0	96	94	1	0	95	1	4	0	5	196
12:15 PM	18	98	0	116	77	2	0	79	0	4	0	4	199
12:30 PM	15	108	0	123	83	2	0	85	4	5	0	9	217
12:45 PM	13	75	0	88	90	7	1	98	3	6	0	9	195
Total Volume	54	369	0	423	344	12	1	357	8	19	0	27	807
% App. Total	12.8	87.2	0		96.4	3.4	0.3		29.6	70.4	0		
PHF	.750	.854	.000	.860	.915	.429	.250	.911	.500	.792	.000	.750	.930
Cars	54	354	0	408	330	9	1	340	7	19	0	26	774
% Cars	100	95.9	0	96.5	95.9	75.0	100	95.2	87.5	100	0	96.3	95.9
Heavy Vehicles	0	15	0	15	14	3	0	17	1	0	0	1	33
% Heavy Vehicles	0	4.1	0	3.5	4.1	25.0	0	4.8	12.5	0	0	3.7	4.1



N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

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Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PPP
Site Code : 804
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Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
11:00 AM	13	68	0	61	0	0	2	4	0	148
11:15 AM	12	95	0	77	2	0	1	5	0	192
11:30 AM	11	101	0	74	3	0	0	2	0	191
11:45 AM	14	90	0	77	5	0	2	3	0	191
Total	50	354	0	289	10	0	5	14	0	722
12:00 PM	8	88	0	94	1	0	1	4	0	196
12:15 PM	18	98	0	77	2	0	0	4	0	199
12:30 PM	15	108	0	83	2	0	4	5	0	217
12:45 PM	13	75	0	90	7	1	3	6	0	195
Total	54	369	0	344	12	1	8	19	0	807
Grand Total	104	723	0	633	22	1	13	33	0	1529
Apprch %	12.6	87.4	0	96.5	3.4	0.2	28.3	71.7	0	
Total %	6.8	47.3	0	41.4	1.4	0.1	0.9	2.2	0	
Cars	103	695	0	610	19	1	11	32	0	1471
% Cars	99	96.1	0	96.4	86.4	100	84.6	97	0	96.2
Heavy Vehicles	1	28	0	23	3	0	2	1	0	58
% Heavy Vehicles	1	3.9	0	3.6	13.6	0	15.4	3	0	3.8

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	8	88	0	96	94	1	0	95	1	4	0	5	196
12:15 PM	18	98	0	116	77	2	0	79	0	4	0	4	199
12:30 PM	15	108	0	123	83	2	0	85	4	5	0	9	217
12:45 PM	13	75	0	88	90	7	1	98	3	6	0	9	195
Total Volume	54	369	0	423	344	12	1	357	8	19	0	27	807
% App. Total	12.8	87.2	0		96.4	3.4	0.3		29.6	70.4	0		
PHF	.750	.854	.000	.860	.915	.429	.250	.911	.500	.792	.000	.750	.930
Cars	54	354	0	408	330	9	1	340	7	19	0	26	774
% Cars	100	95.9	0	96.5	95.9	75.0	100	95.2	87.5	100	0	96.3	95.9
Heavy Vehicles	0	15	0	15	14	3	0	17	1	0	0	1	33
% Heavy Vehicles	0	4.1	0	3.5	4.1	25.0	0	4.8	12.5	0	0	3.7	4.1

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

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D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Site Code : 804
Start Date : 11/22/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
11:00 AM	13	67	0	59	0	0	1	4	0	144
11:15 AM	12	92	0	73	2	0	1	4	0	184
11:30 AM	11	96	0	73	3	0	0	2	0	185
11:45 AM	13	86	0	75	5	0	2	3	0	184
Total	49	341	0	280	10	0	4	13	0	697
12:00 PM	8	85	0	93	0	0	1	4	0	191
12:15 PM	18	93	0	73	2	0	0	4	0	190
12:30 PM	15	105	0	79	1	0	3	5	0	208
12:45 PM	13	71	0	85	6	1	3	6	0	185
Total	54	354	0	330	9	1	7	19	0	774
Grand Total	103	695	0	610	19	1	11	32	0	1471
Apprch %	12.9	87.1	0	96.8	3	0.2	25.6	74.4	0	
Total %	7	47.2	0	41.5	1.3	0.1	0.7	2.2	0	

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	8	85	0	93	93	0	0	93	1	4	0	5	191
12:15 PM	18	93	0	111	73	2	0	75	0	4	0	4	190
12:30 PM	15	105	0	120	79	1	0	80	3	5	0	8	208
12:45 PM	13	71	0	84	85	6	1	92	3	6	0	9	185
Total Volume	54	354	0	408	330	9	1	340	7	19	0	26	774
% App. Total	13.2	86.8	0		97.1	2.6	0.3		26.9	73.1	0		
PHF	.750	.843	.000	.850	.887	.375	.250	.914	.583	.792	.000	.722	.930

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PPP
Site Code : 804
Start Date : 11/22/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North			Boston Street From South			Enterprise Street From West			
Start Time	Right	Thru	U-Turn	Thru	Left	U-Turn	Right	Left	U-Turn	Int. Total
11:00 AM	0	1	0	2	0	0	1	0	0	4
11:15 AM	0	3	0	4	0	0	0	1	0	8
11:30 AM	0	5	0	1	0	0	0	0	0	6
11:45 AM	1	4	0	2	0	0	0	0	0	7
Total	1	13	0	9	0	0	1	1	0	25
12:00 PM	0	3	0	1	1	0	0	0	0	5
12:15 PM	0	5	0	4	0	0	0	0	0	9
12:30 PM	0	3	0	4	1	0	1	0	0	9
12:45 PM	0	4	0	5	1	0	0	0	0	10
Total	0	15	0	14	3	0	1	0	0	33
Grand Total	1	28	0	23	3	0	2	1	0	58
Apprch %	3.4	96.6	0	88.5	11.5	0	66.7	33.3	0	
Total %	1.7	48.3	0	39.7	5.2	0	3.4	1.7	0	

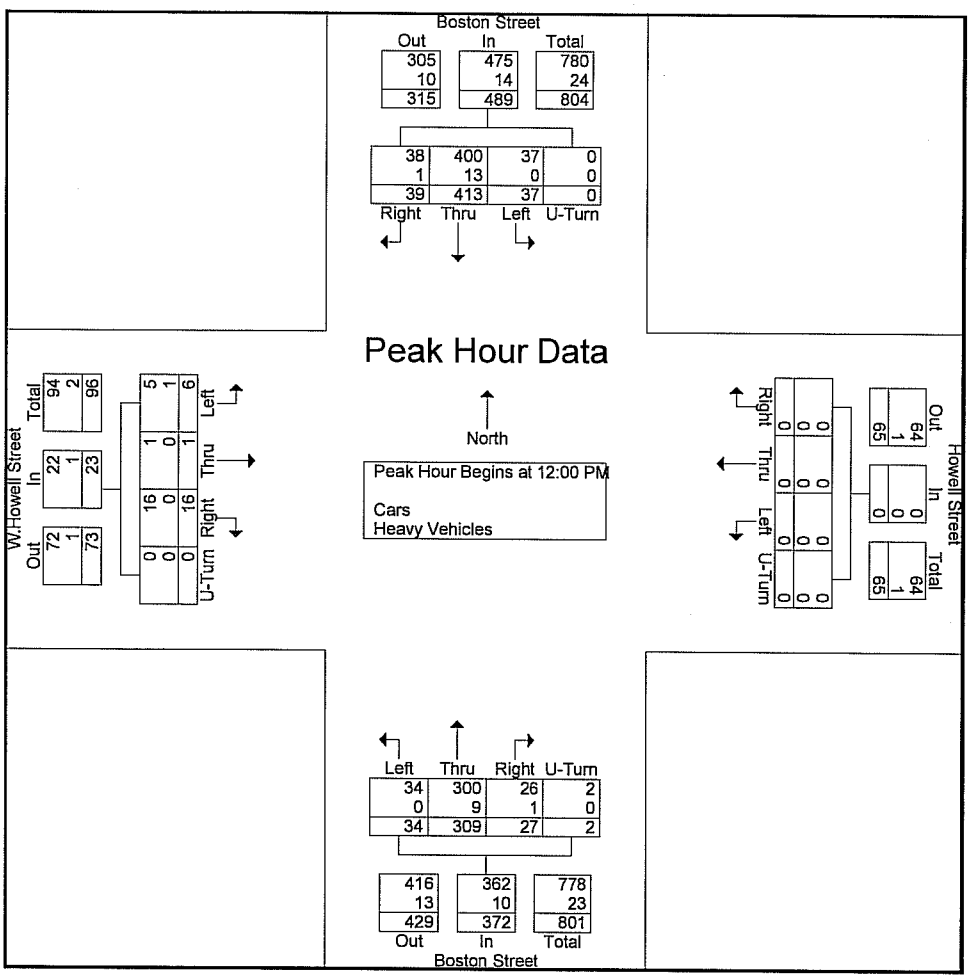
	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	0	3	0	3	1	1	0	2	0	0	0	0	5
12:15 PM	0	5	0	5	4	0	0	4	0	0	0	0	9
12:30 PM	0	3	0	3	4	1	0	5	1	0	0	1	9
12:45 PM	0	4	0	4	5	1	0	6	0	0	0	0	10
Total Volume	0	15	0	15	14	3	0	17	1	0	0	1	33
% App. Total	0	100	0		82.4	17.6	0		100	0	0		
PHF	.000	.750	.000	.750	.700	.750	.000	.708	.250	.000	.000	.250	.825

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

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Page No : 1

	Boston Street From North					Howell Street From East					Boston Street From South					W.Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	13	113	6	0	132	0	0	0	0	0	5	69	7	0	81	5	1	4	0	10	223
12:15 PM	3	103	13	0	119	0	0	0	0	0	12	84	12	0	108	3	0	1	0	4	231
12:30 PM	10	94	10	0	114	0	0	0	0	0	2	87	11	1	101	8	0	1	0	9	224
12:45 PM	13	103	8	0	124	0	0	0	0	0	8	69	4	1	82	0	0	0	0	0	206
Total Volume	39	413	37	0	489	0	0	0	0	0	27	309	34	2	372	16	1	6	0	23	884
% App. Total	8	84.5	7.6	0		0	0	0	0		7.3	83.1	9.1	0.5		69.6	4.3	26.1	0		
PHF	.750	.914	.712	.000	.926	.000	.000	.000	.000	.000	.563	.888	.708	.500	.861	.500	.250	.375	.000	.575	.957
Cars	38	400	37	0	475	0	0	0	0	0	26	300	34	2	362	16	1	5	0	22	859
% Cars	97.4	96.9	100	0	97.1	0	0	0	0	0	96.3	97.1	100	100	97.3	100	100	83.3	0	95.7	97.2
Heavy Vehicles	1	13	0	0	14	0	0	0	0	0	1	9	0	0	10	0	0	1	0	1	25
% Heavy Vehicles	2.6	3.1	0	0	2.9	0	0	0	0	0	3.7	2.9	0	0	2.7	0	0	16.7	0	4.3	2.8



N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LLL
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W.Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	5	69	10	0	0	0	0	0	8	67	3	0	2	0	4	0	168
11:15 AM	9	102	12	0	0	0	0	0	5	72	9	0	2	0	1	0	212
11:30 AM	7	96	9	0	0	0	0	0	9	72	4	0	2	0	2	0	201
11:45 AM	10	79	9	1	0	0	0	0	9	62	8	0	3	0	2	0	183
Total	31	346	40	1	0	0	0	0	31	273	24	0	9	0	9	0	764
12:00 PM	13	113	6	0	0	0	0	0	5	69	7	0	5	1	4	0	223
12:15 PM	3	103	13	0	0	0	0	0	12	84	12	0	3	0	1	0	231
12:30 PM	10	94	10	0	0	0	0	0	2	87	11	1	8	0	1	0	224
12:45 PM	13	103	8	0	0	0	0	0	8	69	4	1	0	0	0	0	206
Total	39	413	37	0	0	0	0	0	27	309	34	2	16	1	6	0	884
Grand Total	70	759	77	1	0	0	0	0	58	582	58	2	25	1	15	0	1648
Apprch %	7.7	83.7	8.5	0.1	0	0	0	0	8.3	83.1	8.3	0.3	61	2.4	36.6	0	
Total %	4.2	46.1	4.7	0.1	0	0	0	0	3.5	35.3	3.5	0.1	1.5	0.1	0.9	0	
Cars	69	727	77	1	0	0	0	0	57	566	58	2	25	1	14	0	1597
% Cars	98.6	95.8	100	100	0	0	0	0	98.3	97.3	100	100	100	100	93.3	0	96.9
Heavy Vehicles	1	32	0	0	0	0	0	0	1	16	0	0	0	0	1	0	51
% Heavy Vehicles	1.4	4.2	0	0	0	0	0	0	1.7	2.7	0	0	0	0	6.7	0	3.1

	Boston Street From North					Howell Street From East					Boston Street From South					W.Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	13	113	6	0	132	0	0	0	0	0	5	69	7	0	81	5	1	4	0	10	223
12:15 PM	3	103	13	0	119	0	0	0	0	0	12	84	12	0	108	3	0	1	0	4	231
12:30 PM	10	94	10	0	114	0	0	0	0	0	2	87	11	1	101	8	0	1	0	9	224
12:45 PM	13	103	8	0	124	0	0	0	0	0	8	69	4	1	82	0	0	0	0	0	206
Total Volume	39	413	37	0	489	0	0	0	0	0	27	309	34	2	372	16	1	6	0	23	884
% App. Total	8	84.5	7.6	0		0	0	0	0		7.3	83.1	9.1	0.5		69.6	4.3	26.1	0		
PHF	.750	.914	.712	.000	.926	.000	.000	.000	.000	.000	.563	.888	.708	.500	.861	.500	.250	.375	.000	.575	.957
Cars	38	400	37	0	475	0	0	0	0	0	26	300	34	2	362	16	1	5	0	22	859
% Cars	97.4	96.9	100	0	97.1	0	0	0	0	0	96.3	97.1	100	100	97.3	100	100	83.3	0	95.7	97.2
Heavy Vehicles	1	13	0	0	14	0	0	0	0	0	1	9	0	0	10	0	0	1	0	1	25
% Heavy Vehicles	2.6	3.1	0	0	2.9	0	0	0	0	0	3.7	2.9	0	0	2.7	0	0	16.7	0	4.3	2.8

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LLL
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Boston Street From North				Howell Street From East				Boston Street From South				W.Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	5	64	10	0	0	0	0	0	8	66	3	0	2	0	4	0	162
11:15 AM	9	96	12	0	0	0	0	0	5	71	9	0	2	0	1	0	205
11:30 AM	7	91	9	0	0	0	0	0	9	70	4	0	2	0	2	0	194
11:45 AM	10	76	9	1	0	0	0	0	9	59	8	0	3	0	2	0	177
Total	31	327	40	1	0	0	0	0	31	266	24	0	9	0	9	0	738
12:00 PM	12	110	6	0	0	0	0	0	4	68	7	0	5	1	3	0	216
12:15 PM	3	99	13	0	0	0	0	0	12	80	12	0	3	0	1	0	223
12:30 PM	10	90	10	0	0	0	0	0	2	85	11	1	8	0	1	0	218
12:45 PM	13	101	8	0	0	0	0	0	8	67	4	1	0	0	0	0	202
Total	38	400	37	0	0	0	0	0	26	300	34	2	16	1	5	0	859
Grand Total	69	727	77	1	0	0	0	0	57	566	58	2	25	1	14	0	1597
Apprch %	7.9	83.2	8.8	0.1	0	0	0	0	8.3	82.9	8.5	0.3	62.5	2.5	35	0	
Total %	4.3	45.5	4.8	0.1	0	0	0	0	3.6	35.4	3.6	0.1	1.6	0.1	0.9	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W.Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	12	110	6	0	128	0	0	0	0	0	4	68	7	0	79	5	1	3	0	9	216
12:15 PM	3	99	13	0	115	0	0	0	0	0	12	80	12	0	104	3	0	1	0	4	223
12:30 PM	10	90	10	0	110	0	0	0	0	0	2	85	11	1	99	8	0	1	0	9	218
12:45 PM	13	101	8	0	122	0	0	0	0	0	8	67	4	1	80	0	0	0	0	0	202
Total Volume	38	400	37	0	475	0	0	0	0	0	26	300	34	2	362	16	1	5	0	22	859
% App. Total	8	84.2	7.8	0		0	0	0	0		7.2	82.9	9.4	0.6		72.7	4.5	22.7	0		
PHF	.731	.909	.712	.000	.928	.000	.000	.000	.000	.000	.542	.882	.708	.500	.870	.500	.250	.417	.000	.611	.963

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LLL
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North				Howell Street From East				Boston Street From South				W.Howell Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6
11:15 AM	0	6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7
11:30 AM	0	5	0	0	0	0	0	0	0	2	0	0	0	0	0	0	7
11:45 AM	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
Total	0	19	0	0	0	0	0	0	0	7	0	0	0	0	0	0	26
12:00 PM	1	3	0	0	0	0	0	0	1	1	0	0	0	0	1	0	7
12:15 PM	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	8
12:30 PM	0	4	0	0	0	0	0	0	0	2	0	0	0	0	0	0	6
12:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4
Total	1	13	0	0	0	0	0	0	1	9	0	0	0	0	1	0	25
Grand Total	1	32	0	0	0	0	0	0	1	16	0	0	0	0	1	0	51
Apprch %	3	97	0	0	0	0	0	0	5.9	94.1	0	0	0	0	100	0	
Total %	2	62.7	0	0	0	0	0	0	2	31.4	0	0	0	0	2	0	

	Boston Street From North					Howell Street From East					Boston Street From South					W.Howell Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
11:45 AM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
12:00 PM	1	3	0	0	4	0	0	0	0	0	1	1	0	0	2	0	0	1	0	1	7
12:15 PM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	8
Total Volume	1	15	0	0	16	0	0	0	0	0	1	10	0	0	11	0	0	1	0	1	28
% App. Total	6.2	93.8	0	0		0	0	0	0		9.1	90.9	0	0		0	0	100	0		
PHF	.250	.750	.000	.000	.800	.000	.000	.000	.000	.000	.250	.625	.000	.000	.688	.000	.000	.250	.000	.250	.875

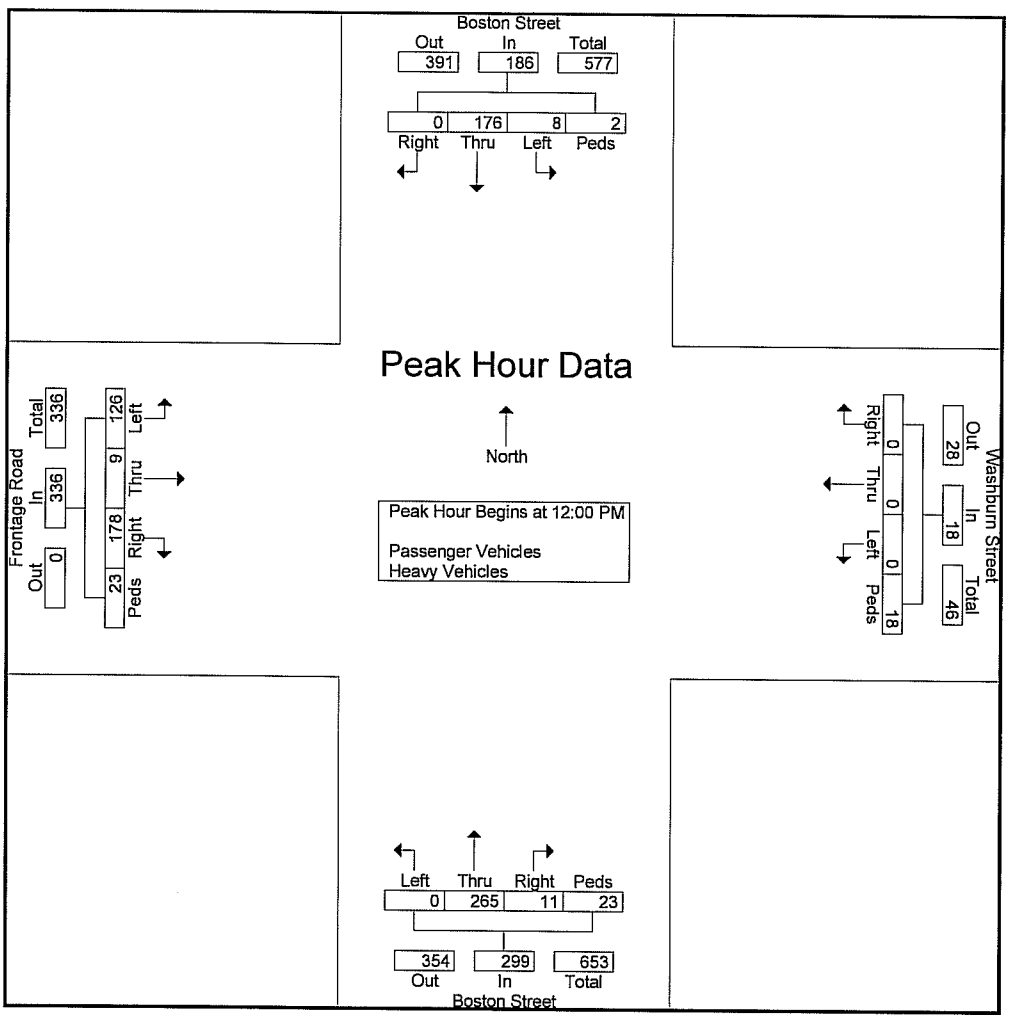
MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn SAT 12-1
Site Code : 04000000
Start Date : 3/21/2015
Page No : 2

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	41	**5**	**2**	48	0	0	0	**5**	**5**	**5**	**73**	0	6	**84**	46	**3**	**36**	**10**	**95**	**232**
12:15 PM	0	**49**	1	0	**50**	0	0	0	4	4	1	61	0	**9**	71	36	2	32	4	74	199
12:30 PM	0	38	0	0	38	0	0	0	5	5	3	71	0	4	78	46	3	25	6	80	201
12:45 PM	0	48	2	0	50	0	0	0	4	4	2	60	0	4	66	**50**	1	33	3	87	207
Total Volume	0	176	8	2	186	0	0	0	18	18	11	265	0	23	299	178	9	126	23	336	839
% App. Total	0	94.6	4.3	1.1		0	0	0	100		3.7	88.6	0	7.7		53	2.7	37.5	6.8		
PHF	.000	.898	.400	.250	.930	.000	.000	.000	.900	.900	.550	.908	.000	.639	.890	.890	.750	.875	.575	.884	.904



MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
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Boston, MA

File Name : 804 Boston-Washburn SAT 12-1
Site Code : 04000000
Start Date : 3/21/2015
Page No : 1

Groups Printed- Passenger Vehicles - Heavy Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 PM	0	41	5	2	48	0	0	0	5	5	5	73	0	6	84	46	3	36	10	95	232
12:15 PM	0	49	1	0	50	0	0	0	4	4	1	61	0	9	71	36	2	32	4	74	199
12:30 PM	0	38	0	0	38	0	0	0	5	5	3	71	0	4	78	46	3	25	6	80	201
12:45 PM	0	48	2	0	50	0	0	0	4	4	2	60	0	4	66	50	1	33	3	87	207
Total	0	176	8	2	186	0	0	0	18	18	11	265	0	23	299	178	9	126	23	336	839
Grand Total	0	176	8	2	186	0	0	0	18	18	11	265	0	23	299	178	9	126	23	336	839
Apprch %	0	94.6	4.3	1.1		0	0	0	100		3.7	88.6	0	7.7		53	2.7	37.5	6.8		
Total %	0	21	1	0.2	22.2	0	0	0	2.1	2.1	1.3	31.6	0	2.7	35.6	21.2	1.1	15	2.7	40	
Passenger Vehicles	0	171	8	2	181	0	0	0	18	18	11	258	0	23	292	174	9	126	23	332	823
% Passenger Vehicles																					
Heavy Vehicles	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	4	0	0	0	4	16
% Heavy Vehicles	0	2.8	0	0	2.7	0	0	0	0	0	0	2.6	0	0	2.3	2.2	0	0	0	1.2	1.9

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
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Boston, MA

File Name : 804 Boston-Washburn SAT 12-1
Site Code : 04000000
Start Date : 3/21/2015
Page No : 1

Groups Printed- Passenger Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 PM	0	39	5	2	46	0	0	0	5	5	5	72	0	6	83	45	3	36	10	94	228
12:15 PM	0	48	1	0	49	0	0	0	4	4	1	58	0	9	68	34	2	32	4	72	193
12:30 PM	0	37	0	0	37	0	0	0	5	5	3	68	0	4	75	46	3	25	6	80	197
12:45 PM	0	47	2	0	49	0	0	0	4	4	2	60	0	4	66	49	1	33	3	86	205
Total	0	171	8	2	181	0	0	0	18	18	11	258	0	23	292	174	9	126	23	332	823
Grand Total	0	171	8	2	181	0	0	0	18	18	11	258	0	23	292	174	9	126	23	332	823
Apprch %	0	94.5	4.4	1.1		0	0	0	100		3.8	88.4	0	7.9		52.4	2.7	38	6.9		
Total %	0	20.8	1	0.2	22	0	0	0	2.2	2.2	1.3	31.3	0	2.8	35.5	21.1	1.1	15.3	2.8	40.3	

MDM Transportation Consultants, Inc.

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Marlborough, MA

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File Name : 804 Boston-Washburn SAT 12-1
Site Code : 04000000
Start Date : 3/21/2015
Page No : 1

Groups Printed- Heavy Vehicles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	4
12:15 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	2	0	0	0	2	6
12:30 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
12:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Total	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	4	0	0	0	4	16
Grand Total	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	4	0	0	0	4	16
Apprch %	0	100	0	0		0	0	0	0		0	100	0	0		100	0	0	0		
Total %	0	31.2	0	0	31.2	0	0	0	0	0	0	43.8	0	0	43.8	25	0	0	0	25	

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EEE
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
11:00 AM	12	10	17	6	4	0	1	60	15	5	2	0	1	3	64	1	0	0	8	10	31	33	1	0	1	9	38	15	34	0	3	3	29	34	21	0	471
11:15 AM	9	15	14	3	0	0	4	42	23	5	1	0	0	3	44	8	1	0	9	8	28	35	0	0	0	14	31	22	36	0	2	3	35	38	19	0	452
11:30 AM	15	8	14	3	1	0	1	61	20	1	2	0	0	3	57	5	2	0	5	14	28	33	2	0	0	6	17	12	48	0	6	5	36	26	19	0	450
11:45 AM	19	4	16	4	2	0	7	55	23	9	3	0	0	1	52	3	3	0	8	18	31	34	2	0	2	16	42	26	34	0	5	10	44	30	15	0	518
Total	55	37	61	16	7	0	13	218	81	20	8	0	1	10	217	17	6	0	30	50	118	135	5	0	3	45	128	75	152	0	16	21	144	128	74	0	1891
12:00 PM	15	20	12	5	2	0	2	52	18	8	0	0	1	3	54	11	0	0	8	11	32	34	1	0	1	6	26	22	33	0	2	5	34	35	18	0	471
12:15 PM	14	7	18	7	2	0	5	60	22	7	2	0	1	3	55	9	2	0	2	7	26	38	2	0	0	6	24	30	32	0	2	6	31	36	15	0	471
12:30 PM	12	9	11	8	3	0	3	47	20	3	0	0	0	0	55	7	2	0	5	21	21	34	2	0	1	14	26	33	28	0	6	7	50	38	19	0	485
12:45 PM	14	15	12	3	4	0	7	45	23	3	4	0	0	3	46	6	1	0	9	22	24	35	1	0	2	11	29	22	40	0	2	5	35	24	15	0	462
Total	55	51	53	23	11	0	17	204	83	21	6	0	2	9	210	33	5	0	24	61	103	141	6	0	4	37	105	107	133	0	12	23	150	133	67	0	1889
Grand Total	110	88	114	39	18	0	30	422	164	41	14	0	3	19	427	50	11	0	54	111	221	276	11	0	7	82	233	182	285	0	28	44	294	261	141	0	3780
Apprch %	29.8	23.8	30.9	10.6	4.9	0	4.5	62.9	24.4	6.1	2.1	0	0.6	3.7	83.7	9.8	2.2	0	8	16.5	32.8	41	1.6	0	0.9	10.4	29.5	23.1	36.1	0	3.6	5.7	38.3	34	18.4	0	
Total %	2.9	2.3	3	1	0.5	0	0.8	11.2	4.3	1.1	0.4	0	0.1	0.5	11.3	1.3	0.3	0	1.4	2.9	5.8	7.3	0.3	0	0.2	2.2	6.2	4.8	7.5	0	0.7	1.2	7.8	6.9	3.7	0	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 11:45 AM																																									
11:45 AM	19	4	16	4	2	0	45	7	55	23	9	3	0	97	0	1	52	3	3	0	59	8	18	31	34	2	0	93	2	16	42	26	34	0	120	5	10	44	30	15	0	104	518
12:00 PM	15	20	12	5	2	0	54	2	52	18	8	0	0	80	1	3	54	11	0	0	69	8	11	32	34	1	0	86	1	6	26	22	33	0	88	2	5	34	35	18	0	94	471
12:15 PM	14	7	18	7	2	0	48	5	60	22	7	2	0	96	1	3	55	9	2	0	70	2	7	26	38	2	0	75	0	6	24	30	32	0	92	2	6	31	36	15	0	90	471
12:30 PM	12	9	11	8	3	0	43	3	47	20	3	0	0	73	0	0	55	7	2	0	64	5	21	21	34	2	0	83	1	14	26	33	28	0	102	6	7	50	38	19	0	120	485
Total Volume	60	40	57	24	9	0	190	17	214	83	27	5	0	346	2	7	216	30	7	0	262	23	57	110	140	7	0	337	4	42	118	111	127	0	402	15	28	159	139	67	0	408	1945
% App. Total	31.6	21.1	30	12.6	4.7	0		4.9	61.8	24	7.8	1.4	0		0.8	2.7	82.4	11.5	2.7	0		6.8	16.9	32.6	41.5	2.1	0		1	10.4	29.4	27.6	31.6	0		3.7	6.9	39	34.1	16.4	0		
PHF	.789	.500	.792	.750	.750	.000	.880	.607	.892	.902	.750	.417	.000	.892	.500	.583	.982	.682	.583	.000	.936	.719	.679	.853	.921	.875	.000	.906	.500	.656	.702	.841	.734	.000	.838	.625	.700	.789	.911	.882	.000	.850	.939

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EEE
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
11:00 AM	15	12	20	18	4	0	2	63	15	6	2	0	1	3	68	1	0	0	8	10	32	33	1	0	1	9	39	15	35	0	3	3	30	34	21	0	504
11:15 AM	12	16	16	16	0	0	6	44	24	5	1	0	0	3	55	8	1	0	9	9	29	36	0	0	0	14	31	22	36	0	2	3	35	39	20	0	492
11:30 AM	16	9	16	19	3	0	2	61	20	2	2	0	0	3	70	5	2	0	5	15	28	34	2	0	0	6	19	12	50	0	6	5	36	29	19	0	496
11:45 AM	21	6	17	16	3	0	7	56	23	10	4	0	0	1	63	3	4	0	9	19	31	38	2	0	2	16	43	27	35	0	5	10	44	32	16	0	563
Total	64	43	69	69	10	0	17	224	82	23	9	0	1	10	256	17	7	0	31	53	120	141	5	0	3	45	132	76	156	0	16	21	145	134	76	0	2055
12:00 PM	17	21	13	16	2	0	2	55	18	8	0	0	1	3	67	11	0	0	8	12	34	35	1	0	1	6	26	22	36	0	2	5	35	35	18	0	510
12:15 PM	17	8	18	20	2	0	5	62	23	7	2	0	1	4	69	9	2	0	3	7	28	40	2	0	0	6	26	30	35	0	3	6	31	36	15	0	517
12:30 PM	15	9	11	22	5	0	4	49	21	3	0	0	0	1	66	7	2	0	5	21	21	35	2	0	1	14	27	35	30	0	6	8	50	38	19	0	527
12:45 PM	17	16	14	12	5	0	7	46	23	3	4	0	0	3	62	6	1	0	9	22	25	36	1	0	2	11	29	22	41	0	2	5	35	24	16	0	499
Total	66	54	56	70	14	0	18	212	85	21	6	0	2	11	264	33	5	0	25	62	108	146	6	0	4	37	108	109	142	0	13	24	151	133	68	0	2053
Grand Total	130	97	125	139	24	0	35	436	167	44	15	0	3	21	520	50	12	0	56	115	228	287	11	0	7	82	240	185	298	0	29	45	296	267	144	0	4108
Apprch %	25.2	18.8	24.3	27	4.7	0	5	62.6	24	6.3	2.2	0	0.5	3.5	85.8	8.3	2	0	8	16.5	32.7	41.2	1.6	0	0.9	10.1	29.6	22.8	36.7	0	3.7	5.8	37.9	34.2	18.4	0	
Total %	3.2	2.4	3	3.4	0.6	0	0.9	10.6	4.1	1.1	0.4	0	0.1	0.5	12.7	1.2	0.3	0	1.4	2.8	5.6	7	0.3	0	0.2	2	5.8	4.5	7.3	0	0.7	1.1	7.2	6.5	3.5	0	
Cars	110	88	114	39	18	0	30	422	164	41	14	0	3	19	427	50	11	0	54	111	221	276	11	0	7	82	233	182	285	0	28	44	294	261	141	0	3780
% Cars	84.6	90.7	91.2	28.1	75	0	85.7	96.8	98.2	93.2	93.3	0	100	90.5	82.1	100	91.7	0	96.4	98.5	96.9	96.2	100	0	100	100	97.1	98.4	95.6	0	96.6	97.8	99.3	97.8	97.9	0	92
Heavy Vehicles	20	9	11	100	6	0	5	14	3	3	1	0	0	2	93	0	1	0	2	4	7	11	0	0	0	0	7	3	13	0	1	1	2	6	3	0	328
% Heavy Vehicles	15.4	9.3	8.8	71.9	25	0	14.3	3.2	1.8	6.8	6.7	0	0	9.5	17.9	0	8.3	0	3.6	3.5	3.1	3.8	0	0	0	0	2.9	1.6	4.4	0	3.4	2.2	0.7	2.2	2.1	0	8

	Dorchester Avenue From North							Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 11:45 AM																																									
11:45 AM	21	6	17	16	3	0	63	7	56	23	10	4	0	100	0	1	63	3	4	0	71	9	19	31	38	2	0	99	2	16	43	27	35	0	123	5	10	44	32	16	0	107	563
12:00 PM	17	21	13	16	2	0	69	2	55	18	8	0	0	83	1	3	67	11	0	0	82	8	12	34	35	1	0	90	1	6	26	22	36	0	91	2	5	35	35	18	0	95	510
12:15 PM	17	8	18	20	2	0	65	5	62	23	7	2	0	99	1	4	69	9	2	0	85	3	7	28	40	2	0	80	0	6	26	30	35	0	97	3	6	31	36	15	0	91	517
12:30 PM	15	9	11	22	5	0	62	4	49	21	3	0	0	77	0	1	66	7	2	0	76	5	21	21	35	2	0	84	1	14	27	35	30	0	107	6	8	50	38	19	0	121	527
Total Volume	70	44	59	74	12	0	259	18	22 2	85	28	6	0	359	2	9	26 5	30	8	0	314	25	59	11 4	14 8	7	0	353	4	42	12 2	11 4	13 6	0	418	16	29	16 0	14 1	68	0	414	2117
% App Total	27	17	22.8	28.6	4.6	0		5	61.8	23.7	7.8	1.7	0		0.6	2.9	84.4	9.6	2.5	0		7.1	16.7	32.3	41.9	2	0		1	10	29.2	27.4	32.5	0		3.9	7	36.6	34.1	16.4	0		
PHF	.83	.52	.81	.84	.60	.00	.938	.64	.89	.92	.70	.37	.00	.898	.50	.56	.96	.68	.50	.00	.924	.69	.70	.83	.92	.67	.00	.891	.50	.65	.70	.81	.94	.00	.850	.66	.72	.80	.92	.89	.00	.855	.940
Cars	60	40	57	24	9	0	190	17	21 4	83	27	5	0	346	2	7	21 6	30	7	0	262	23	57	11 0	14 0	7	0	337	4	42	11 6	11 1	12 7	0	402	15	28	15 9	13 9	67	0	408	1945
% Cars	85.7	90.9	96.6	32.4	75.0	0	73.4	94.4	96.4	97.6	90.4	83.3	0	96.4	10.0	77.8	81.5	10.0	87.5	0	83.4	92.0	96.6	96.5	94.6	10.0	0	95.5	10.0	10.0	96.7	97.4	93.4	0	96.2	93.8	96.6	99.4	98.6	98.5	0	98.6	91.9
Heavy Vehicles	10	4	2	50	3	0	69	1	8	2	1	1	0	13	0	2	49	0	1	0	52	2	2	4	8	0	0	16	0	0	4	3	9	0	16	1	1	1	2	1	0	6	172
% Heavy Vehicles	14.3	9.1	3.4	67.6	25.0	0	26.6	5.6	3.6	2.4	3.6	16.7	0	3.6	0	22.2	18.5	0	12.5	0	16.6	8.0	3.4	3.5	5.4	0	0	4.5	0	0	3.3	2.6	6.6	0	3.8	6.3	3.4	0.6	1.4	1.5	0	1.4	8.1

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EEE
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	Dorchester Avenue From North						Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South						Boston Street From Southwest						Southampton Street From West						
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Right	Bear Right	Thru	Left	Hard Left	U-Turn	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	Hard Right	Right	Thru	Bear Left	Left	U-Turn	Int. Total
11:00 AM	3	2	3	12	0	0	1	3	0	1	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	33
11:15 AM	3	1	2	13	0	0	2	2	1	0	0	0	0	0	11	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	40
11:30 AM	1	1	2	16	2	0	1	0	0	1	0	0	0	0	13	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	3	0	0	46
11:45 AM	2	2	1	12	1	0	0	1	0	1	1	0	0	0	11	0	1	0	1	1	0	4	0	0	0	0	1	1	1	0	0	0	0	2	1	0	45
Total	9	6	8	53	3	0	4	6	1	3	1	0	0	0	39	0	1	0	1	3	2	6	0	0	0	0	4	1	4	0	0	0	1	6	2	0	164
12:00 PM	2	1	1	11	0	0	0	3	0	0	0	0	0	0	13	0	0	0	0	1	2	1	0	0	0	0	0	0	3	0	0	0	1	0	0	0	39
12:15 PM	3	1	0	13	0	0	0	2	1	0	0	0	0	1	14	0	0	0	1	0	2	2	0	0	0	0	2	0	3	0	1	0	0	0	0	0	46
12:30 PM	3	0	0	14	2	0	1	2	1	0	0	0	0	1	11	0	0	0	0	0	0	1	0	0	0	0	1	2	2	0	0	1	0	0	0	0	42
12:45 PM	3	1	2	9	1	0	0	1	0	0	0	0	0	0	16	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	37
Total	11	3	3	47	3	0	1	8	2	0	0	0	0	2	54	0	0	0	1	1	5	5	0	0	0	0	3	2	9	0	1	1	1	0	1	0	164
Grand Total	20	9	11	100	6	0	5	14	3	3	1	0	0	2	93	0	1	0	2	4	7	11	0	0	0	0	7	3	13	0	1	1	2	6	3	0	328
Apprch %	13.7	6.2	7.5	68.5	4.1	0	19.2	53.8	11.5	11.5	3.8	0	0	2.1	96.9	0	1	0	8.3	16.7	29.2	45.8	0	0	0	0	30.4	13	56.5	0	7.7	7.7	15.4	46.2	23.1	0	
Total %	6.1	2.7	3.4	30.5	1.8	0	1.5	4.3	0.9	0.9	0.3	0	0	0.6	28.4	0	0.3	0	0.6	1.2	2.1	3.4	0	0	0	0	2.1	0.9	4	0	0.3	0.3	0.6	1.8	0.9	0	

	Dorchester Avenue From North							Dorchester Street From Northeast						Preble Street From East						Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Right	Bear Right	Thru	Left	Hard Left	U-Turn	App. Total	Hard Right	Bear Right	Thru	Bear Left	Hard Left	U-Turn	App. Total	Hard Right	Right	Thru	Bear Left	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																																									
Peak Hour for Entire Intersection Begins at 11:30 AM																																									
11:30 AM	1	1	2	16	2	0	22	1	0	0	1	0	0	2	0	0	13	0	0	0	13	0	1	0	1	0	0	2	0	0	2	0	2	0	4	0	0	0	3	0	0	3	46
11:45 AM	2	2	1	12	1	0	18	0	1	0	1	1	0	3	0	0	11	0	1	0	12	1	1	0	4	0	0	6	0	0	1	1	1	0	3	0	0	0	2	1	0	3	45
12:00 PM	2	1	1	11	0	0	15	0	3	0	0	0	0	3	0	0	13	0	0	0	13	0	1	2	1	0	0	4	0	0	0	0	3	0	3	0	0	1	0	0	0	1	39
12:15 PM	3	1	0	13	0	0	17	0	2	1	0	0	0	3	0	1	14	0	0	0	15	1	0	2	2	0	0	5	0	0	2	0	3	0	5	1	0	0	0	0	0	1	46
Total Volume	8	5	4	52	3	0	72	1	6	1	2	1	0	11	0	1	51	0	1	0	53	2	3	4	8	0	0	17	0	0	5	1	9	0	15	1	0	1	5	1	0	8	176
% App. Total	11.1	6.9	5.6	72.2	4.2	0		9.1	54.5	9.1	18.2	9.1	0		0	1.9	96.2	0	1.9	0		11.8	17.6	23.5	47.1	0	0		0	0	33.3	6.7	60	0		12.5	0	12.5	62.5	12.5	0		
PHF	.66	.62	.50	.81	.37	.00	.818	.25	.50	.25	.50	.25	.00	.917	.00	.25	.81	.00	.25	.00	.883	.50	.75	.50	.50	.00	.00	.708	.00	.00	.62	.25	.75	.00	.750	.25	.00	.25	.41	.25	.00	.667	.957

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FFF
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	5	0	0	0	60	118	0	0	31	5	89	0	0	83	48	0	439
11:15 AM	2	0	0	0	74	139	0	0	18	5	87	0	0	76	45	0	446
11:30 AM	2	0	0	0	71	130	0	0	18	1	68	0	0	77	42	0	409
11:45 AM	2	0	0	0	76	136	0	0	20	6	80	0	0	97	43	0	460
Total	11	0	0	0	281	523	0	0	87	17	324	0	0	333	178	0	1754
12:00 PM	2	0	0	0	79	142	0	0	23	9	48	0	0	81	34	0	418
12:15 PM	1	0	0	0	63	122	0	0	17	2	79	0	0	82	46	0	412
12:30 PM	5	0	0	0	75	147	0	0	19	5	88	0	0	109	42	0	490
12:45 PM	3	0	0	0	87	125	0	0	19	10	82	0	0	61	54	0	441
Total	11	0	0	0	304	536	0	0	78	26	297	0	0	333	176	0	1761
Grand Total	22	0	0	0	585	1059	0	0	165	43	621	0	0	666	354	0	3515
Apprch %	100	0	0	0	35.6	64.4	0	0	19.9	5.2	74.9	0	0	65.3	34.7	0	
Total %	0.6	0	0	0	16.6	30.1	0	0	4.7	1.2	17.7	0	0	18.9	10.1	0	
Cars	22	0	0	0	567	1035	0	0	159	41	598	0	0	648	322	0	3392
% Cars	100	0	0	0	96.9	97.7	0	0	96.4	95.3	96.3	0	0	97.3	91	0	96.5
Heavy Vehicles	0	0	0	0	18	24	0	0	6	2	23	0	0	18	32	0	123
% Heavy Vehicles	0	0	0	0	3.1	2.3	0	0	3.6	4.7	3.7	0	0	2.7	9	0	3.5

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	2	0	0	0	2	76	136	0	0	212	20	6	80	0	106	0	97	43	0	140	460
12:00 PM	2	0	0	0	2	79	142	0	0	221	23	9	48	0	80	0	81	34	0	115	418
12:15 PM	1	0	0	0	1	63	122	0	0	185	17	2	79	0	98	0	82	46	0	128	412
12:30 PM	5	0	0	0	5	75	147	0	0	222	19	5	88	0	112	0	109	42	0	151	490
Total Volume	10	0	0	0	10	293	547	0	0	840	79	22	295	0	396	0	369	165	0	534	1780
% App. Total	100	0	0	0		34.9	65.1	0	0		19.9	5.6	74.5	0		0	69.1	30.9	0		
PHF	.500	.000	.000	.000	.500	.927	.930	.000	.000	.946	.859	.611	.838	.000	.884	.000	.846	.897	.000	.884	.908
Cars	10	0	0	0	10	283	538	0	0	821	75	21	291	0	387	0	359	150	0	509	1727
% Cars	100	0	0	0	100	96.6	98.4	0	0	97.7	94.9	95.5	98.6	0	97.7	0	97.3	90.9	0	95.3	97.0
Heavy Vehicles	0	0	0	0	0	10	9	0	0	19	4	1	4	0	9	0	10	15	0	25	53
% Heavy Vehicles	0	0	0	0	0	3.4	1.6	0	0	2.3	5.1	4.5	1.4	0	2.3	0	2.7	9.1	0	4.7	3.0

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FFF
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	5	0	0	0	58	114	0	0	31	4	82	0	0	81	42	0	417
11:15 AM	2	0	0	0	73	135	0	0	17	5	85	0	0	75	41	0	433
11:30 AM	2	0	0	0	69	128	0	0	18	1	63	0	0	74	38	0	393
11:45 AM	2	0	0	0	76	134	0	0	18	6	79	0	0	93	38	0	446
Total	11	0	0	0	276	511	0	0	84	16	309	0	0	323	159	0	1689
12:00 PM	2	0	0	0	75	141	0	0	22	9	48	0	0	80	33	0	410
12:15 PM	1	0	0	0	59	119	0	0	16	1	78	0	0	80	43	0	397
12:30 PM	5	0	0	0	73	144	0	0	19	5	86	0	0	106	36	0	474
12:45 PM	3	0	0	0	84	120	0	0	18	10	77	0	0	59	51	0	422
Total	11	0	0	0	291	524	0	0	75	25	289	0	0	325	163	0	1703
Grand Total	22	0	0	0	567	1035	0	0	159	41	598	0	0	648	322	0	3392
Apprch %	100	0	0	0	35.4	64.6	0	0	19.9	5.1	74.9	0	0	66.8	33.2	0	
Total %	0.6	0	0	0	16.7	30.5	0	0	4.7	1.2	17.6	0	0	19.1	9.5	0	

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	2	0	0	0	2	76	134	0	0	210	18	6	79	0	103	0	93	38	0	131	446
12:00 PM	2	0	0	0	2	75	141	0	0	216	22	9	48	0	79	0	80	33	0	113	410
12:15 PM	1	0	0	0	1	59	119	0	0	178	16	1	78	0	95	0	80	43	0	123	397
12:30 PM	5	0	0	0	5	73	144	0	0	217	19	5	86	0	110	0	106	36	0	142	474
Total Volume	10	0	0	0	10	283	538	0	0	821	75	21	291	0	387	0	359	150	0	509	1727
% App. Total	100	0	0	0		34.5	65.5	0	0		19.4	5.4	75.2	0		0	70.5	29.5	0		
PHF	.500	.000	.000	.000	.500	.931	.934	.000	.000	.946	.852	.583	.846	.000	.880	.000	.847	.872	.000	.896	.911

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FFF
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				Southampton Street From East				I-93 NB Offramp From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	0	0	2	4	0	0	0	1	7	0	0	2	6	0	22
11:15 AM	0	0	0	0	1	4	0	0	1	0	2	0	0	1	4	0	13
11:30 AM	0	0	0	0	2	2	0	0	0	0	5	0	0	3	4	0	16
11:45 AM	0	0	0	0	0	2	0	0	2	0	1	0	0	4	5	0	14
Total	0	0	0	0	5	12	0	0	3	1	15	0	0	10	19	0	65
12:00 PM	0	0	0	0	4	1	0	0	1	0	0	0	0	1	1	0	8
12:15 PM	0	0	0	0	4	3	0	0	1	1	1	0	0	2	3	0	15
12:30 PM	0	0	0	0	2	3	0	0	0	0	2	0	0	3	6	0	16
12:45 PM	0	0	0	0	3	5	0	0	1	0	5	0	0	2	3	0	19
Total	0	0	0	0	13	12	0	0	3	1	8	0	0	8	13	0	58
Grand Total	0	0	0	0	18	24	0	0	6	2	23	0	0	18	32	0	123
Apprch %	0	0	0	0	42.9	57.1	0	0	19.4	6.5	74.2	0	0	36	64	0	
Total %	0	0	0	0	14.6	19.5	0	0	4.9	1.6	18.7	0	0	14.6	26	0	

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	0	0	0	0	2	4	0	0	6	0	1	7	0	8	0	2	6	0	8	22
11:15 AM	0	0	0	0	0	1	4	0	0	5	1	0	2	0	3	0	1	4	0	5	13
11:30 AM	0	0	0	0	0	2	2	0	0	4	0	0	5	0	5	0	3	4	0	7	16
11:45 AM	0	0	0	0	0	0	2	0	0	2	2	0	1	0	3	0	4	5	0	9	14
Total Volume	0	0	0	0	0	5	12	0	0	17	3	1	15	0	19	0	10	19	0	29	65
% App. Total	0	0	0	0		29.4	70.6	0	0		15.8	5.3	78.9	0		0	34.5	65.5	0		
PHF	.000	.000	.000	.000	.000	.625	.750	.000	.000	.708	.375	.250	.536	.000	.594	.000	.625	.792	.000	.806	.739

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KKK
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Drive From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	52	40	0	0	0	0	0	0	0	0	0	0	31	0	0	0	123
11:15 AM	62	56	0	0	0	0	0	0	0	0	0	0	26	0	2	1	147
11:30 AM	62	59	0	0	0	0	0	0	0	0	0	0	26	0	0	0	147
11:45 AM	68	44	0	0	0	0	0	0	0	0	0	0	26	0	1	0	139
Total	244	199	0	0	0	0	0	0	0	0	0	0	109	0	3	1	556
12:00 PM	70	68	0	0	0	0	0	0	0	0	0	0	31	0	0	0	169
12:15 PM	61	67	0	0	0	0	0	0	0	0	0	0	36	0	0	2	166
12:30 PM	63	50	0	0	0	0	0	0	0	0	0	0	35	0	0	0	148
12:45 PM	57	65	0	0	0	0	0	0	0	0	0	0	36	0	0	2	160
Total	251	250	0	0	0	0	0	0	0	0	0	0	138	0	0	4	643
Grand Total	495	449	0	0	0	0	0	0	0	0	0	0	247	0	3	5	1199
Apprch %	52.4	47.6	0	0	0	0	0	0	0	0	0	0	96.9	0	1.2	2	
Total %	41.3	37.4	0	0	0	0	0	0	0	0	0	0	20.6	0	0.3	0.4	
Cars	481	435	0	0	0	0	0	0	0	0	0	0	246	0	3	5	1170
% Cars	97.2	96.9	0	0	0	0	0	0	0	0	0	0	99.6	0	100	100	97.6
Heavy Vehicles	14	14	0	0	0	0	0	0	0	0	0	0	1	0	0	0	29
% Heavy Vehicles	2.8	3.1	0	0	0	0	0	0	0	0	0	0	0.4	0	0	0	2.4

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Drive From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	70	68	0	0	138	0	0	0	0	0	0	0	0	0	0	31	0	0	0	31	169
12:15 PM	61	67	0	0	128	0	0	0	0	0	0	0	0	0	0	36	0	0	2	38	166
12:30 PM	63	50	0	0	113	0	0	0	0	0	0	0	0	0	0	35	0	0	0	35	148
12:45 PM	57	65	0	0	122	0	0	0	0	0	0	0	0	0	0	36	0	0	2	38	160
Total Volume	251	250	0	0	501	0	0	0	0	0	0	0	0	0	0	138	0	0	4	142	643
% App. Total	50.1	49.9	0	0		0	0	0	0		0	0	0	0		97.2	0	0	2.8		
PHF	.896	.919	.000	.000	.908	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.958	.000	.000	.500	.934	.951
Cars	244	242	0	0	486	0	0	0	0	0	0	0	0	0	0	138	0	0	4	142	628
% Cars	97.2	96.8	0	0	97.0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	100	97.7
Heavy Vehicles	7	8	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
% Heavy Vehicles	2.8	3.2	0	0	3.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KKK
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Drive From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	51	36	0	0	0	0	0	0	0	0	0	0	31	0	0	0	118
11:15 AM	59	55	0	0	0	0	0	0	0	0	0	0	25	0	2	1	142
11:30 AM	60	58	0	0	0	0	0	0	0	0	0	0	26	0	0	0	144
11:45 AM	67	44	0	0	0	0	0	0	0	0	0	0	26	0	1	0	138
Total	237	193	0	0	0	0	0	0	0	0	0	0	108	0	3	1	542
12:00 PM	70	65	0	0	0	0	0	0	0	0	0	0	31	0	0	0	166
12:15 PM	59	67	0	0	0	0	0	0	0	0	0	0	36	0	0	2	164
12:30 PM	61	46	0	0	0	0	0	0	0	0	0	0	35	0	0	0	142
12:45 PM	54	64	0	0	0	0	0	0	0	0	0	0	36	0	0	2	156
Total	244	242	0	0	0	0	0	0	0	0	0	0	138	0	0	4	628
Grand Total	481	435	0	0	0	0	0	0	0	0	0	0	246	0	3	5	1170
Apprch %	52.5	47.5	0	0	0	0	0	0	0	0	0	0	96.9	0	1.2	2	
Total %	41.1	37.2	0	0	0	0	0	0	0	0	0	0	21	0	0.3	0.4	

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Drive From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	70	65	0	0	135	0	0	0	0	0	0	0	0	0	0	31	0	0	0	31	166
12:15 PM	59	67	0	0	126	0	0	0	0	0	0	0	0	0	0	36	0	0	2	38	164
12:30 PM	61	46	0	0	107	0	0	0	0	0	0	0	0	0	0	35	0	0	0	35	142
12:45 PM	54	64	0	0	118	0	0	0	0	0	0	0	0	0	0	36	0	0	2	38	156
Total Volume	244	242	0	0	486	0	0	0	0	0	0	0	0	0	0	138	0	0	4	142	628
% App. Total	50.2	49.8	0	0		0	0	0	0		0	0	0	0		97.2	0	0	2.8		
PHF	.871	.903	.000	.000	.900	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.958	.000	.000	.500	.934	.946

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KKK
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				From East				Boston Street From South				Plaza Drive From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11:15 AM	3	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
11:30 AM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	7	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	14
12:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:15 PM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
12:45 PM	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Grand Total	14	14	0	0	0	0	0	0	0	0	0	0	1	0	0	0	29
Apprch %	50	50	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	48.3	48.3	0	0	0	0	0	0	0	0	0	0	3.4	0	0	0	

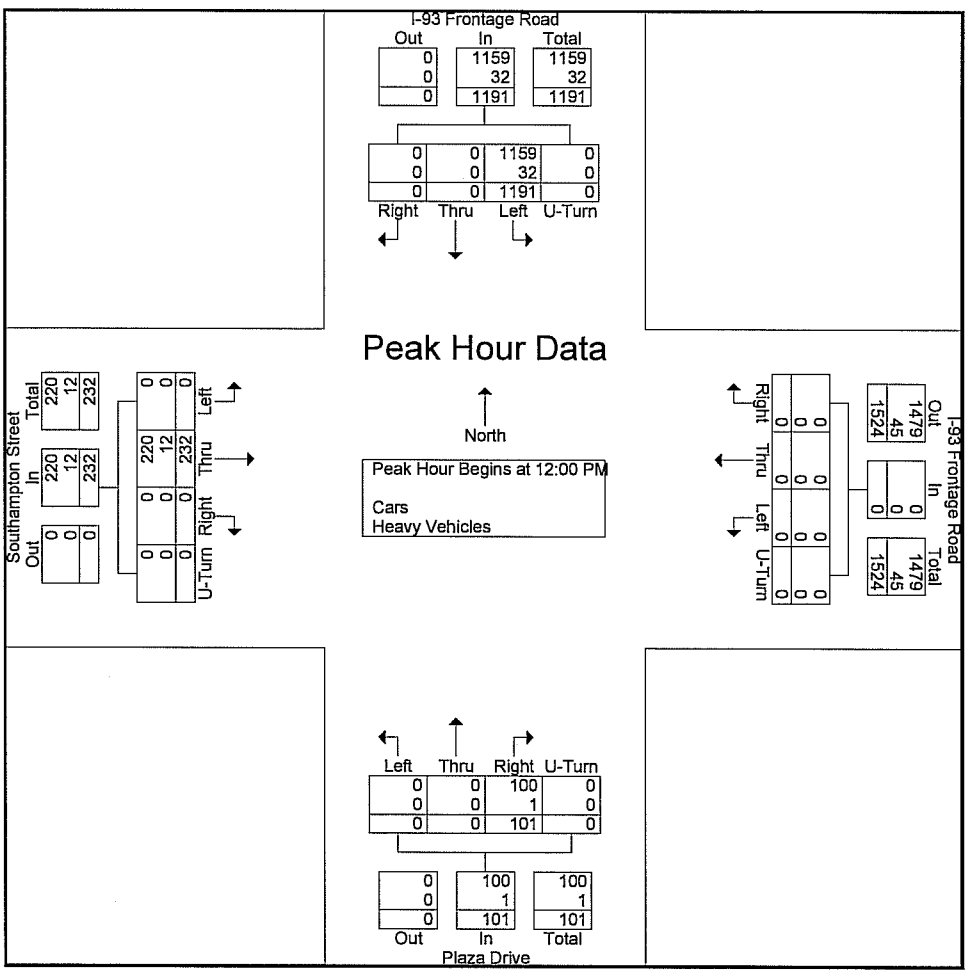
	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Drive From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
12:45 PM	3	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total Volume	7	8	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
% App. Total	46.7	53.3	0	0		0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.583	.500	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.625

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJJ
Site Code : 804
Start Date : 11/15/2014
Page No : 1

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	291	0	291	0	0	0	0	0	24	0	0	0	24	0	49	0	0	49	364
12:15 PM	0	0	293	0	293	0	0	0	0	0	25	0	0	0	25	0	53	0	0	53	371
12:30 PM	0	0	313	0	313	0	0	0	0	0	26	0	0	0	26	0	49	0	0	49	388
12:45 PM	0	0	294	0	294	0	0	0	0	0	26	0	0	0	26	0	81	0	0	81	401
Total Volume	0	0	1191	0	1191	0	0	0	0	0	101	0	0	0	101	0	232	0	0	232	1524
% App. Total																					
PHF	.000	.000	.951	.000	.951	.000	.000	.000	.000	.000	.971	.000	.000	.000	.971	.000	.716	.000	.000	.716	.950
Cars	0	0	1159	0	1159	0	0	0	0	0	100	0	0	0	100	0	220	0	0	220	1479
% Cars	0	0	97.3	0	97.3	0	0	0	0	0	99.0	0	0	0	99.0	0	94.8	0	0	94.8	97.0
Heavy Vehicles																					
% Heavy Vehicles	0	0	2.7	0	2.7	0	0	0	0	0	1.0	0	0	0	1.0	0	5.2	0	0	5.2	3.0



N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJJ
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	248	0	0	0	0	0	31	0	0	0	0	62	0	0	341
11:15 AM	0	0	293	0	0	0	0	0	35	0	0	0	0	55	0	0	383
11:30 AM	0	0	292	0	0	0	0	0	22	0	0	0	0	50	0	0	364
11:45 AM	0	0	274	0	0	0	0	0	27	0	0	0	0	46	0	0	347
Total	0	0	1107	0	0	0	0	0	115	0	0	0	0	213	0	0	1435
12:00 PM	0	0	291	0	0	0	0	0	24	0	0	0	0	49	0	0	364
12:15 PM	0	0	293	0	0	0	0	0	25	0	0	0	0	53	0	0	371
12:30 PM	0	0	313	0	0	0	0	0	26	0	0	0	0	49	0	0	388
12:45 PM	0	0	294	0	0	0	0	0	26	0	0	0	0	81	0	0	401
Total	0	0	1191	0	0	0	0	0	101	0	0	0	0	232	0	0	1524
Grand Total	0	0	2298	0	0	0	0	0	216	0	0	0	0	445	0	0	2959
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	77.7	0	0	0	0	0	7.3	0	0	0	0	15	0	0	
Cars	0	0	2232	0	0	0	0	0	214	0	0	0	0	420	0	0	2866
% Cars	0	0	97.1	0	0	0	0	0	99.1	0	0	0	0	94.4	0	0	96.9
Heavy Vehicles	0	0	66	0	0	0	0	0	2	0	0	0	0	25	0	0	93
% Heavy Vehicles	0	0	2.9	0	0	0	0	0	0.9	0	0	0	0	5.6	0	0	3.1

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	291	0	291	0	0	0	0	0	24	0	0	0	24	0	49	0	0	49	364
12:15 PM	0	0	293	0	293	0	0	0	0	0	25	0	0	0	25	0	53	0	0	53	371
12:30 PM	0	0	313	0	313	0	0	0	0	0	26	0	0	0	26	0	49	0	0	49	388
12:45 PM	0	0	294	0	294	0	0	0	0	0	26	0	0	0	26	0	81	0	0	81	401
Total Volume	0	0	1191	0	1191	0	0	0	0	0	101	0	0	0	101	0	232	0	0	232	1524
% App. Total																					
PHF	.000	.000	.951	.000	.951	.000	.000	.000	.000	.000	.971	.000	.000	.000	.971	.000	.716	.000	.000	.716	.950
Cars	0	0	1159	0	1159	0	0	0	0	0	100	0	0	0	100	0	220	0	0	220	1479
% Cars	0	0	97.3	0	97.3	0	0	0	0	0	99.0	0	0	0	99.0	0	94.8	0	0	94.8	97.0
Heavy Vehicles																					
% Heavy Vehicles	0	0	2.7	0	2.7	0	0	0	0	0	1.0	0	0	0	1.0	0	5.2	0	0	5.2	3.0

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJJ
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Cars

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	237	0	0	0	0	0	30	0	0	0	0	61	0	0	328
11:15 AM	0	0	281	0	0	0	0	0	35	0	0	0	0	48	0	0	364
11:30 AM	0	0	283	0	0	0	0	0	22	0	0	0	0	49	0	0	354
11:45 AM	0	0	272	0	0	0	0	0	27	0	0	0	0	42	0	0	341
Total	0	0	1073	0	0	0	0	0	114	0	0	0	0	200	0	0	1387
12:00 PM	0	0	285	0	0	0	0	0	24	0	0	0	0	42	0	0	351
12:15 PM	0	0	287	0	0	0	0	0	25	0	0	0	0	52	0	0	364
12:30 PM	0	0	300	0	0	0	0	0	25	0	0	0	0	47	0	0	372
12:45 PM	0	0	287	0	0	0	0	0	26	0	0	0	0	79	0	0	392
Total	0	0	1159	0	0	0	0	0	100	0	0	0	0	220	0	0	1479
Grand Total	0	0	2232	0	0	0	0	0	214	0	0	0	0	420	0	0	2866
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	77.9	0	0	0	0	0	7.5	0	0	0	0	14.7	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	285	0	285	0	0	0	0	0	24	0	0	0	24	0	42	0	0	42	351
12:15 PM	0	0	287	0	287	0	0	0	0	0	25	0	0	0	25	0	52	0	0	52	364
12:30 PM	0	0	300	0	300	0	0	0	0	0	25	0	0	0	25	0	47	0	0	47	372
12:45 PM	0	0	287	0	287	0	0	0	0	0	26	0	0	0	26	0	79	0	0	79	392
Total Volume	0	0	1159	0	1159	0	0	0	0	0	100	0	0	0	100	0	220	0	0	220	1479
% App. Total																					
PHF	.000	.000	.966	.000	.966	.000	.000	.000	.000	.000	.962	.000	.000	.000	.962	.000	.696	.000	.000	.696	.943

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
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Office: 508.481.3999 Fax: 508.545.1234
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File Name : 144163 JJJ
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Heavy Vehicles

	I-93 Frontage Road From North				I-93 Frontage Road From East				Plaza Drive From South				Southampton Street From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	11	0	0	0	0	0	1	0	0	0	0	1	0	0	13
11:15 AM	0	0	12	0	0	0	0	0	0	0	0	0	0	7	0	0	19
11:30 AM	0	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	10
11:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	4	0	0	6
Total	0	0	34	0	0	0	0	0	1	0	0	0	0	13	0	0	48
12:00 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	7	0	0	13
12:15 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	7
12:30 PM	0	0	13	0	0	0	0	0	1	0	0	0	0	2	0	0	16
12:45 PM	0	0	7	0	0	0	0	0	0	0	0	0	0	2	0	0	9
Total	0	0	32	0	0	0	0	0	1	0	0	0	0	12	0	0	45
Grand Total	0	0	66	0	0	0	0	0	2	0	0	0	0	25	0	0	93
Apprch %	0	0	100	0	0	0	0	0	100	0	0	0	0	100	0	0	
Total %	0	0	71	0	0	0	0	0	2.2	0	0	0	0	26.9	0	0	

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:00 AM																					
11:00 AM	0	0	11	0	11	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	13
11:15 AM	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	19
11:30 AM	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	10
11:45 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	6
Total Volume	0	0	34	0	34	0	0	0	0	0	1	0	0	0	1	0	13	0	0	13	48
% App. Total	0	0	100	0		0	0	0	0		100	0	0	0		0	100	0	0		
PHF	.000	.000	.708	.000	.708	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.000	.464	.000	.000	.464	.632

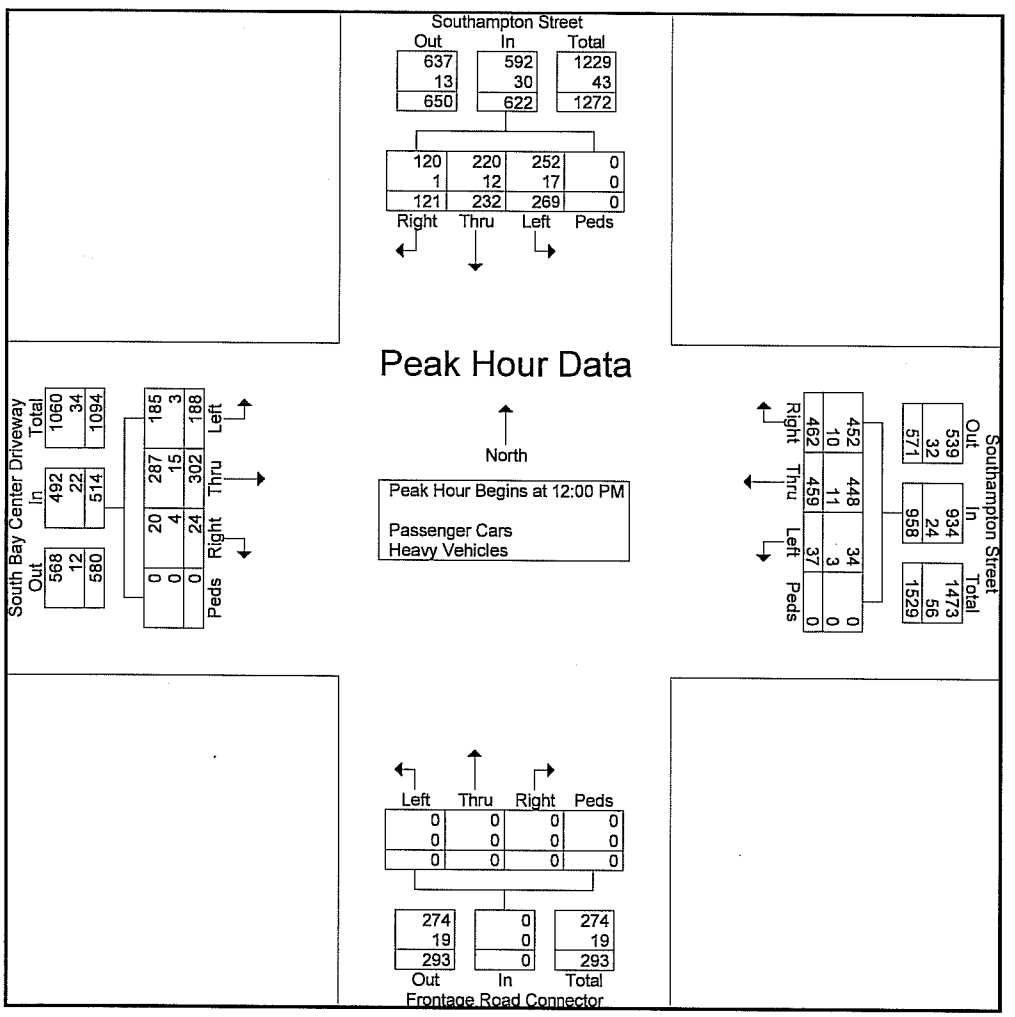
MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay Sat
Site Code : 00804001
Start Date : 11/22/2014
Page No : 2

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	30	**77**	58	0	**165**	**118**	**119**	**14**	0	**251**	0	0	0	0	0	**10**	70	34	0	114	530
12:15 PM	**37**	52	69	0	158	112	114	6	0	232	0	0	0	0	0	6	76	45	0	127	517
12:30 PM	25	61	70	0	156	118	109	8	0	235	0	0	0	0	0	3	**81**	**64**	0	**148**	**539**
12:45 PM	29	42	**72**	0	143	114	117	9	0	240	0	0	0	0	0	5	75	45	0	125	508
Total Volume	121	232	269	0	622	462	459	37	0	958	0	0	0	0	0	24	302	188	0	514	2094
% App. Total	19.5	37.3	43.2	0		48.2	47.9	3.9	0		0	0	0	0		4.7	58.8	36.6	0		
PHF	.818	.753	.934	.000	.942	.979	.964	.661	.000	.954	.000	.000	.000	.000	.000	.600	.932	.734	.000	.868	.971
Passenger Cars	120	220	252	0	592	452	448	34	0	934	0	0	0	0	0	20	287	185	0	492	2018
% Passenger Cars																					
Heavy Vehicles	1	12	17	0	30	10	11	3	0	24	0	0	0	0	0	4	15	3	0	22	76
% Heavy Vehicles	0.8	5.2	6.3	0	4.8	2.2	2.4	8.1	0	2.5	0	0	0	0	0	16.7	5.0	1.6	0	4.3	3.6



MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay Sat
Site Code : 00804001
Start Date : 11/22/2014
Page No : 1

Groups Printed- Passenger Cars - Heavy Vehicles

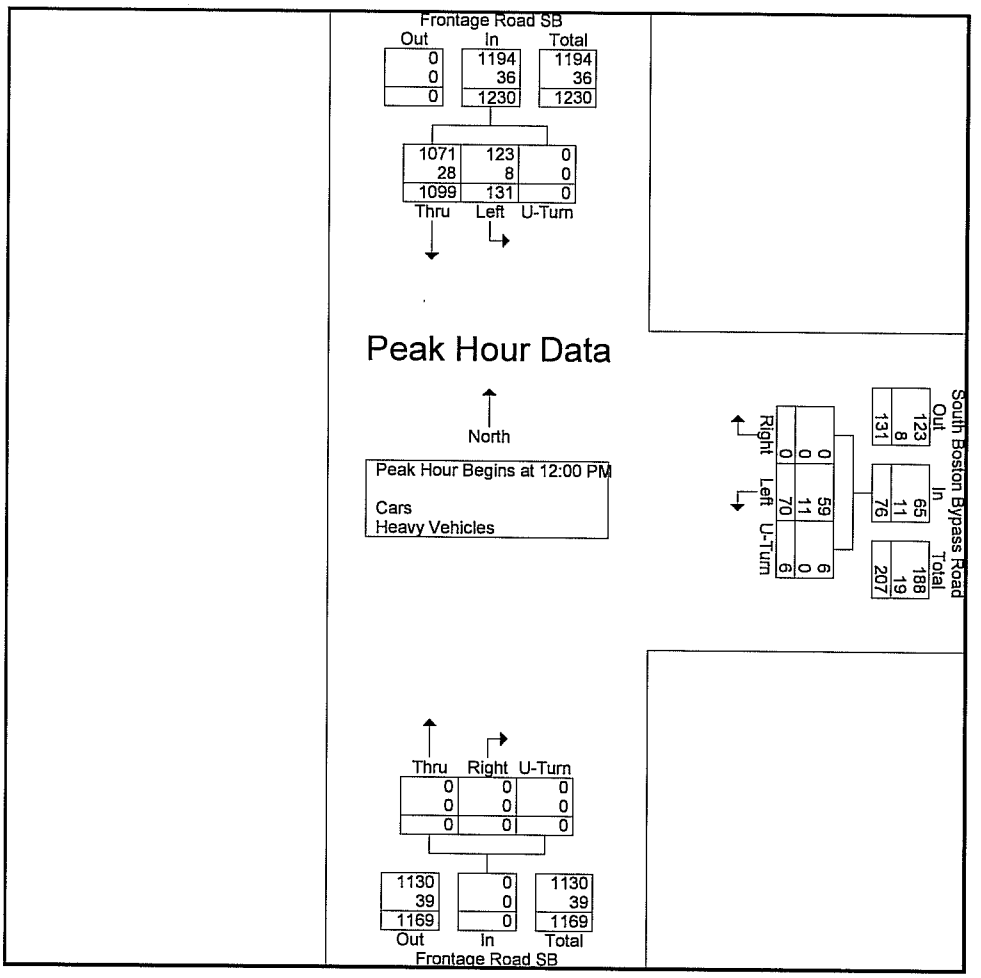
	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 PM	30	77	58	0	165	118	119	14	0	251	0	0	0	0	0	10	70	34	0	114	530
12:15 PM	37	52	69	0	158	112	114	6	0	232	0	0	0	0	0	6	76	45	0	127	517
12:30 PM	25	61	70	0	156	118	109	8	0	235	0	0	0	0	0	3	81	64	0	148	539
12:45 PM	29	42	72	0	143	114	117	9	0	240	0	0	0	0	0	5	75	45	0	125	508
Total	121	232	269	0	622	462	459	37	0	958	0	0	0	0	0	24	302	188	0	514	2094
Grand Total	121	232	269	0	622	462	459	37	0	958	0	0	0	0	0	24	302	188	0	514	2094
Apprch %	19.5	37.3	43.2	0		48.2	47.9	3.9	0		0	0	0	0		4.7	58.8	36.6	0		
Total %	5.8	11.1	12.8	0	29.7	22.1	21.9	1.8	0	45.7	0	0	0	0	0	1.1	14.4	9	0	24.5	
Passenger Cars	120	220	252	0	592	452	448	34	0	934	0	0	0	0	0	20	287	185	0	492	2018
% Passenger Cars																					
Heavy Vehicles	1	12	17	0	30	10	11	3	0	24	0	0	0	0	0	4	15	3	0	22	76
% Heavy Vehicles	0.8	5.2	6.3	0	4.8	2.2	2.4	8.1	0	2.5	0	0	0	0	0	16.7	5	1.6	0	4.3	3.6

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 AAA
Site Code : 804
Start Date : 4/18/2015
Page No : 1

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	281	33	0	314	0	19	0	19	0	0	0	0	333
12:15 PM	284	35	0	319	0	19	3	22	0	0	0	0	341
12:30 PM	253	21	0	274	0	14	1	15	0	0	0	0	289
12:45 PM	281	42	0	323	0	18	2	20	0	0	0	0	343
Total Volume	1099	131	0	1230	0	70	6	76	0	0	0	0	1306
% App. Total	89.3	10.7	0		0	92.1	7.9		0	0	0		
PHF	.967	.780	.000	.952	.000	.921	.500	.864	.000	.000	.000	.000	.952
Cars	1071	123	0	1194	0	59	6	65	0	0	0	0	1259
% Cars	97.5	93.9	0	97.1	0	84.3	100	85.5	0	0	0	0	96.4
Heavy Vehicles	28	8	0	36	0	11	0	11	0	0	0	0	47
% Heavy Vehicles	2.5	6.1	0	2.9	0	15.7	0	14.5	0	0	0	0	3.6



N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 AAA
Site Code : 804
Start Date : 4/18/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road SB From North			South Boston Bypass Road From East			Frontage Road SB From South			
Start Time	Thru	Left	U-Turn	Right	Left	U-Turn	Right	Thru	U-Turn	Int. Total
11:00 AM	285	44	0	0	14	0	0	0	0	343
11:15 AM	286	46	0	0	15	3	0	0	0	350
11:30 AM	271	30	0	0	15	1	0	0	0	317
11:45 AM	255	24	0	0	12	2	0	0	0	293
Total	1097	144	0	0	56	6	0	0	0	1303
12:00 PM	281	33	0	0	19	0	0	0	0	333
12:15 PM	284	35	0	0	19	3	0	0	0	341
12:30 PM	253	21	0	0	14	1	0	0	0	289
12:45 PM	281	42	0	0	18	2	0	0	0	343
Total	1099	131	0	0	70	6	0	0	0	1306
Grand Total	2196	275	0	0	126	12	0	0	0	2609
Apprch %	88.9	11.1	0	0	91.3	8.7	0	0	0	
Total %	84.2	10.5	0	0	4.8	0.5	0	0	0	
Cars	2146	257	0	0	105	12	0	0	0	2520
% Cars	97.7	93.5	0	0	83.3	100	0	0	0	96.6
Heavy Vehicles	50	18	0	0	21	0	0	0	0	89
% Heavy Vehicles	2.3	6.5	0	0	16.7	0	0	0	0	3.4

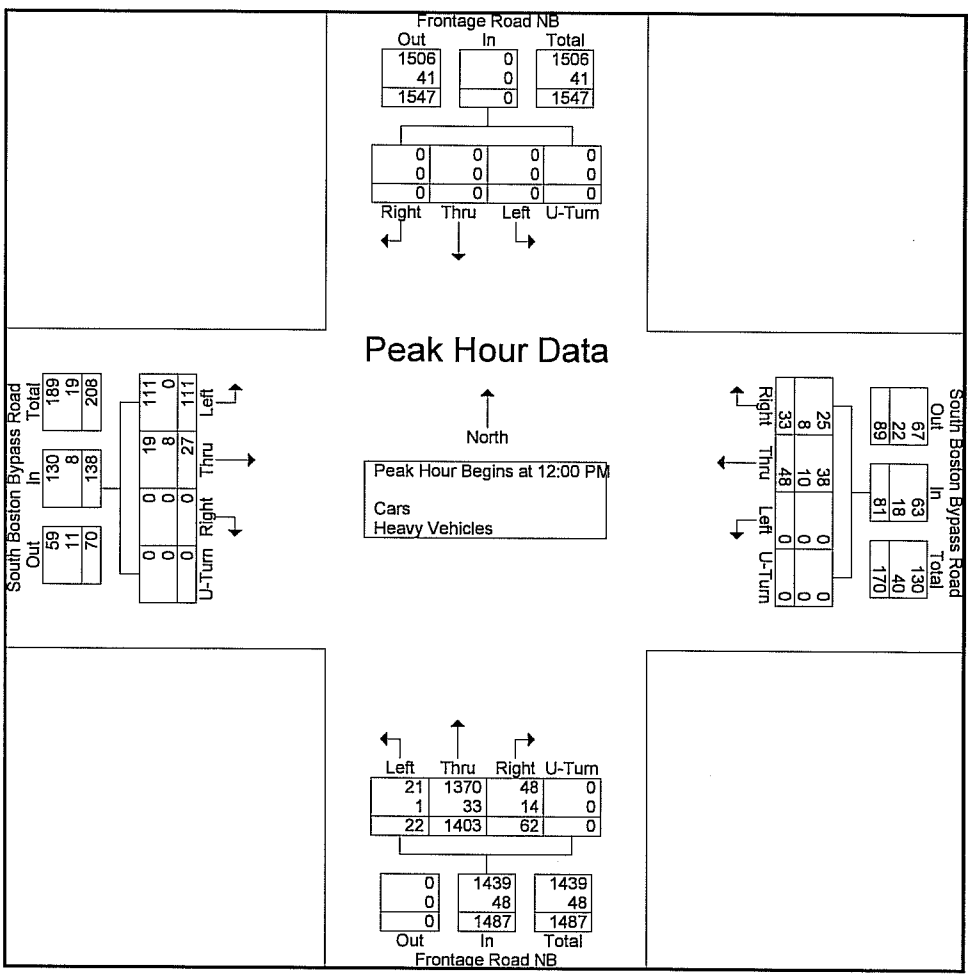
	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:00 PM													
12:00 PM	281	33	0	314	0	19	0	19	0	0	0	0	333
12:15 PM	284	35	0	319	0	19	3	22	0	0	0	0	341
12:30 PM	253	21	0	274	0	14	1	15	0	0	0	0	289
12:45 PM	281	42	0	323	0	18	2	20	0	0	0	0	343
Total Volume	1099	131	0	1230	0	70	6	76	0	0	0	0	1306
% App. Total	89.3	10.7	0		0	92.1	7.9		0	0	0		
PHF	.967	.780	.000	.952	.000	.921	.500	.864	.000	.000	.000	.000	.952
Cars	1071	123	0	1194	0	59	6	65	0	0	0	0	1259
% Cars	97.5	93.9	0	97.1	0	84.3	100	85.5	0	0	0	0	96.4
Heavy Vehicles	28	8	0	36	0	11	0	11	0	0	0	0	47
% Heavy Vehicles	2.5	6.1	0	2.9	0	15.7	0	14.5	0	0	0	0	3.6

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 BBB
Site Code : 804
Start Date : 4/18/2015
Page No : 1

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	7	13	0	0	20	21	350	6	0	377	0	7	27	0	34	431
12:15 PM	0	0	0	0	0	11	13	0	0	24	14	370	8	0	392	0	6	33	0	39	455
12:30 PM	0	0	0	0	0	8	9	0	0	17	12	325	3	0	340	0	3	19	0	22	379
12:45 PM	0	0	0	0	0	7	13	0	0	20	15	358	5	0	378	0	11	32	0	43	441
Total Volume	0	0	0	0	0	33	48	0	0	81	62	1403	22	0	1487	0	27	111	0	138	1706
% App. Total	0	0	0	0		40.7	59.3	0	0		4.2	94.4	1.5	0		0	19.6	80.4	0		
PHF	.000	.000	.000	.000	.000	.750	.923	.000	.000	.844	.738	.948	.688	.000	.948	.000	.614	.841	.000	.802	.937
Cars	0	0	0	0	0	25	38	0	0	63	48	1370	21	0	1439	0	19	111	0	130	1632
% Cars	0	0	0	0	0	75.8	79.2	0	0	77.8	77.4	97.6	95.5	0	96.8	0	70.4	100	0	94.2	95.7
Heavy Vehicles	0	0	0	0	0	8	10	0	0	18	14	33	1	0	48	0	8	0	0	8	74
% Heavy Vehicles	0	0	0	0	0	24.2	20.8	0	0	22.2	22.6	2.4	4.5	0	3.2	0	29.6	0	0	5.8	4.3



N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 BBB
Site Code : 804
Start Date : 4/18/2015
Page No : 1

Groups Printed- Cars - Heavy Vehicles

	Frontage Road NB From North				South Boston Bypass Road From East				Frontage Road NB From South				South Boston Bypass Road From West				
Start Time	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Right	Thru	Left	U-Turn	Int. Total
11:00 AM	0	0	0	0	8	10	0	0	15	341	4	0	0	6	36	0	420
11:15 AM	0	0	0	0	9	9	0	0	13	298	6	0	0	9	40	0	384
11:30 AM	0	0	0	0	9	11	0	0	11	365	5	0	0	5	25	0	431
11:45 AM	0	0	0	0	3	5	0	0	11	311	7	0	0	4	18	0	359
Total	0	0	0	0	29	35	0	0	50	1315	22	0	0	24	119	0	1594
12:00 PM	0	0	0	0	7	13	0	0	21	350	6	0	0	7	27	0	431
12:15 PM	0	0	0	0	11	13	0	0	14	370	8	0	0	6	33	0	455
12:30 PM	0	0	0	0	8	9	0	0	12	325	3	0	0	3	19	0	379
12:45 PM	0	0	0	0	7	13	0	0	15	358	5	0	0	11	32	0	441
Total	0	0	0	0	33	48	0	0	62	1403	22	0	0	27	111	0	1706
Grand Total	0	0	0	0	62	83	0	0	112	2718	44	0	0	51	230	0	3300
Apprch %	0	0	0	0	42.8	57.2	0	0	3.9	94.6	1.5	0	0	18.1	81.9	0	
Total %	0	0	0	0	1.9	2.5	0	0	3.4	82.4	1.3	0	0	1.5	7	0	
Cars	0	0	0	0	49	66	0	0	87	2671	43	0	0	38	225	0	3179
% Cars	0	0	0	0	79	79.5	0	0	77.7	98.3	97.7	0	0	74.5	97.8	0	96.3
Heavy Vehicles	0	0	0	0	13	17	0	0	25	47	1	0	0	13	5	0	121
% Heavy Vehicles	0	0	0	0	21	20.5	0	0	22.3	1.7	2.3	0	0	25.5	2.2	0	3.7

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	0	0	0	0	7	13	0	0	20	21	350	6	0	377	0	7	27	0	34	431
12:15 PM	0	0	0	0	0	11	13	0	0	24	14	370	8	0	392	0	6	33	0	39	455
12:30 PM	0	0	0	0	0	8	9	0	0	17	12	325	3	0	340	0	3	19	0	22	379
12:45 PM	0	0	0	0	0	7	13	0	0	20	15	358	5	0	378	0	11	32	0	43	441
Total Volume	0	0	0	0	0	33	48	0	0	81	62	1403	22	0	1487	0	27	111	0	138	1706
% App. Total	0	0	0	0		40.7	59.3	0	0		4.2	94.4	1.5	0		0	19.6	80.4	0		
PHF	.000	.000	.000	.000	.000	.750	.923	.000	.000	.844	.738	.948	.688	.000	.948	.000	.614	.841	.000	.802	.937
Cars	0	0	0	0	0	25	38	0	0	63	48	1370	21	0	1439	0	19	111	0	130	1632
% Cars	0	0	0	0	0	75.8	79.2	0	0	77.8	77.4	97.6	95.5	0	96.8	0	70.4	100	0	94.2	95.7
Heavy Vehicles	0	0	0	0	0	8	10	0	0	18	14	33	1	0	48	0	8	0	0	8	74
% Heavy Vehicles	0	0	0	0	0	24.2	20.8	0	0	22.2	22.6	2.4	4.5	0	3.2	0	29.6	0	0	5.8	4.3

□ Pedestrian/Bicycle Data

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 D
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	2	0	1	1	0	0	0	20	15	0	2	0	0	4	0	0	0	12	19	76
07:15 AM	0	0	0	0	0	0	0	0	14	15	0	2	0	0	2	0	0	0	6	8	47
07:30 AM	0	4	0	0	1	0	0	0	17	11	0	3	0	3	0	0	0	0	16	12	67
07:45 AM	0	3	0	6	0	0	0	0	11	29	0	4	0	1	0	0	0	0	17	22	93
Total	0	9	0	7	2	0	0	0	62	70	0	11	0	4	6	0	0	0	51	61	283
08:00 AM	0	2	0	0	4	0	0	0	20	32	0	3	0	0	0	0	0	0	11	12	84
08:15 AM	0	0	0	3	1	0	0	0	21	16	0	3	0	0	0	0	0	0	13	4	61
08:30 AM	0	3	0	1	3	0	0	0	26	22	0	8	0	0	0	0	0	0	13	9	85
08:45 AM	0	2	0	3	0	0	0	0	19	22	0	2	0	0	0	0	0	0	11	11	70
Total	0	7	0	7	8	0	0	0	86	92	0	16	0	0	0	0	0	0	48	36	300
Grand Total	0	16	0	14	10	0	0	0	148	162	0	27	0	4	6	0	0	0	99	97	583
Apprch %	0	40	0	35	25	0	0	0	47.7	52.3	0	73	0	10.8	16.2	0	0	0	50.5	49.5	
Total %	0	2.7	0	2.4	1.7	0	0	0	25.4	27.8	0	4.6	0	0.7	1	0	0	0	17	16.6	

	Massachusetts Avenue From North						Mass Ave Connector From East						Massachusetts Avenue From South						Melnea Cass Boulevard From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:45 AM																									
07:45 AM	0	3	0	6	0	9	0	0	0	11	29	40	0	4	0	1	0	5	0	0	0	17	22	39	93
08:00 AM	0	2	0	0	4	6	0	0	0	20	32	52	0	3	0	0	0	3	0	0	0	11	12	23	84
08:15 AM	0	0	0	3	1	4	0	0	0	21	16	37	0	3	0	0	0	3	0	0	0	13	4	17	61
08:30 AM	0	3	0	1	3	7	0	0	0	26	22	48	0	8	0	0	0	8	0	0	0	13	9	22	85
Total Volume	0	8	0	10	8	26	0	0	0	78	99	177	0	18	0	1	0	19	0	0	0	54	47	101	323
% App. Total	0	30.8	0	38.5	30.8		0	0	0	44.1	55.9		0	94.7	0	5.3	0		0	0	0	53.5	46.5		
PHF	.000	.667	.000	.417	.500	.722	.000	.000	.000	.750	.773	.851	.000	.563	.000	.250	.000	.594	.000	.000	.000	.794	.534	.647	.868

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 C
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	1	0	0	0	0	0	0	8	2	0	0	0	0	6	0	0	0	4	5	26
07:15 AM	0	0	0	2	1	0	0	0	7	1	0	2	0	3	15	0	0	0	3	1	35
07:30 AM	0	2	0	1	0	0	0	0	6	8	0	3	0	2	19	0	0	0	3	1	45
07:45 AM	0	4	0	6	1	0	0	0	14	14	0	4	0	2	35	0	0	0	2	0	82
Total	0	7	0	9	2	0	0	0	35	25	0	9	0	7	75	0	0	0	12	7	188
08:00 AM	0	1	0	1	0	0	0	0	8	6	0	7	0	7	20	0	0	0	3	3	56
08:15 AM	0	0	0	1	4	0	0	0	2	10	0	2	0	4	14	0	0	0	1	3	41
08:30 AM	0	3	0	4	2	0	0	0	18	4	0	3	0	6	15	0	0	0	6	2	63
08:45 AM	0	0	0	1	6	0	0	0	5	16	0	1	0	3	25	0	0	0	4	1	62
Total	0	4	0	7	12	0	0	0	33	36	0	13	0	20	74	0	0	0	14	9	222
Grand Total	0	11	0	16	14	0	0	0	68	61	0	22	0	27	149	0	0	0	26	16	410
Apprch %	0	26.8	0	39	34.1	0	0	0	52.7	47.3	0	11.1	0	13.6	75.3	0	0	0	61.9	38.1	
Total %	0	2.7	0	3.9	3.4	0	0	0	16.6	14.9	0	5.4	0	6.6	36.3	0	0	0	6.3	3.9	

	Massachusetts Avenue From North						Magazine Street From East						Massachusetts Avenue From South						Magazine Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:45 AM																									
07:45 AM	0	4	0	6	1	11	0	0	0	14	14	28	0	4	0	2	35	41	0	0	0	2	0	2	82
08:00 AM	0	1	0	1	0	2	0	0	0	8	6	14	0	7	0	7	20	34	0	0	0	3	3	6	56
08:15 AM	0	0	0	1	4	5	0	0	0	2	10	12	0	2	0	4	14	20	0	0	0	1	3	4	41
08:30 AM	0	3	0	4	2	9	0	0	0	18	4	22	0	3	0	6	15	24	0	0	0	6	2	8	63
Total Volume	0	8	0	12	7	27	0	0	0	42	34	76	0	16	0	19	84	119	0	0	0	12	8	20	242
% App. Total	0	29.6	0	44.4	25.9		0	0	0	55.3	44.7		0	13.4	0	16	70.6		0	0	0	60	40		
PHF	.000	.500	.000	.500	.438	.614	.000	.000	.000	.583	.607	.679	.000	.571	.000	.679	.600	.726	.000	.000	.000	.500	.667	.625	.738

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 M
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	1	0	0	0	0	2	0	6	7	0	0	0	0	0	0	0	0	5	2	23
07:15 AM	1	0	0	5	0	0	0	0	3	6	2	3	0	0	0	0	0	0	3	2	25
07:30 AM	0	2	0	3	2	0	0	0	1	16	0	4	0	0	0	0	0	0	2	0	30
07:45 AM	0	1	0	3	1	0	0	0	4	13	0	3	0	0	0	0	0	0	3	1	29
Total	1	4	0	11	3	0	2	0	14	42	2	10	0	0	0	0	0	0	13	5	107
08:00 AM	0	1	0	5	0	0	0	0	3	6	0	5	0	0	1	1	0	0	2	1	25
08:15 AM	0	0	0	3	1	0	0	0	6	12	2	4	0	0	0	0	0	0	3	2	33
08:30 AM	0	1	0	2	0	0	0	0	6	12	2	4	0	0	0	0	0	0	1	3	31
08:45 AM	0	0	0	4	1	0	0	0	9	24	0	1	0	0	0	0	0	0	3	1	43
Total	0	2	0	14	2	0	0	0	24	54	4	14	0	0	1	1	0	0	9	7	132
Grand Total	1	6	0	25	5	0	2	0	38	96	6	24	0	0	1	1	0	0	22	12	239
Apprch %	2.7	16.2	0	67.6	13.5	0	1.5	0	27.9	70.6	19.4	77.4	0	0	3.2	2.9	0	0	62.9	34.3	
Total %	0.4	2.5	0	10.5	2.1	0	0.8	0	15.9	40.2	2.5	10	0	0	0.4	0.4	0	0	9.2	5	

	Massachusetts Avenue From North						Newmarket Square From East						Massachusetts Avenue From South						Shirley Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	1	0	5	0	6	0	0	0	3	6	9	0	5	0	0	1	6	1	0	0	2	1	4	25
08:15 AM	0	0	0	3	1	4	0	0	0	6	12	18	2	4	0	0	0	6	0	0	0	3	2	5	33
08:30 AM	0	1	0	2	0	3	0	0	0	6	12	18	2	4	0	0	0	6	0	0	0	1	3	4	31
08:45 AM	0	0	0	4	1	5	0	0	0	9	24	33	0	1	0	0	0	1	0	0	0	3	1	4	43
Total Volume	0	2	0	14	2	18	0	0	0	24	54	78	4	14	0	0	1	19	1	0	0	9	7	17	132
% App. Total	0	11.1	0	77.8	11.1		0	0	0	30.8	69.2		21.1	73.7	0	0	5.3		5.9	0	0	52.9	41.2		
PHF	.000	.500	.000	.700	.500	.750	.000	.000	.000	.667	.563	.591	.500	.700	.000	.000	.250	.792	.250	.000	.000	.750	.583	.850	.767

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 N
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
07:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
07:15 AM	0	0	0	1	0	0	0	2	0	1	0	0	4
07:30 AM	2	0	0	0	0	0	2	2	0	1	0	0	7
07:45 AM	2	0	0	0	0	0	1	3	0	1	0	0	7
Total	5	0	0	1	0	0	3	8	0	3	0	0	20
08:00 AM	1	1	0	0	0	0	1	1	1	5	0	0	10
08:15 AM	0	0	0	1	2	0	2	4	0	6	0	0	15
08:30 AM	2	0	0	1	0	0	0	4	0	3	0	1	11
08:45 AM	0	0	1	0	0	0	2	4	0	1	0	0	8
Total	3	1	1	2	2	0	5	13	1	15	0	1	44
Grand Total	8	1	1	3	2	0	8	21	1	18	0	1	64
Apprch %	61.5	7.7	7.7	23.1	6.5	0	25.8	67.7	5	90	0	5	
Total %	12.5	1.6	1.6	4.7	3.1	0	12.5	32.8	1.6	28.1	0	1.6	

	Massachusetts Avenue From North					South Bay Center Driveway From East					Massachusetts Avenue From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 08:00 AM																
08:00 AM	1	1	0	0	2	0	0	1	1	2	1	5	0	0	6	10
08:15 AM	0	0	0	1	1	2	0	2	4	8	0	6	0	0	6	15
08:30 AM	2	0	0	1	3	0	0	0	4	4	0	3	0	1	4	11
08:45 AM	0	0	1	0	1	0	0	2	4	6	0	1	0	0	1	8
Total Volume	3	1	1	2	7	2	0	5	13	20	1	15	0	1	17	44
% App. Total	42.9	14.3	14.3	28.6		10	0	25	65		5.9	88.2	0	5.9		
PHF	.375	.250	.250	.500	.583	.250	.000	.625	.813	.625	.250	.625	.000	.250	.708	.733

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 B
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	4	2	11
07:15 AM	0	0	0	1	0	1	0	0	2	1	0	4	0	0	0	0	0	0	3	2	14
07:30 AM	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	1	4	1	3	0	1	1	0	0	0	3	1	15
Total	0	0	0	2	0	1	0	0	4	6	2	11	0	1	1	0	0	0	10	5	43
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0	3	0	12
08:15 AM	0	0	0	0	2	0	0	0	0	6	0	5	0	0	1	0	0	0	2	0	16
08:30 AM	0	1	0	1	0	0	0	0	6	5	1	4	0	2	0	0	0	0	7	1	28
08:45 AM	0	0	0	1	1	0	0	0	3	6	0	1	0	0	0	0	0	0	3	1	16
Total	0	2	0	3	3	0	0	0	9	17	1	17	0	2	1	0	0	0	15	2	72
Grand Total	0	2	0	5	3	1	0	0	13	23	3	28	0	3	2	0	0	0	25	7	115
Apprch %	0	20	0	50	30	2.7	0	0	35.1	62.2	8.3	77.8	0	8.3	5.6	0	0	0	78.1	21.9	
Total %	0	1.7	0	4.3	2.6	0.9	0	0	11.3	20	2.6	24.3	0	2.6	1.7	0	0	0	21.7	6.1	

	Massachusetts Avenue From North						Allstate Road From East						Massachusetts Avenue From South						Driveway From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	1	0	1	0	2	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	3	0	3	12
08:15 AM	0	0	0	0	2	2	0	0	0	0	6	6	0	5	0	0	1	6	0	0	0	2	0	2	16
08:30 AM	0	1	0	1	0	2	0	0	0	6	5	11	1	4	0	2	0	7	0	0	0	7	1	8	28
08:45 AM	0	0	0	1	1	2	0	0	0	3	6	9	0	1	0	0	0	1	0	0	0	3	1	4	16
Total Volume	0	2	0	3	3	8	0	0	0	9	17	26	1	17	0	2	1	21	0	0	0	15	2	17	72
% App. Total	0	25	0	37.5	37.5		0	0	0	34.6	65.4		4.8	81	0	9.5	4.8		0	0	0	88.2	11.8		
PHF	.000	.500	.000	.750	.375	1.00	.000	.000	.000	.375	.708	.591	.250	.607	.000	.250	.250	.750	.000	.000	.000	.536	.500	.531	.643

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 I
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	4
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	4
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	100	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	50	0	

	From North						Allstate Road From East						Plaza Drive From South						Allstate Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	2	0	2	4
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	50	50		0	0	0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.000	.500	.000	.500	1.00

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 O
Site Code : 804
Start Date : 11/20/2014
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Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	Right	Left	Hard Left	Peds SB	Peds NB	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	Hard Right	Right	Thru	Peds WB	Peds EB	Int. Total
07:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
07:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	6	0	0	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	3
Grand Total	0	1	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	8	0	0	12
Apprch %	0	50	0	50	0	0	0	0	0	0	0	50	0	0	50	0	0	100	0	0	
Total %	0	8.3	0	8.3	0	0	0	0	0	0	0	8.3	0	0	8.3	0	0	66.7	0	0	

	Massachusetts Avenue From North						Enterprise Street From East						Clapp Street From Southeast						Massachusetts Avenue From South						
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	App. Total	Right	Left	Hard Left	Peds SB	Peds NB	App. Total	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	App. Total	Hard Right	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
07:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	0	6	0	0	6	9
% App. Total	0	50	0	50	0		0	0	0	0	0		0	0	0	0	100		0	0	100	0	0		
PHF	.000	.250	.000	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.750	.000	.000	.750	.750

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 A
Site Code : 804
Start Date : 11/13/2014
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Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	1	0	0	4	5	0	0	0	0	2	0	0	0	4	8	0	0	0	3	0	27
07:15 AM	0	0	0	1	0	0	0	0	1	2	0	1	0	7	13	0	1	0	0	1	27
07:30 AM	0	1	0	10	1	0	0	0	1	0	0	0	0	7	34	0	2	0	0	0	56
07:45 AM	0	0	0	8	4	0	0	0	1	0	0	1	0	5	19	0	1	0	1	10	50
Total	1	1	0	23	10	0	0	0	3	4	0	2	0	23	74	0	4	0	4	11	160
08:00 AM	0	0	0	4	1	0	0	0	0	1	0	0	0	0	7	0	1	1	3	1	19
08:15 AM	0	0	0	5	1	0	0	0	4	10	0	0	0	0	4	0	1	0	1	3	29
08:30 AM	0	1	0	4	2	0	0	0	2	1	0	2	0	1	7	0	0	0	6	3	29
08:45 AM	0	0	0	3	1	0	0	0	0	2	0	0	1	5	3	1	0	1	1	2	20
Total	0	1	0	16	5	0	0	0	6	14	0	2	1	6	21	1	2	2	11	9	97
Grand Total	1	2	0	39	15	0	0	0	9	18	0	4	1	29	95	1	6	2	15	20	257
Apprch %	1.8	3.5	0	68.4	26.3	0	0	0	33.3	66.7	0	3.1	0.8	22.5	73.6	2.3	13.6	4.5	34.1	45.5	
Total %	0.4	0.8	0	15.2	5.8	0	0	0	3.5	7	0	1.6	0.4	11.3	37	0.4	2.3	0.8	5.8	7.8	

	Massachusetts Avenue From North						Boston Street From East						Columbia Road From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	1	0	0	4	5	10	0	0	0	0	2	2	0	0	0	4	8	12	0	0	0	3	0	3	27
07:15 AM	0	0	0	1	0	1	0	0	0	1	2	3	0	1	0	7	13	21	0	1	0	0	1	2	27
07:30 AM	0	1	0	10	1	12	0	0	0	1	0	1	0	0	0	7	34	41	0	2	0	0	0	2	56
07:45 AM	0	0	0	8	4	12	0	0	0	1	0	1	0	1	0	5	19	25	0	1	0	1	10	12	50
Total Volume	1	1	0	23	10	35	0	0	0	3	4	7	0	2	0	23	74	99	0	4	0	4	11	19	160
% App. Total	2.9	2.9	0	65.7	28.6		0	0	0	42.9	57.1		0	2	0	23.2	74.7		0	21.1	0	21.1	57.9		
PHF	.250	.250	.000	.575	.500	.729	.000	.000	.000	.750	.500	.583	.000	.500	.000	.821	.544	.604	.000	.500	.000	.333	.275	.396	.714

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 H
Site Code : 804
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Groups Printed- Peds and Bikes

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	2	0	0	0	0	0	0	3	0	0	12	0	0	0	1	0	18
07:15 AM	0	0	0	0	5	0	0	0	1	0	0	3	0	8	12	0	1	0	14	4	48
07:30 AM	0	0	0	4	3	0	0	0	1	2	0	2	0	6	14	0	1	0	22	6	61
07:45 AM	0	0	1	3	4	0	0	0	2	2	0	4	1	7	22	0	1	0	13	4	64
Total	0	0	1	7	14	0	0	0	4	4	0	12	1	21	60	0	3	0	50	14	191
08:00 AM	0	0	0	2	4	0	0	0	0	2	0	4	0	4	12	0	0	0	13	2	43
08:15 AM	0	0	0	2	0	0	0	0	2	1	0	4	0	3	23	0	0	1	4	2	42
08:30 AM	0	1	0	2	0	0	0	0	1	2	0	1	1	1	16	0	0	0	5	4	34
08:45 AM	1	0	0	1	0	0	0	0	1	0	0	5	0	2	13	0	0	0	1	2	26
Total	1	1	0	7	4	0	0	0	4	5	0	14	1	10	64	0	0	1	23	10	145
Grand Total	1	1	1	14	18	0	0	0	8	9	0	26	2	31	124	0	3	1	73	24	336
Apprch %	2.9	2.9	2.9	40	51.4	0	0	0	47.1	52.9	0	14.2	1.1	16.9	67.8	0	3	1	72.3	23.8	
Total %	0.3	0.3	0.3	4.2	5.4	0	0	0	2.4	2.7	0	7.7	0.6	9.2	36.9	0	0.9	0.3	21.7	7.1	

	Dorchester Avenue From North						Columbia Road From East						Dorchester Avenue From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	0	5	5	0	0	0	1	0	1	0	3	0	8	12	23	0	1	0	14	4	19	48
07:30 AM	0	0	0	4	3	7	0	0	0	1	2	3	0	2	0	6	14	22	0	1	0	22	6	29	61
07:45 AM	0	0	1	3	4	8	0	0	0	2	2	4	0	4	1	7	22	34	0	1	0	13	4	18	64
08:00 AM	0	0	0	2	4	6	0	0	0	0	2	2	0	4	0	4	12	20	0	0	0	13	2	15	43
Total Volume	0	0	1	9	16	26	0	0	0	4	6	10	0	13	1	25	60	99	0	3	0	62	16	81	216
% App. Total	0	0	3.8	34.6	61.5		0	0	0	40	60		0	13.1	1	25.3	60.6		0	3.7	0	76.5	19.8		
PHF	.000	.000	.250	.563	.800	.813	.000	.000	.000	.500	.750	.625	.000	.813	.250	.781	.682	.728	.000	.750	.000	.705	.667	.698	.844

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 P
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Groups Printed- Peds and Bikes

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	Peds EB	Peds WB	Thru	Left	Peds WB	Peds EB	Right	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	1	3	0	0	1	0	0	0	3	2	10
07:15 AM	0	0	0	0	3	0	0	1	0	0	4	0	8
07:30 AM	0	1	3	4	1	0	3	0	0	0	4	1	17
07:45 AM	0	0	2	0	1	0	0	0	0	0	1	0	4
Total	0	1	6	7	5	0	4	1	0	0	12	3	39
08:00 AM	0	0	1	1	1	0	0	0	0	0	4	2	9
08:15 AM	0	0	1	2	0	0	0	0	0	0	3	0	6
08:30 AM	0	1	0	2	2	0	0	0	0	0	2	1	8
08:45 AM	0	0	1	1	2	0	0	0	0	1	1	3	9
Total	0	1	3	6	5	0	0	0	0	1	10	6	32
Grand Total	0	2	9	13	10	0	4	1	0	1	22	9	71
Apprch %	0	8.3	37.5	54.2	66.7	0	26.7	6.7	0	3.1	68.8	28.1	
Total %	0	2.8	12.7	18.3	14.1	0	5.6	1.4	0	1.4	31	12.7	

	Boston Street From North					Boston Street From South					Enterprise Street From West					
Start Time	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Left	Peds WB	Peds EB	App. Total	Right	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:00 AM																
07:00 AM	0	0	1	3	4	0	0	1	0	1	0	0	3	2	5	10
07:15 AM	0	0	0	0	0	3	0	0	1	4	0	0	4	0	4	8
07:30 AM	0	1	3	4	8	1	0	3	0	4	0	0	4	1	5	17
07:45 AM	0	0	2	0	2	1	0	0	0	1	0	0	1	0	1	4
Total Volume	0	1	6	7	14	5	0	4	1	10	0	0	12	3	15	39
% App. Total	0	7.1	42.9	50		50	0	40	10		0	0	80	20		
PHF	.000	.250	.500	.438	.438	.417	.000	.333	.250	.625	.000	.000	.750	.375	.750	.574

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 L
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Boston Street From North					Howell Street From East					Boston Street From South					W. Howell Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	1	2	0	0	0	4	7	0	0	0	1	0	0	0	0	5	2	22
07:15 AM	0	0	0	0	1	0	0	0	1	7	0	1	0	0	0	0	0	0	1	2	13
07:30 AM	0	1	0	0	1	0	0	0	4	14	0	3	0	0	0	0	0	0	7	1	31
07:45 AM	0	0	0	1	2	0	0	0	6	7	0	1	0	0	0	0	0	0	7	0	24
Total	0	1	0	2	6	0	0	0	15	35	0	5	0	1	0	0	0	0	20	5	90
08:00 AM	0	1	0	3	6	0	0	0	4	12	0	0	0	1	0	0	0	0	12	0	39
08:15 AM	0	0	0	1	3	0	0	0	3	9	0	3	0	1	0	0	0	0	10	0	30
08:30 AM	0	0	0	1	3	0	0	0	1	8	0	1	0	0	0	0	0	0	4	1	19
08:45 AM	0	1	0	1	3	0	0	0	0	11	0	1	0	1	1	0	0	0	4	2	25
Total	0	2	0	6	15	0	0	0	8	40	0	5	0	3	1	0	0	0	30	3	113
Grand Total	0	3	0	8	21	0	0	0	23	75	0	10	0	4	1	0	0	0	50	8	203
Apprch %	0	9.4	0	25	65.6	0	0	0	23.5	76.5	0	66.7	0	26.7	6.7	0	0	0	86.2	13.8	
Total %	0	1.5	0	3.9	10.3	0	0	0	11.3	36.9	0	4.9	0	2	0.5	0	0	0	24.6	3.9	

	Boston Street From North						Howell Street From East						Boston Street From South						W. Howell Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:30 AM																									
07:30 AM	0	1	0	0	1	2	0	0	0	4	14	18	0	3	0	0	0	3	0	0	0	7	1	8	31
07:45 AM	0	0	0	1	2	3	0	0	0	6	7	13	0	1	0	0	0	1	0	0	0	7	0	7	24
08:00 AM	0	1	0	3	6	10	0	0	0	4	12	16	0	0	0	1	0	1	0	0	0	12	0	12	39
08:15 AM	0	0	0	1	3	4	0	0	0	3	9	12	0	3	0	1	0	4	0	0	0	10	0	10	30
Total Volume	0	2	0	5	12	19	0	0	0	17	42	59	0	7	0	2	0	9	0	0	0	36	1	37	124
% App. Total	0	10.5	0	26.3	63.2		0	0	0	28.8	71.2		0	77.8	0	22.2	0		0	0	0	97.3	2.7		
PHF	.000	.500	.000	.417	.500	.475	.000	.000	.000	.708	.750	.819	.000	.583	.000	.500	.000	.563	.000	.000	.000	.750	.250	.771	.795

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S:Boston Street
E/W:Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn AM
Site Code : 00804001
Start Date : 2/26/2015
Page No : 1

Groups Printed- Bicycles

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
Apprch %	0	100	0	0		0	0	0	0		0	100	0	0		0	0	100	0		
Total %	0	40	0	0	40	0	0	0	0	0	0	40	0	0	40	0	0	20	0	20	

	Boston Street From North					Washburn Street From East					Boston Street From South					Frontage Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	0	**3**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
% App. Total	0	100	0	0		0	0	0	0		0	100	0	0		0	0	100	0		
PHF	.000	.500	.000	.000	.500	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.000	.250	.417

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 E
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

Start Time	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							Int. Total
	Right	Bear Right	Thru	Left	Hard Left	Peds EB	Peds WB	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds SE B	Peds NW B	Hard Right	Right	Thru	Bear Left	Left	Peds SB	Peds NB	Right	Bear Right	Thru	Left	Hard Left	Peds WB	Peds EB	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds NW B	Peds SE B	Hard Right	Right	Thru	Bear Left	Left	Peds NB	Peds SB	
07:00 AM	0	0	0	0	0	17	12	0	1	0	0	0	10	26	0	0	0	0	0	4	12	0	0	2	0	0	2	4	0	0	0	0	0	12	1	0	0	0	0	0	28	5	136
07:15 AM	0	0	0	0	0	17	22	0	0	0	0	0	11	25	0	2	0	0	0	4	10	0	0	2	0	0	1	3	0	0	0	1	0	10	2	0	0	0	0	0	23	4	137
07:30 AM	0	1	0	0	0	8	14	0	0	0	0	0	10	32	0	0	0	0	0	3	8	0	0	0	0	0	1	0	0	0	0	0	1	11	0	0	0	1	0	0	46	8	144
07:45 AM	0	0	0	0	0	6	10	1	0	0	0	0	8	40	0	0	0	0	0	4	10	0	0	5	0	0	1	2	0	0	1	1	1	10	2	0	0	2	0	0	36	3	143
Total	0	1	0	0	0	48	58	1	1	0	0	0	39	123	0	2	0	0	0	15	40	0	0	9	0	0	5	9	0	0	1	2	2	43	5	0	0	3	0	0	133	20	560
08:00 AM	0	1	0	0	0	5	12	0	0	0	0	0	8	41	0	0	0	0	0	5	21	0	0	3	0	0	0	0	0	0	0	0	0	16	2	0	0	0	0	0	44	8	166
08:15 AM	0	0	0	0	0	9	17	0	0	0	0	0	5	39	0	0	0	0	0	2	17	0	0	8	0	0	0	1	0	0	1	0	0	16	2	0	0	1	0	1	46	2	167
08:30 AM	0	0	0	0	0	6	21	0	0	0	0	0	13	33	0	0	0	0	0	6	16	0	1	4	0	0	0	2	0	0	0	0	0	10	4	0	0	0	0	0	28	6	150
08:45 AM	0	1	0	0	0	6	11	0	0	0	0	0	2	35	0	0	0	0	0	3	11	0	0	5	0	0	0	0	0	0	0	1	0	13	2	0	0	0	0	0	29	3	122
Total	0	2	0	0	0	26	61	0	0	0	0	0	28	148	0	0	0	0	0	16	65	0	1	20	0	0	0	3	0	0	1	1	0	55	10	0	0	1	0	1	147	19	605
Grand Total	0	3	0	0	0	74	119	1	1	0	0	0	67	271	0	2	0	0	0	31	105	0	1	29	0	0	5	12	0	0	2	3	2	98	15	0	0	4	0	1	280	39	1165
Apprch %	0	1.6	0	0	0	37.8	60.7	0.3	0.3	0	0	0	19.7	79.7	0	1.4	0	0	0	22.5	76.1	0	2.1	61.7	0	0	10.6	25.5	0	0	1.7	2.5	1.7	81.7	12.5	0	0	1.2	0	0.3	86.4	12	
Total %	0	0.3	0	0	0	6.4	10.2	0.1	0.1	0	0	0	5.8	23.3	0	0.2	0	0	0	2.7	9	0	0.1	2.5	0	0	0.4	1	0	0	0.2	0.3	0.2	8.4	1.3	0	0	0.3	0	0.1	24	3.3	

Start Time	Dorchester Avenue From North								Dorchester Street From Northeast								Preble Street From East								Dorchester Avenue From South								Boston Street From Southwest								Southampton Street From West								Int. Tot
				Le				App. To	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds S	Peds N	App. To	Hard Right	Right	Thru	Bear Left	Left	Peds S	Peds N	App. To	Right	Bear Right	Thru	Left	Hard Left	Peds W	Peds E	App. To	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds N	Peds S	App. To	Hard Right	Right	Thru	Bear Left	Left	Peds N	Peds S	App. To	
07:45 AM								16								49								14								8								15								41	143
08:00 AM								18								49								26								3								18								52	166
08:15 AM								26								44								19								9								19								50	167
08:30 AM								27								46								22								7								14								34	150
Total Volume % App. Total								87								188								81								27								66								177	626
PHF	.0 0 0	.2 5 0	.0 0 0	.0 0 0	.0 0 0	.7 2 2	.7 1 4	.80 6	.2 5 0	.0 0 0	.0 0 0	.0 0 0	.0 0 0	.6 5 4	.9 3 3	.95 9	.0 0 0	.0 0 0	.0 0 0	.0 0 0	.0 0 0	.7 6 8	.7 2 2	.77 9	.0 0 0	.2 5 5	.6 2 5	.0 0 0	.0 0 0	.2 5 5	.6 2 5	.75 0	.0 0 0	.0 0 0	.5 5 3	.2 5 5	.2 1 3	.0 2 5	.0 0 0	.66 8	.0 0 0	.0 0 0	.3 7 5	.0 0 0	.2 5 7	.6 3 4	.5 9 7	.85 1	.83 7	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 F
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	3	14	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	28
07:15 AM	0	0	0	6	12	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	29
07:30 AM	0	0	0	3	29	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	42
07:45 AM	0	0	0	11	29	0	1	0	0	0	0	0	0	6	2	0	0	0	0	0	49
Total	0	0	0	23	84	0	1	0	0	0	0	0	0	27	13	0	0	0	0	0	148
08:00 AM	0	0	0	4	19	0	0	0	0	0	0	0	0	8	5	0	0	0	0	0	36
08:15 AM	0	0	0	1	10	0	0	0	0	0	0	0	0	6	2	0	3	0	0	0	22
08:30 AM	0	0	0	10	27	0	0	0	0	1	0	0	0	4	4	0	1	0	0	0	47
08:45 AM	0	0	0	7	20	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	37
Total	0	0	0	22	76	0	0	0	0	1	0	0	0	26	13	0	4	0	0	0	142
Grand Total	0	0	0	45	160	0	1	0	0	1	0	0	0	53	26	0	4	0	0	0	290
Apprch %	0	0	0	22	78	0	50	0	0	50	0	0	0	67.1	32.9	0	100	0	0	0	
Total %	0	0	0	15.5	55.2	0	0.3	0	0	0.3	0	0	0	18.3	9	0	1.4	0	0	0	

	I-93 Frontage Road From North						Southampton Street From East						I-93 NB Offramp From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	6	12	18	0	0	0	0	0	0	0	0	0	8	3	11	0	0	0	0	0	0	29
07:30 AM	0	0	0	3	29	32	0	0	0	0	0	0	0	0	0	5	5	10	0	0	0	0	0	0	42
07:45 AM	0	0	0	11	29	40	0	1	0	0	0	1	0	0	0	6	2	8	0	0	0	0	0	0	49
08:00 AM	0	0	0	4	19	23	0	0	0	0	0	0	0	0	0	8	5	13	0	0	0	0	0	0	36
Total Volume	0	0	0	24	89	113	0	1	0	0	0	1	0	0	0	27	15	42	0	0	0	0	0	0	156
% App. Total	0	0	0	21.2	78.8		0	100	0	0	0		0	0	0	64.3	35.7		0	0	0	0	0		
PHF	.000	.000	.000	.545	.767	.706	.000	.250	.000	.000	.000	.250	.000	.000	.000	.844	.750	.808	.000	.000	.000	.000	.000	.000	.796

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 K
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	

	I-93 Frontage Road From North						From East						Boston Street From South						Plaza Driveway From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	66.7	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.250	.375	.375

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 J
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	

	I-93 Frontage Road From North						I-93 Frontage Road From East						Plaza Drive From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:15 AM																									
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	100	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.250

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay AM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 1

Groups Printed- Bicycles

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	1	4	15	0	20	12	1	1	0	14	0	0	0	0	0	0	5	9	0	14	48
07:45 AM	2	7	16	0	25	12	1	0	0	13	0	0	0	0	0	0	3	1	0	4	42
Total	3	11	31	0	45	24	2	1	0	27	0	0	0	0	0	0	8	10	0	18	90
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
*** BREAK ***																					
Grand Total	3	11	32	0	46	24	2	1	0	27	0	1	0	0	1	0	8	10	0	18	92
Apprch %	6.5	23.9	69.6	0		88.9	7.4	3.7	0		0	100	0	0		0	44.4	55.6	0		
Total %	3.3	12	34.8	0	50	26.1	2.2	1.1	0	29.3	0	1.1	0	0	1.1	0	8.7	10.9	0	19.6	

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	4	15	0	20	**12**	**1**	**1**	0	**14**	0	0	0	0	0	0	**5**	**9**	0	**14**	**48**
07:45 AM	**2**	**7**	**16**	0	**25**	12	1	0	0	13	0	0	0	0	0	0	3	1	0	4	42
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	3	11	32	0	46	24	2	1	0	27	0	1	0	0	1	0	8	10	0	18	92
% App. Total	6.5	23.9	69.6	0		88.9	7.4	3.7	0		0	100	0	0		0	44.4	55.6	0		
PHF	.375	.393	.500	.000	.460	.500	.500	.250	.000	.482	.000	.250	.000	.000	.250	.000	.400	.278	.000	.321	.479

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 A
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	
Total %													

	Frontage Road SB From North					South Boston Bypass Road From East					Frontage Road SB From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 07:00 AM																
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 B
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Apprch %	0	0	0	0	0	0	0	0	33.3	66.7	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	33.3	66.7	0	0	0	0	0	0	0	0	0	0	

	Frontage Road NB From North						South Boston Bypass Road From East						Frontage Road NB From South						South Boston Bypass Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 08:00 AM																									
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	0	0	0	0		0	0	0	33.3	66.7		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DD
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	4	0	2	0	0	0	1	15	15	0	2	0	4	3	0	0	0	9	23	78
04:15 PM	0	7	0	2	0	0	0	0	18	10	0	3	0	3	2	0	0	0	11	22	78
04:30 PM	0	6	0	0	0	0	0	0	16	14	0	2	0	4	1	0	0	0	11	19	73
04:45 PM	0	6	0	1	1	0	0	0	9	14	0	4	0	4	2	0	1	0	13	10	65
Total	0	23	0	5	1	0	0	1	58	53	0	11	0	15	8	0	1	0	44	74	294
05:00 PM	0	6	0	1	0	0	0	0	17	12	0	7	1	1	1	0	0	0	8	20	74
05:15 PM	0	9	0	0	1	0	0	0	13	14	0	3	0	1	1	0	0	0	14	14	70
05:30 PM	0	9	0	0	0	0	0	0	5	9	0	4	1	2	2	0	0	0	9	6	47
05:45 PM	0	6	0	0	0	0	0	0	7	4	0	3	0	1	0	0	0	0	5	7	33
Total	0	30	0	1	1	0	0	0	42	39	0	17	2	5	4	0	0	0	36	47	224
Grand Total	0	53	0	6	2	0	0	1	100	92	0	28	2	20	12	0	1	0	80	121	518
Apprch %	0	86.9	0	9.8	3.3	0	0	0.5	51.8	47.7	0	45.2	3.2	32.3	19.4	0	0.5	0	39.6	59.9	
Total %	0	10.2	0	1.2	0.4	0	0	0.2	19.3	17.8	0	5.4	0.4	3.9	2.3	0	0.2	0	15.4	23.4	

	Massachusetts Avenue From North						Mass Ave Connector From East						Massachusetts Avenue From South						Melnea Cass Boulevard From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	4	0	2	0	6	0	0	1	15	15	31	0	2	0	4	3	9	0	0	0	9	23	32	78
04:15 PM	0	7	0	2	0	9	0	0	0	18	10	28	0	3	0	3	2	8	0	0	0	11	22	33	78
04:30 PM	0	6	0	0	0	6	0	0	0	16	14	30	0	2	0	4	1	7	0	0	0	11	19	30	73
04:45 PM	0	6	0	1	1	8	0	0	0	9	14	23	0	4	0	4	2	10	0	1	0	13	10	24	65
Total Volume	0	23	0	5	1	29	0	0	1	58	53	112	0	11	0	15	8	34	0	1	0	44	74	119	294
% App. Total	0	79.3	0	17.2	3.4		0	0	0.9	51.8	47.3		0	32.4	0	44.1	23.5		0	0.8	0	37	62.2		
PHF	.000	.821	.000	.625	.250	.806	.000	.000	.250	.806	.883	.903	.000	.688	.000	.938	.667	.850	.000	.250	.000	.846	.804	.902	.942

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CC
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	6	0	0	3	0	0	0	9	14	0	0	0	26	3	0	0	0	4	10	75
04:15 PM	0	5	0	6	1	0	0	0	16	10	0	2	0	15	7	0	0	0	2	6	70
04:30 PM	0	4	0	1	0	0	0	0	5	6	0	2	0	13	1	0	0	0	2	8	42
04:45 PM	0	2	0	0	2	0	0	0	1	10	0	5	1	14	10	0	0	0	7	12	64
Total	0	17	0	7	6	0	0	0	31	40	0	9	1	68	21	0	0	0	15	36	251
05:00 PM	0	6	0	0	2	0	1	0	4	6	0	3	0	25	5	0	0	0	2	9	63
05:15 PM	0	3	0	2	1	0	0	0	4	9	0	1	0	14	5	0	0	0	6	7	52
05:30 PM	0	8	0	0	0	0	0	0	0	5	0	1	0	7	4	1	0	0	2	4	32
05:45 PM	0	6	0	0	2	0	0	0	3	2	0	2	0	5	4	0	0	0	2	6	32
Total	0	23	0	2	5	0	1	0	11	22	0	7	0	51	18	1	0	0	12	26	179
Grand Total	0	40	0	9	11	0	1	0	42	62	0	16	1	119	39	1	0	0	27	62	430
Apprch %	0	66.7	0	15	18.3	0	1	0	40	59	0	9.1	0.6	68	22.3	1.1	0	0	30	68.9	
Total %	0	9.3	0	2.1	2.6	0	0.2	0	9.8	14.4	0	3.7	0.2	27.7	9.1	0.2	0	0	6.3	14.4	

	Massachusetts Avenue From North						Magazine Street From East						Massachusetts Avenue From South						Magazine Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	6	0	0	3	9	0	0	0	9	14	23	0	0	0	26	3	29	0	0	0	4	10	14	75
04:15 PM	0	5	0	6	1	12	0	0	0	16	10	26	0	2	0	15	7	24	0	0	0	2	6	8	70
04:30 PM	0	4	0	1	0	5	0	0	0	5	6	11	0	2	0	13	1	16	0	0	0	2	8	10	42
04:45 PM	0	2	0	0	2	4	0	0	0	1	10	11	0	5	1	14	10	30	0	0	0	7	12	19	64
Total Volume	0	17	0	7	6	30	0	0	0	31	40	71	0	9	1	68	21	99	0	0	0	15	36	51	251
% App. Total	0	56.7	0	23.3	20		0	0	0	43.7	56.3		0	9.1	1	68.7	21.2		0	0	0	29.4	70.6		
PHF	.000	.708	.000	.292	.500	.625	.000	.000	.000	.484	.714	.683	.000	.450	.250	.654	.525	.825	.000	.000	.000	.536	.750	.671	.837

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MM
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	2	0	1	4	0	0	0	14	3	0	0	0	0	0	0	0	0	2	4	30
04:15 PM	1	5	0	2	4	0	0	0	19	2	0	1	0	0	1	0	0	0	2	6	43
04:30 PM	1	5	0	1	2	0	0	0	9	7	1	2	0	0	0	0	0	0	2	6	36
04:45 PM	0	2	0	2	3	0	0	0	6	5	0	5	0	0	0	0	0	0	2	6	31
Total	2	14	0	6	13	0	0	0	48	17	1	8	0	0	1	0	0	0	8	22	140
05:00 PM	0	2	0	0	7	0	0	0	17	2	0	2	0	0	0	0	0	1	0	0	31
05:15 PM	1	6	0	2	1	0	0	0	12	2	0	1	0	0	0	0	0	0	0	6	31
05:30 PM	0	4	0	0	2	0	0	0	5	6	0	1	0	0	0	0	0	0	1	0	19
05:45 PM	0	4	0	1	1	0	0	0	4	1	0	2	0	0	0	0	0	0	0	1	14
Total	1	16	0	3	11	0	0	0	38	11	0	6	0	0	0	0	0	1	1	7	95
Grand Total	3	30	0	9	24	0	0	0	86	28	1	14	0	0	1	0	0	1	9	29	235
Apprch %	4.5	45.5	0	13.6	36.4	0	0	0	75.4	24.6	6.2	87.5	0	0	6.2	0	0	2.6	23.1	74.4	
Total %	1.3	12.8	0	3.8	10.2	0	0	0	36.6	11.9	0.4	6	0	0	0.4	0	0	0.4	3.8	12.3	

	Massachusetts Avenue From North						Newmarket Square From East						Massachusetts Avenue From South						Shirley Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	1	5	0	2	4	12	0	0	0	19	2	21	0	1	0	0	1	2	0	0	0	2	6	8	43
04:30 PM	1	5	0	1	2	9	0	0	0	9	7	16	1	2	0	0	0	3	0	0	0	2	6	8	36
04:45 PM	0	2	0	2	3	7	0	0	0	6	5	11	0	5	0	0	0	5	0	0	0	2	6	8	31
05:00 PM	0	2	0	0	7	9	0	0	0	17	2	19	0	2	0	0	0	2	0	0	1	0	0	1	31
Total Volume	2	14	0	5	16	37	0	0	0	51	16	67	1	10	0	0	1	12	0	0	1	6	18	25	141
% App. Total	5.4	37.8	0	13.5	43.2		0	0	0	76.1	23.9		8.3	83.3	0	0	8.3		0	0	4	24	72		
PHF	.500	.700	.000	.625	.571	.771	.000	.000	.000	.671	.571	.798	.250	.500	.000	.000	.250	.600	.000	.000	.250	.750	.750	.781	.820

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 NN
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
04:00 PM	5	0	0	0	0	0	3	0	0	0	0	0	8
04:15 PM	4	1	0	0	0	1	0	0	0	1	0	0	7
04:30 PM	3	3	0	0	0	0	1	2	0	3	0	1	13
04:45 PM	2	1	0	2	1	0	2	0	0	4	0	0	12
Total	14	5	0	2	1	1	6	2	0	8	0	1	40
05:00 PM	2	0	0	0	1	0	2	2	0	2	0	0	9
05:15 PM	5	1	0	1	0	0	2	2	0	1	0	1	13
05:30 PM	7	1	0	0	1	0	0	1	1	1	0	0	12
05:45 PM	3	0	0	0	0	0	0	0	0	2	0	0	5
Total	17	2	0	1	2	0	4	5	1	6	0	1	39
Grand Total	31	7	0	3	3	1	10	7	1	14	0	2	79
Apprch %	75.6	17.1	0	7.3	14.3	4.8	47.6	33.3	5.9	82.4	0	11.8	
Total %	39.2	8.9	0	3.8	3.8	1.3	12.7	8.9	1.3	17.7	0	2.5	

	Massachusetts Avenue From North					South Bay Center Driveway From East					Massachusetts Avenue From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:30 PM																
04:30 PM	3	3	0	0	6	0	0	1	2	3	0	3	0	1	4	13
04:45 PM	2	1	0	2	5	1	0	2	0	3	0	4	0	0	4	12
05:00 PM	2	0	0	0	2	1	0	2	2	5	0	2	0	0	2	9
05:15 PM	5	1	0	1	7	0	0	2	2	4	0	1	0	1	2	13
Total Volume	12	5	0	3	20	2	0	7	6	15	0	10	0	2	12	47
% App. Total	60	25	0	15		13.3	0	46.7	40		0	83.3	0	16.7		
PHF	.600	.417	.000	.375	.714	.500	.000	.875	.750	.750	.000	.625	.000	.500	.750	.904

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 BB
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	6	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	2	4	16
04:15 PM	0	6	0	2	3	0	0	0	2	1	0	1	0	0	0	0	0	0	1	9	25
04:30 PM	0	3	0	0	0	0	0	0	1	3	0	3	0	2	0	0	0	0	2	5	19
04:45 PM	0	2	0	1	1	0	0	0	5	5	0	4	0	0	0	0	0	0	3	5	26
Total	0	17	0	4	4	0	0	0	10	10	0	8	0	2	0	0	0	0	8	23	86
05:00 PM	0	0	0	0	0	0	0	0	5	1	0	0	0	2	0	0	0	0	0	3	11
05:15 PM	0	0	0	0	2	0	0	0	5	4	0	1	0	0	0	0	0	0	0	6	18
05:30 PM	0	0	0	0	0	0	0	0	2	4	0	0	0	2	0	0	0	0	0	4	12
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	2	3	8
Total	0	0	0	0	2	0	0	0	13	9	0	2	0	4	1	0	0	0	2	16	49
Grand Total	0	17	0	4	6	0	0	0	23	19	0	10	0	6	1	0	0	0	10	39	135
Apprch %	0	63	0	14.8	22.2	0	0	0	54.8	45.2	0	58.8	0	35.3	5.9	0	0	0	20.4	79.6	
Total %	0	12.6	0	3	4.4	0	0	0	17	14.1	0	7.4	0	4.4	0.7	0	0	0	7.4	28.9	

	Massachusetts Avenue From North						Allstate Road From East						Massachusetts Avenue From South						Driveway From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	6	0	1	0	7	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	2	4	6	16
04:15 PM	0	6	0	2	3	11	0	0	0	2	1	3	0	1	0	0	0	1	0	0	0	1	9	10	25
04:30 PM	0	3	0	0	0	3	0	0	0	1	3	4	0	3	0	2	0	5	0	0	0	2	5	7	19
04:45 PM	0	2	0	1	1	4	0	0	0	5	5	10	0	4	0	0	0	4	0	0	0	3	5	8	26
Total Volume	0	17	0	4	4	25	0	0	0	10	10	20	0	8	0	2	0	10	0	0	0	8	23	31	86
% App. Total	0	68	0	16	16		0	0	0	50	50		0	80	0	20	0		0	0	0	25.8	74.2		
PHF	.000	.708	.000	.500	.333	.568	.000	.000	.000	.500	.500	.500	.000	.500	.000	.250	.000	.500	.000	.000	.000	.667	.639	.775	.827

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 II
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	4
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	25	50	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	25	50	

	From North						Allstate Road From East						Plaza Drive From South						Allstate Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:15 PM																									
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	4	4
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		25	0	0	25	50		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500	.333	.333

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OO
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	Right	Left	Hard Left	Peds SB	Peds NB	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	Hard Right	Right	Thru	Peds WB	Peds EB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	2	0	2	0	2	0	0	0	2	0	0	9
05:00 PM	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	5
05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	0	0	1	1	0	0	0	0	2	0	0	0	0	1	0	0	0	4	0	0	9
Grand Total	0	0	1	1	0	0	0	0	3	2	0	2	0	3	0	0	0	6	0	0	18
Apprch %	0	0	50	50	0	0	0	0	60	40	0	40	0	60	0	0	0	100	0	0	
Total %	0	0	5.6	5.6	0	0	0	0	16.7	11.1	0	11.1	0	16.7	0	0	0	33.3	0	0	

	Massachusetts Avenue From North						Enterprise Street From East						Clapp Street From Southeast						Massachusetts Avenue From South						
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	App. Total	Right	Left	Hard Left	Peds SB	Peds NB	App. Total	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	App. Total	Hard Right	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:30 PM																									
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	3
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
05:00 PM	0	0	0	1	0	1	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2	0	0	2	5
05:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0	1	3
Total Volume	0	0	1	1	0	2	0	0	0	2	0	2	0	2	0	1	0	3	0	0	5	0	0	5	12
% App. Total	0	0	50	50	0		0	0	0	100	0		0	66.7	0	33.3	0		0	0	100	0	0		
PHF	.000	.000	.250	.250	.000	.500	.000	.000	.000	.250	.000	.250	.000	.500	.000	.250	.000	.750	.000	.000	.625	.000	.000	.625	.600

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

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Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	4	0	3	10	0	1	0	3	0	0	0	0	16	4	1	0	0	3	7	52
04:15 PM	1	2	0	7	7	0	1	0	2	1	0	0	0	7	4	0	0	0	5	2	39
04:30 PM	0	0	0	4	4	0	0	0	1	2	1	2	0	3	3	0	0	0	4	5	29
04:45 PM	0	0	0	1	2	0	0	0	1	1	0	0	0	1	4	0	1	0	6	3	20
Total	1	6	0	15	23	0	2	0	7	4	1	2	0	27	15	1	1	0	18	17	140
05:00 PM	0	1	0	2	3	0	0	0	0	1	0	0	0	12	3	0	0	0	4	7	33
05:15 PM	0	1	0	2	6	0	1	0	1	0	0	1	0	3	3	0	0	0	6	21	45
05:30 PM	1	4	0	4	6	0	1	0	1	0	0	0	0	6	1	0	1	1	6	4	36
05:45 PM	0	1	0	3	8	0	0	0	0	0	0	2	0	0	1	0	0	0	3	8	26
Total	1	7	0	11	23	0	2	0	2	1	0	3	0	21	8	0	1	1	19	40	140
Grand Total	2	13	0	26	46	0	4	0	9	5	1	5	0	48	23	1	2	1	37	57	280
Apprch %	2.3	14.9	0	29.9	52.9	0	22.2	0	50	27.8	1.3	6.5	0	62.3	29.9	1	2	1	37.8	58.2	
Total %	0.7	4.6	0	9.3	16.4	0	1.4	0	3.2	1.8	0.4	1.8	0	17.1	8.2	0.4	0.7	0.4	13.2	20.4	

	Massachusetts Avenue From North						Boston Street From East						Columbia Road From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	4	0	3	10	17	0	1	0	3	0	4	0	0	0	16	4	20	1	0	0	3	7	11	52
04:15 PM	1	2	0	7	7	17	0	1	0	2	1	4	0	0	0	7	4	11	0	0	0	5	2	7	39
04:30 PM	0	0	0	4	4	8	0	0	0	1	2	3	1	2	0	3	3	9	0	0	0	4	5	9	29
04:45 PM	0	0	0	1	2	3	0	0	0	1	1	2	0	0	0	1	4	5	0	1	0	6	3	10	20
Total Volume	1	6	0	15	23	45	0	2	0	7	4	13	1	2	0	27	15	45	1	1	0	18	17	37	140
% App. Total	2.2	13.3	0	33.3	51.1		0	15.4	0	53.8	30.8		2.2	4.4	0	60	33.3		2.7	2.7	0	48.6	45.9		
PHF	.250	.375	.000	.536	.575	.662	.000	.500	.000	.583	.500	.813	.250	.250	.000	.422	.938	.563	.250	.250	.000	.750	.607	.841	.673

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HH
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	1	0	0	0	0	0	0	0	2	0	0	0	12	4	0	0	0	2	6	27
04:15 PM	0	5	0	2	4	0	0	0	3	1	0	0	0	11	5	0	0	0	1	6	38
04:30 PM	0	1	0	1	1	0	1	0	0	2	0	0	0	19	5	0	0	0	1	3	34
04:45 PM	0	2	0	4	0	0	0	0	0	2	0	0	0	14	5	0	0	0	4	2	33
Total	0	9	0	7	5	0	1	0	3	7	0	0	0	56	19	0	0	0	8	17	132
05:00 PM	0	2	0	1	1	0	0	0	2	4	0	1	0	13	5	0	2	0	0	2	33
05:15 PM	0	2	0	4	3	0	0	0	1	4	0	1	0	21	9	0	0	0	3	5	53
05:30 PM	0	0	0	2	1	0	0	1	5	1	0	0	0	23	8	0	0	0	4	3	48
05:45 PM	0	6	0	1	1	0	1	1	3	4	0	0	0	17	9	0	2	0	3	3	51
Total	0	10	0	8	6	0	1	2	11	13	0	2	0	74	31	0	4	0	10	13	185
Grand Total	0	19	0	15	11	0	2	2	14	20	0	2	0	130	50	0	4	0	18	30	317
Apprch %	0	42.2	0	33.3	24.4	0	5.3	5.3	36.8	52.6	0	1.1	0	71.4	27.5	0	7.7	0	34.6	57.7	
Total %	0	6	0	4.7	3.5	0	0.6	0.6	4.4	6.3	0	0.6	0	41	15.8	0	1.3	0	5.7	9.5	

	Dorchester Avenue From North						Columbia Road From East						Dorchester Avenue From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 05:00 PM																									
05:00 PM	0	2	0	1	1	4	0	0	0	2	4	6	0	1	0	13	5	19	0	2	0	0	2	4	33
05:15 PM	0	2	0	4	3	9	0	0	0	1	4	5	0	1	0	21	9	31	0	0	0	3	5	8	53
05:30 PM	0	0	0	2	1	3	0	0	1	5	1	7	0	0	0	23	8	31	0	0	0	4	3	7	48
05:45 PM	0	6	0	1	1	8	0	1	1	3	4	9	0	0	0	17	9	26	0	2	0	3	3	8	51
Total Volume	0	10	0	8	6	24	0	1	2	11	13	27	0	2	0	74	31	107	0	4	0	10	13	27	185
% App. Total	0	41.7	0	33.3	25		0	3.7	7.4	40.7	48.1		0	1.9	0	69.2	29		0	14.8	0	37	48.1		
PHF	.000	.417	.000	.500	.500	.667	.000	.250	.500	.550	.813	.750	.000	.500	.000	.804	.861	.863	.000	.500	.000	.625	.650	.844	.873

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PP
Site Code : 804
Start Date : 11/20/2014
Page No : 1

Groups Printed- Peds and Bikes

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	Peds EB	Peds WB	Thru	Left	Peds WB	Peds EB	Right	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	2	1	0	0	0	0	1	0	0	0	0	4
04:15 PM	0	1	3	0	0	0	1	1	0	0	0	3	9
04:30 PM	0	1	0	2	0	0	0	0	0	0	0	3	6
04:45 PM	0	0	0	1	0	0	0	0	0	0	2	8	11
Total	0	4	4	3	0	0	1	2	0	0	2	14	30
05:00 PM	0	1	1	0	0	0	0	1	0	0	0	2	5
05:15 PM	0	2	2	1	0	0	0	0	0	0	3	6	14
05:30 PM	0	1	4	1	2	0	0	0	0	0	3	5	16
05:45 PM	0	1	0	0	0	0	0	1	0	0	0	9	11
Total	0	5	7	2	2	0	0	2	0	0	6	22	46
Grand Total	0	9	11	5	2	0	1	4	0	0	8	36	76
Apprch %	0	36	44	20	28.6	0	14.3	57.1	0	0	18.2	81.8	
Total %	0	11.8	14.5	6.6	2.6	0	1.3	5.3	0	0	10.5	47.4	

	Boston Street From North					Boston Street From South					Enterprise Street From West					
Start Time	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Left	Peds WB	Peds EB	App. Total	Right	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:45 PM																
04:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	2	8	10	11
05:00 PM	0	1	1	0	2	0	0	0	1	1	0	0	0	2	2	5
05:15 PM	0	2	2	1	5	0	0	0	0	0	0	0	3	6	9	14
05:30 PM	0	1	4	1	6	2	0	0	0	2	0	0	3	5	8	16
Total Volume	0	4	7	3	14	2	0	0	1	3	0	0	8	21	29	46
% App. Total	0	28.6	50	21.4		66.7	0	0	33.3		0	0	27.6	72.4		
PHF	.000	.500	.438	.750	.583	.250	.000	.000	.250	.375	.000	.000	.667	.656	.725	.719

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

N/S: Boston Street
E/W: Frontage Road/Washburn Street
Boston, MA

File Name : 804 Boston-Washburn PM
Site Code : 00804002
Start Date : 2/26/2015
Page No : 1

Groups Printed- Bicycles

	Boston Street From North				Washburn Street From East				Boston Street From South				Frontage Road From West				
Start Time	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Int. Total
04:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5
Apprch %	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	
Total %	0	80	0	0	0	0	0	0	0	20	0	0	0	0	0	0	

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EE
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	Peds EB	Peds WB	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds SE B	Peds NW B	Hard Right	Right	Thru	Bear Left	Left	Peds SB	Peds NB	Right	Bear Right	Thru	Left	Hard Left	Peds WB	Peds EB	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds NW B	Peds SE B	Hard Right	Right	Thru	Bear Left	Left	Peds NB	Peds SB	Int. Total
04:00 PM	2	1	2	0	0	13	5	0	0	0	0	0	26	15	0	0	0	0	0	24	10	0	0	0	0	0	7	5	0	0	0	0	0	7	6	0	0	0	0	0	13	17	153
04:15 PM	0	1	1	0	0	13	13	0	0	0	2	0	34	16	0	0	0	0	0	21	18	0	0	0	0	0	5	4	0	0	0	0	0	8	12	0	0	1	0	0	26	25	202
04:30 PM	0	0	0	0	0	20	18	0	0	0	0	0	29	16	0	0	1	0	0	15	9	0	0	0	0	0	4	3	0	0	0	0	0	4	11	0	0	0	0	0	11	24	165
04:45 PM	1	0	1	0	0	14	32	0	0	0	0	0	32	11	0	0	1	0	0	16	32	0	0	0	0	0	4	4	0	0	0	0	0	3	15	0	0	0	1	0	11	34	212
Total	3	2	4	0	0	60	68	0	0	0	2	0	121	60	0	0	2	0	0	76	69	0	0	0	0	0	20	16	0	0	0	0	0	22	44	0	0	1	1	0	61	100	732
05:00 PM	0	0	0	0	0	8	5	0	0	0	0	0	17	18	0	1	0	0	0	9	10	0	0	1	0	0	2	1	0	0	0	0	0	4	2	0	0	0	0	0	11	14	103
05:15 PM	0	1	0	0	0	20	8	0	0	0	0	0	57	18	0	0	0	0	0	15	8	0	0	2	0	0	2	5	0	0	0	0	0	4	14	0	0	0	0	0	10	35	199
05:30 PM	0	0	1	0	0	6	16	0	0	0	0	0	18	24	0	0	0	0	0	11	18	0	0	0	0	0	1	5	0	0	0	0	0	3	7	0	0	0	0	0	13	30	153
05:45 PM	0	0	3	0	0	14	7	0	0	0	0	0	36	9	0	0	0	0	0	9	4	0	0	0	0	0	5	1	0	0	0	0	0	10	10	0	0	4	0	0	18	29	159
Total	0	1	4	0	0	48	36	0	0	0	0	0	128	69	0	1	0	0	0	44	40	0	0	3	0	0	10	12	0	0	0	0	0	21	33	0	0	4	0	0	52	106	614
Grand Total	3	3	8	0	0	108	104	0	0	0	2	0	249	129	0	1	2	0	0	120	109	0	0	3	0	0	30	28	0	0	0	0	0	43	77	0	0	5	1	0	113	206	1348
Apprch %	1.3	1.3	3.5	0	0	47.8	46	0	0	0	0.5	0	65.5	33.9	0	0.4	0.9	0	0	51.7	47	0	0	4.9	0	0	49.2	45.9	0	0	0	0	0	35.8	64.2	0	0	1.5	0.3	0	34.6	63.6	
Total %	0.2	0.2	0.6	0	0	8	7.7	0	0	0	0.1	0	18.5	9.6	0	0.1	0.1	0	0	8.9	8.1	0	0	0.2	0	0	2.2	2.1	0	0	0	0	0	3.2	5.7	0	0	0.4	0.1	0	8.4	15.5	

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time				Le			App. To	Hard Rign	Bear Right	Thru	Bear Left	Hard Left	Peds N	Peds E	App. To	Hard Right	Right	Thru	Bear Left	Left	Peds S	Peds W	App. To	Right	Bear Right	Thru	Left	Hard Left	Peds W	Peds E	App. To	Hard Rign	Bear Right	Thru	Bear Left	Hard Left	Peds N	Peds S	App. To	Hard Rig	Right	Thru	Bear Left	Left	Peds N	Peds S	App. To	Int. Tot
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																											
Peak Hour for Entire Intersection Begins at 04:00 PM																																											
04:00 PM							23							41							34							12							13							30	153
04:15 PM							28							54							39							9							20							52	202
04:30 PM							38							45							25							7							15							35	165
04:45 PM							48							43							49							8							18							46	212
Total Volume % App. Total							137							183							147							36							66							163	732
PHF	.37	.50	.50	.00	.00	.70	.53	.71	.00	.00	.00	.25	.00	.69	.83	.64	.00	.00	.00	.50	.38	.79	.75	.00	.00	.00	.00	.00	.70	.68	.75	.00	.00	.00	.00	.00	.75	.00	.00	.00	.00	.00	.63	.82	.00	.00	.00	.00	.00	.00	.50	.78	.86
	.75	.00	.00	.00	.00	.00	.25		.00	.00	.00	.50	.00	.90	.33		.00	.00	.00	.00	.00	.93		.00	.00	.00	.00	.00	.10		.00	.00	.00	.00	.00	.83		.00	.00	.00	.00	.00	.83		.00	.00	.00	.00	.00	.75		.00	.00	.00	.00	.00	.73	
	.00	.00	.00	.00	.00	.00	.31		.00	.00	.00	.00	.00	.38	.00		.00	.00	.00	.00	.00	.29		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00		.00	.00	.00	.00	.00	.00	

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FF
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	18	18	0	1	0	1	0	0	0	0	10	12	0	0	0	0	0	60
04:15 PM	0	0	0	20	12	0	0	0	0	0	0	0	0	6	9	0	1	0	0	0	48
04:30 PM	0	0	0	24	3	0	0	0	2	0	0	0	0	13	9	0	0	0	0	0	51
04:45 PM	0	0	0	7	9	0	2	0	0	0	0	0	0	11	13	0	2	0	0	0	44
Total	0	0	0	69	42	0	3	0	3	0	0	0	0	40	43	0	3	0	0	0	203
05:00 PM	0	0	0	26	1	0	0	0	0	0	0	0	0	4	4	0	2	0	0	0	37
05:15 PM	0	0	0	19	6	0	1	0	0	0	0	0	0	16	9	0	1	0	0	0	52
05:30 PM	0	0	0	11	8	0	3	0	0	0	0	0	0	6	7	0	0	0	0	0	35
05:45 PM	0	0	0	6	4	0	0	0	0	0	0	0	0	7	8	0	6	0	0	0	31
Total	0	0	0	62	19	0	4	0	0	0	0	0	0	33	28	0	9	0	0	0	155
Grand Total	0	0	0	131	61	0	7	0	3	0	0	0	0	73	71	0	12	0	0	0	358
Apprch %	0	0	0	68.2	31.8	0	70	0	30	0	0	0	0	50.7	49.3	0	100	0	0	0	
Total %	0	0	0	36.6	17	0	2	0	0.8	0	0	0	0	20.4	19.8	0	3.4	0	0	0	

	I-93 Frontage Road From North						Southampton Street From East						I-93 NB Offramp From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	0	0	18	18	36	0	1	0	1	0	2	0	0	0	10	12	22	0	0	0	0	0	0	60
04:15 PM	0	0	0	20	12	32	0	0	0	0	0	0	0	0	0	6	9	15	0	1	0	0	0	1	48
04:30 PM	0	0	0	24	3	27	0	0	0	2	0	2	0	0	0	13	9	22	0	0	0	0	0	0	51
04:45 PM	0	0	0	7	9	16	0	2	0	0	0	2	0	0	0	11	13	24	0	2	0	0	0	2	44
Total Volume	0	0	0	69	42	111	0	3	0	3	0	6	0	0	0	40	43	83	0	3	0	0	0	3	203
% App. Total	0	0	0	62.2	37.8		0	50	0	50	0		0	0	0	48.2	51.8		0	100	0	0	0		
PHF	.000	.000	.000	.719	.583	.771	.000	.375	.000	.375	.000	.750	.000	.000	.000	.769	.827	.865	.000	.375	.000	.000	.000	.375	.846

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KK
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Driveway From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Apprch %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	I-93 Frontage Road From North						From East						Boston Street From South						Plaza Driveway From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:45 PM																									
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJ
Site Code : 804
Start Date : 11/13/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	

	I-93 Frontage Road From North						I-93 Frontage Road From East						Plaza Drive From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:45 PM																									
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.250

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay PM
Site Code : 00804001
Start Date : 11/20/2014
Page No : 1

Groups Printed- Bicycles

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	2	0	2	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
Apprch %	0	0	100	0		100	0	0	0		0	0	0	0		0	0	0	0		
Total %	0	0	33.3	0	33.3	66.7	0	0	0	66.7	0	0	0	0	0	0	0	0	0	0	

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	**2**	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	2	0	2	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
% App. Total	0	0	100	0		100	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.250	.000	.250	.500	.000	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 AA
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	
Total %													

	Frontage Road SB From North					South Boston Bypass Road From East					Frontage Road SB From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:00 PM																
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 BB
Site Code : 804
Start Date : 4/16/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	2	3	0	1	0	0	0	0	0	0	0	0	6
Apprch %	0	0	0	0	0	0	0	0	40	60	0	100	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	33.3	50	0	16.7	0	0	0	0	0	0	0	0	

	Frontage Road NB From North						South Boston Bypass Road From East						Frontage Road NB From South						South Boston Bypass Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 04:00 PM																									
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	1	3	4	0	1	0	0	0	1	0	0	0	0	0	0	5
% App. Total	0	0	0	0	0		0	0	0	25	75		0	100	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.375	.500	.000	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.625

N/S: Massachusetts Avenue
E/W: Mass Ave Connector/Melnea Cass Blvd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 DDD
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Mass Ave Connector From East					Massachusetts Avenue From South					Melnea Cass Boulevard From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	2	0	1	0	0	0	0	6	31	0	3	0	2	1	0	0	0	7	10	63
11:15 AM	0	3	0	2	1	0	0	0	8	9	0	2	4	0	1	0	0	0	11	9	50
11:30 AM	0	10	0	0	1	0	0	0	4	14	0	1	0	0	0	0	0	0	3	10	43
11:45 AM	0	1	0	0	0	0	0	0	12	8	0	5	0	2	1	0	0	0	10	4	43
Total	0	16	0	3	2	0	0	0	30	62	0	11	4	4	3	0	0	0	31	33	199
12:00 PM	0	0	0	0	0	0	0	0	5	6	0	2	0	0	0	0	0	0	10	8	31
12:15 PM	0	0	0	0	0	0	0	0	3	19	2	6	0	0	1	0	0	0	4	3	38
12:30 PM	0	2	0	0	0	0	0	0	7	9	0	2	0	2	1	0	0	0	4	2	29
12:45 PM	0	2	0	0	0	0	0	0	19	11	0	4	0	4	3	0	0	0	6	7	56
Total	0	4	0	0	0	0	0	0	34	45	2	14	0	6	5	0	0	0	24	20	154
Grand Total	0	20	0	3	2	0	0	0	64	107	2	25	4	10	8	0	0	0	55	53	353
Apprch %	0	80	0	12	8	0	0	0	37.4	62.6	4.1	51	8.2	20.4	16.3	0	0	0	50.9	49.1	
Total %	0	5.7	0	0.8	0.6	0	0	0	18.1	30.3	0.6	7.1	1.1	2.8	2.3	0	0	0	15.6	15	

	Massachusetts Avenue From North						Mass Ave Connector From East						Massachusetts Avenue From South						Melnea Cass Boulevard From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:00 AM																									
11:00 AM	0	2	0	1	0	3	0	0	0	6	31	37	0	3	0	2	1	6	0	0	0	7	10	17	63
11:15 AM	0	3	0	2	1	6	0	0	0	8	9	17	0	2	4	0	1	7	0	0	0	11	9	20	50
11:30 AM	0	10	0	0	1	11	0	0	0	4	14	18	0	1	0	0	0	1	0	0	0	3	10	13	43
11:45 AM	0	1	0	0	0	1	0	0	0	12	8	20	0	5	0	2	1	8	0	0	0	10	4	14	43
Total Volume	0	16	0	3	2	21	0	0	0	30	62	92	0	11	4	4	3	22	0	0	0	31	33	64	199
% App. Total	0	76.2	0	14.3	9.5		0	0	0	32.6	67.4		0	50	18.2	18.2	13.6		0	0	0	48.4	51.6		
PHF	.000	.400	.000	.375	.500	.477	.000	.000	.000	.625	.500	.622	.000	.550	.250	.500	.750	.688	.000	.000	.000	.705	.825	.800	.790

N/S: Massachusetts Avenue
E/W: Magazine Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 CCC
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Magazine Street From East					Massachusetts Avenue From South					Magazine Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	1	0	0	0	0	0	0	9	8	0	2	0	0	2	0	0	0	1	4	27
11:15 AM	0	2	0	0	1	0	0	0	3	7	0	1	0	1	0	0	0	0	4	4	23
11:30 AM	4	6	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	4	20
11:45 AM	0	0	0	0	1	0	0	0	5	3	0	4	0	1	0	0	0	0	4	2	20
Total	4	9	0	0	2	0	0	0	18	23	0	7	0	2	2	0	0	0	9	14	90
12:00 PM	0	3	0	0	0	0	0	0	4	6	0	1	0	0	1	0	0	0	4	1	20
12:15 PM	1	0	0	0	0	0	0	0	5	9	0	2	0	0	0	0	0	0	1	4	22
12:30 PM	0	6	0	0	0	0	0	0	5	4	0	2	0	0	2	0	0	0	4	2	25
12:45 PM	0	2	0	0	0	0	0	0	2	5	0	2	0	0	1	0	0	0	5	3	20
Total	1	11	0	0	0	0	0	0	16	24	0	7	0	0	4	0	0	0	14	10	87
Grand Total	5	20	0	0	2	0	0	0	34	47	0	14	0	2	6	0	0	0	23	24	177
Apprch %	18.5	74.1	0	0	7.4	0	0	0	42	58	0	63.6	0	9.1	27.3	0	0	0	48.9	51.1	
Total %	2.8	11.3	0	0	1.1	0	0	0	19.2	26.6	0	7.9	0	1.1	3.4	0	0	0	13	13.6	

	Massachusetts Avenue From North						Magazine Street From East						Massachusetts Avenue From South						Magazine Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:00 AM																									
11:00 AM	0	1	0	0	0	1	0	0	0	9	8	17	0	2	0	0	2	4	0	0	0	1	4	5	27
11:15 AM	0	2	0	0	1	3	0	0	0	3	7	10	0	1	0	1	0	2	0	0	0	4	4	8	23
11:30 AM	4	6	0	0	0	10	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	4	4	20
11:45 AM	0	0	0	0	1	1	0	0	0	5	3	8	0	4	0	1	0	5	0	0	0	4	2	6	20
Total Volume	4	9	0	0	2	15	0	0	0	18	23	41	0	7	0	2	2	11	0	0	0	9	14	23	90
% App. Total	26.7	60	0	0	13.3		0	0	0	43.9	56.1		0	63.6	0	18.2	18.2		0	0	0	39.1	60.9		
PHF	.250	.375	.000	.000	.500	.375	.000	.000	.000	.500	.719	.603	.000	.438	.000	.500	.250	.550	.000	.000	.000	.563	.875	.719	.833

N/S: Massachusetts Avenue
E/W: Newmarket Square/ Shirley Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 MMM
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Newmarket Square From East					Massachusetts Avenue From South					Shirley Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	1	0	6	6	0	0	0	13	15	1	2	0	0	0	0	0	0	5	4	53
11:15 AM	0	2	0	3	1	0	0	0	8	5	2	1	0	0	0	0	0	0	4	6	32
11:30 AM	0	5	0	7	3	0	0	0	4	6	0	0	0	0	0	0	0	0	3	4	32
11:45 AM	0	2	0	3	0	0	0	0	10	4	0	2	0	0	0	0	0	0	3	1	25
Total	0	10	0	19	10	0	0	0	35	30	3	5	0	0	0	0	0	0	15	15	142
12:00 PM	0	1	0	2	2	0	0	0	12	10	1	0	0	0	0	0	0	1	1	3	33
12:15 PM	0	0	0	4	2	0	0	0	10	7	0	2	0	1	0	0	0	0	4	2	32
12:30 PM	0	0	0	1	2	0	0	0	5	1	0	2	0	0	0	0	0	0	5	4	20
12:45 PM	0	0	0	1	1	0	0	0	15	8	0	1	0	0	0	0	0	0	3	1	30
Total	0	1	0	8	7	0	0	0	42	26	1	5	0	1	0	0	0	1	13	10	115
Grand Total	0	11	0	27	17	0	0	0	77	56	4	10	0	1	0	0	0	1	28	25	257
Apprch %	0	20	0	49.1	30.9	0	0	0	57.9	42.1	26.7	66.7	0	6.7	0	0	0	1.9	51.9	46.3	
Total %	0	4.3	0	10.5	6.6	0	0	0	30	21.8	1.6	3.9	0	0.4	0	0	0	0.4	10.9	9.7	

	Massachusetts Avenue From North						Newmarket Square From East						Massachusetts Avenue From South						Shirley Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:00 AM																									
11:00 AM	0	1	0	6	6	13	0	0	0	13	15	28	1	2	0	0	0	3	0	0	0	5	4	9	53
11:15 AM	0	2	0	3	1	6	0	0	0	8	5	13	2	1	0	0	0	3	0	0	0	4	6	10	32
11:30 AM	0	5	0	7	3	15	0	0	0	4	6	10	0	0	0	0	0	0	0	0	0	3	4	7	32
11:45 AM	0	2	0	3	0	5	0	0	0	10	4	14	0	2	0	0	0	2	0	0	0	3	1	4	25
Total Volume	0	10	0	19	10	39	0	0	0	35	30	65	3	5	0	0	0	8	0	0	0	15	15	30	142
% App. Total	0	25.6	0	48.7	25.6		0	0	0	53.8	46.2		37.5	62.5	0	0	0		0	0	0	50	50		
PHF	.000	.500	.000	.679	.417	.650	.000	.000	.000	.673	.500	.580	.375	.625	.000	.000	.000	.667	.000	.000	.000	.750	.625	.750	.670

N/S: Massachusetts Avenue
E: South Bay Center Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 NNN
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North				South Bay Center Driveway From East				Massachusetts Avenue From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
11:00 AM	1	0	1	0	1	0	3	2	0	3	0	0	11
11:15 AM	2	0	0	1	1	0	1	1	0	1	0	0	7
11:30 AM	2	2	1	0	0	0	0	0	0	0	0	1	6
11:45 AM	2	0	0	0	0	0	3	1	0	1	0	0	7
Total	7	2	2	1	2	0	7	4	0	5	0	1	31
12:00 PM	2	1	0	0	0	0	3	1	1	1	0	0	9
12:15 PM	0	0	0	0	0	0	0	1	0	3	0	0	4
12:30 PM	2	2	0	0	0	0	3	0	1	2	0	0	10
12:45 PM	1	1	0	0	0	0	0	0	0	1	0	2	5
Total	5	4	0	0	0	0	6	2	2	7	0	2	28
Grand Total	12	6	2	1	2	0	13	6	2	12	0	3	59
Apprch %	57.1	28.6	9.5	4.8	9.5	0	61.9	28.6	11.8	70.6	0	17.6	
Total %	20.3	10.2	3.4	1.7	3.4	0	22	10.2	3.4	20.3	0	5.1	

	Massachusetts Avenue From North					South Bay Center Driveway From East					Massachusetts Avenue From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 11:00 AM																
11:00 AM	1	0	1	0	2	1	0	3	2	6	0	3	0	0	3	11
11:15 AM	2	0	0	1	3	1	0	1	1	3	0	1	0	0	1	7
11:30 AM	2	2	1	0	5	0	0	0	0	0	0	0	0	1	1	6
11:45 AM	2	0	0	0	2	0	0	3	1	4	0	1	0	0	1	7
Total Volume	7	2	2	1	12	2	0	7	4	13	0	5	0	1	6	31
% App. Total	58.3	16.7	16.7	8.3		15.4	0	53.8	30.8		0	83.3	0	16.7		
PHF	.875	.250	.500	.250	.600	.500	.000	.583	.500	.542	.000	.417	.000	.250	.500	.705

N/S: Massachusetts Avenue
E/W: Allstate Road/ Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 BBB
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Allstate Road From East					Massachusetts Avenue From South					Driveway From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	0	5
11:15 AM	0	1	0	2	0	0	0	0	3	0	0	1	0	0	0	0	0	0	2	3	12
11:30 AM	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	2	7
11:45 AM	0	2	1	2	0	0	0	0	0	2	0	1	0	0	0	0	0	0	5	1	14
Total	0	4	1	4	0	0	0	0	3	5	0	5	0	0	0	0	0	0	10	6	38
12:00 PM	0	0	0	0	0	0	0	0	4	3	0	2	0	0	0	0	0	0	1	2	12
12:15 PM	0	0	0	1	1	0	0	0	1	10	0	3	0	0	0	0	0	0	8	0	24
12:30 PM	0	0	0	0	0	0	0	0	2	3	0	2	0	0	0	0	0	0	1	0	8
12:45 PM	0	1	0	2	0	0	0	0	0	4	0	1	0	0	0	0	0	0	3	0	11
Total	0	1	0	3	1	0	0	0	7	20	0	8	0	0	0	0	0	0	13	2	55
Grand Total	0	5	1	7	1	0	0	0	10	25	0	13	0	0	0	0	0	0	23	8	93
Apprch %	0	35.7	7.1	50	7.1	0	0	0	28.6	71.4	0	100	0	0	0	0	0	0	74.2	25.8	
Total %	0	5.4	1.1	7.5	1.1	0	0	0	10.8	26.9	0	14	0	0	0	0	0	0	24.7	8.6	

	Massachusetts Avenue From North						Allstate Road From East						Massachusetts Avenue From South						Driveway From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:45 AM																									
11:45 AM	0	2	1	2	0	5	0	0	0	0	2	2	0	1	0	0	0	1	0	0	0	5	1	6	14
12:00 PM	0	0	0	0	0	0	0	0	0	4	3	7	0	2	0	0	0	2	0	0	0	1	2	3	12
12:15 PM	0	0	0	1	1	2	0	0	0	1	10	11	0	3	0	0	0	3	0	0	0	8	0	8	24
12:30 PM	0	0	0	0	0	0	0	0	0	2	3	5	0	2	0	0	0	2	0	0	0	1	0	1	8
Total Volume	0	2	1	3	1	7	0	0	0	7	18	25	0	8	0	0	0	8	0	0	0	15	3	18	58
% App. Total	0	28.6	14.3	42.9	14.3		0	0	0	28	72		0	100	0	0	0		0	0	0	83.3	16.7		
PHF	.000	.250	.250	.375	.250	.350	.000	.000	.000	.438	.450	.568	.000	.667	.000	.000	.000	.667	.000	.000	.000	.469	.375	.563	.604

S: Plaza Drive
E/W: Allstate Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 III
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	From North					Allstate Road From East					Plaza Drive From South					Allstate Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0	0	33.3	33.3	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0	0	33.3	33.3	

	From North						Allstate Road From East						Plaza Drive From South						Allstate Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:30 AM																									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	3
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		33.3	0	0	33.3	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250	.375	.375

N/S: Massachusetts Avenue
E/SE: Enterprise Street/ Clapp Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 OOO
Site Code : 804
Start Date : 11/22/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Enterprise Street From East					Clapp Street From Southeast					Massachusetts Avenue From South					
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	Right	Left	Hard Left	Peds SB	Peds NB	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	Hard Right	Right	Thru	Peds WB	Peds EB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	5
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
12:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Total	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0	7
Grand Total	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	6	0	0	12
Apprch %	66.7	0	33.3	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	0	0	
Total %	16.7	0	8.3	0	0	0	0	0	0	0	0	0	0	0	25	0	0	50	0	0	

	Massachusetts Avenue From North						Enterprise Street From East						Clapp Street From Southeast						Massachusetts Avenue From South						
Start Time	Thru	Bear Left	Left	Peds EB	Peds WB	App. Total	Right	Left	Hard Left	Peds SB	Peds NB	App. Total	Hard Right	Bear Right	Hard Left	Peds SWB	Peds NEB	App. Total	Hard Right	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:30 AM																									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
11:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	3	0	0	4	0	0	4	8
% App. Total	100	0	0	0	0		0	0	0	0	0		0	0	0	0	100		0	0	100	0	0		
PHF	.250	.000	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.375	.000	.000	.500	.000	.000	.500	.667

N/S: Massachusetts Ave/Columbia Road
E/W: Boston Street/ Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 AAA
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Massachusetts Avenue From North					Boston Street From East					Columbia Road From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	1	0	0	7	2	0	0	0	2	0	0	0	0	4	1	0	0	0	3	2	22
11:15 AM	0	1	0	1	2	0	0	0	5	5	0	0	0	8	7	0	0	0	1	4	34
11:30 AM	1	3	0	2	3	0	0	0	1	0	0	2	0	3	4	0	0	0	10	3	32
11:45 AM	1	2	0	3	2	0	0	0	4	1	0	0	0	3	5	0	0	0	2	5	28
Total	3	6	0	13	9	0	0	0	12	6	0	2	0	18	17	0	0	0	16	14	116
12:00 PM	0	0	0	0	2	0	0	0	0	2	0	2	0	12	6	0	2	0	9	7	42
12:15 PM	0	0	0	9	1	0	0	0	3	2	0	4	0	7	4	0	0	0	2	4	36
12:30 PM	1	1	0	11	8	0	0	0	0	1	0	1	0	5	5	0	1	0	7	6	47
12:45 PM	1	0	0	10	4	0	0	0	0	1	0	0	0	0	3	0	1	0	3	18	41
Total	2	1	0	30	15	0	0	0	3	6	0	7	0	24	18	0	4	0	21	35	166
Grand Total	5	7	0	43	24	0	0	0	15	12	0	9	0	42	35	0	4	0	37	49	282
Apprch %	6.3	8.9	0	54.4	30.4	0	0	0	55.6	44.4	0	10.5	0	48.8	40.7	0	4.4	0	41.1	54.4	
Total %	1.8	2.5	0	15.2	8.5	0	0	0	5.3	4.3	0	3.2	0	14.9	12.4	0	1.4	0	13.1	17.4	

	Massachusetts Avenue From North						Boston Street From East						Columbia Road From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 12:00 PM																									
12:00 PM	0	0	0	0	2	2	0	0	0	0	2	2	0	2	0	12	6	20	0	2	0	9	7	18	42
12:15 PM	0	0	0	9	1	10	0	0	0	3	2	5	0	4	0	7	4	15	0	0	0	2	4	6	36
12:30 PM	1	1	0	11	8	21	0	0	0	0	1	1	0	1	0	5	5	11	0	1	0	7	6	14	47
12:45 PM	1	0	0	10	4	15	0	0	0	0	1	1	0	0	0	0	3	3	0	1	0	3	18	22	41
Total Volume	2	1	0	30	15	48	0	0	0	3	6	9	0	7	0	24	18	49	0	4	0	21	35	60	166
% App. Total	4.2	2.1	0	62.5	31.2		0	0	0	33.3	66.7		0	14.3	0	49	36.7		0	6.7	0	35	58.3		
PHF	.500	.250	.000	.682	.469	.571	.000	.000	.000	.250	.750	.450	.000	.438	.000	.500	.750	.613	.000	.500	.000	.583	.486	.682	.883

N/S: Dorchester Avenue
E/W: Columbia Road
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 HHH
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Dorchester Avenue From North					Columbia Road From East					Dorchester Avenue From South					Columbia Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	1	1	0	0	0	3	1	0	0	0	1	3	0	0	0	4	7	21
11:15 AM	0	2	0	0	1	0	0	0	0	1	0	0	0	4	5	0	0	0	2	3	18
11:30 AM	0	0	0	2	0	0	0	0	0	1	0	0	0	0	5	0	1	0	1	4	14
11:45 AM	0	1	0	2	0	0	0	0	1	1	0	3	0	5	5	0	0	0	1	2	21
Total	0	3	0	5	2	0	0	0	4	4	0	3	0	10	18	0	1	0	8	16	74
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	1	0	5	4	0	0	0	4	2	17
12:15 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	8	5	0	0	0	4	3	23
12:30 PM	0	0	0	0	3	0	1	0	0	1	0	0	0	2	10	0	0	0	4	6	27
12:45 PM	0	0	0	1	0	1	0	0	1	1	0	0	0	7	15	0	0	0	16	5	47
Total	0	0	0	2	3	1	1	0	2	4	0	1	0	22	34	0	0	0	28	16	114
Grand Total	0	3	0	7	5	1	1	0	6	8	0	4	0	32	52	0	1	0	36	32	188
Apprch %	0	20	0	46.7	33.3	6.2	6.2	0	37.5	50	0	4.5	0	36.4	59.1	0	1.4	0	52.2	46.4	
Total %	0	1.6	0	3.7	2.7	0.5	0.5	0	3.2	4.3	0	2.1	0	17	27.7	0	0.5	0	19.1	17	

	Dorchester Avenue From North						Columbia Road From East						Dorchester Avenue From South						Columbia Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 12:00 PM																									
12:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	5	4	10	0	0	0	4	2	6	17
12:15 PM	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	8	5	13	0	0	0	4	3	7	23
12:30 PM	0	0	0	0	3	3	0	1	0	0	1	2	0	0	0	2	10	12	0	0	0	4	6	10	27
12:45 PM	0	0	0	1	0	1	1	0	0	1	1	3	0	0	0	7	15	22	0	0	0	16	5	21	47
Total Volume	0	0	0	2	3	5	1	1	0	2	4	8	0	1	0	22	34	57	0	0	0	28	16	44	114
% App. Total	0	0	0	40	60		12.5	12.5	0	25	50		0	1.8	0	38.6	59.6		0	0	0	63.6	36.4		
PHF	.000	.000	.000	.500	.250	.417	.250	.250	.000	.500	.500	.667	.000	.250	.000	.688	.567	.648	.000	.000	.000	.438	.667	.524	.606

N/S: Boston Street
W: Enterprise Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 PPP
Site Code : 804
Start Date : 11/22/2014
Page No : 1

Groups Printed- Peds and Bikes

	Boston Street From North				Boston Street From South				Enterprise Street From West				
Start Time	Right	Thru	Peds EB	Peds WB	Thru	Left	Peds WB	Peds EB	Right	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	2	1	0	0	0	0	1	0	0	2	0	6
11:15 AM	0	1	1	1	0	0	1	0	0	0	1	0	5
11:30 AM	0	0	1	3	0	0	0	0	0	0	2	3	9
11:45 AM	0	0	1	1	2	0	0	0	0	0	0	1	5
Total	0	3	4	5	2	0	1	1	0	0	5	4	25
12:00 PM	0	0	0	1	0	0	0	0	0	0	1	1	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30 PM	0	2	2	1	0	0	0	0	0	0	2	3	10
12:45 PM	0	0	0	0	0	0	1	1	0	0	1	1	4
Total	0	2	2	2	0	0	1	1	0	0	4	6	18
Grand Total	0	5	6	7	2	0	2	2	0	0	9	10	43
Apprch %	0	27.8	33.3	38.9	33.3	0	33.3	33.3	0	0	47.4	52.6	
Total %	0	11.6	14	16.3	4.7	0	4.7	4.7	0	0	20.9	23.3	

	Boston Street From North					Boston Street From South					Enterprise Street From West					
Start Time	Right	Thru	Peds EB	Peds WB	App. Total	Thru	Left	Peds WB	Peds EB	App. Total	Right	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 11:00 AM																
11:00 AM	0	2	1	0	3	0	0	0	1	1	0	0	2	0	2	6
11:15 AM	0	1	1	1	3	0	0	1	0	1	0	0	1	0	1	5
11:30 AM	0	0	1	3	4	0	0	0	0	0	0	0	2	3	5	9
11:45 AM	0	0	1	1	2	2	0	0	0	2	0	0	0	1	1	5
Total Volume	0	3	4	5	12	2	0	1	1	4	0	0	5	4	9	25
% App. Total	0	25	33.3	41.7		50	0	25	25		0	0	55.6	44.4		
PHF	.000	.375	1.00	.417	.750	.250	.000	.250	.250	.500	.000	.000	.625	.333	.450	.694

N/S: Boston Street
E/W: Howell Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION DATA INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 LLL
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Boston Street From North					Howell Street From East					Boston Street From South					W.Howell Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	4	6	0	0	0	5	10	0	1	0	0	1	0	0	0	3	4	34
11:15 AM	1	0	0	2	2	0	0	0	8	11	0	0	0	1	1	0	0	0	5	2	33
11:30 AM	0	0	0	1	3	0	0	0	5	14	0	0	0	0	0	0	0	0	7	3	33
11:45 AM	0	0	0	2	1	0	0	0	8	7	0	1	0	0	1	0	0	0	1	1	22
Total	1	0	0	9	12	0	0	0	26	42	0	2	0	1	3	0	0	0	16	10	122
12:00 PM	0	0	0	2	2	0	0	0	3	1	0	0	0	3	0	0	0	0	3	1	15
12:15 PM	0	0	0	3	1	0	0	0	0	5	0	1	0	1	3	0	0	0	3	5	22
12:30 PM	0	0	0	0	2	0	0	0	5	7	0	0	0	1	1	0	0	0	3	3	22
12:45 PM	0	0	0	4	1	0	0	0	3	12	0	0	0	0	0	0	0	0	4	1	25
Total	0	0	0	9	6	0	0	0	11	25	0	1	0	5	4	0	0	0	13	10	84
Grand Total	1	0	0	18	18	0	0	0	37	67	0	3	0	6	7	0	0	0	29	20	206
Apprch %	2.7	0	0	48.6	48.6	0	0	0	35.6	64.4	0	18.8	0	37.5	43.8	0	0	0	59.2	40.8	
Total %	0.5	0	0	8.7	8.7	0	0	0	18	32.5	0	1.5	0	2.9	3.4	0	0	0	14.1	9.7	

	Boston Street From North						Howell Street From East						Boston Street From South						W.Howell Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:00 AM																									
11:00 AM	0	0	0	4	6	10	0	0	0	5	10	15	0	1	0	0	1	2	0	0	0	3	4	7	34
11:15 AM	1	0	0	2	2	5	0	0	0	8	11	19	0	0	0	1	1	2	0	0	0	5	2	7	33
11:30 AM	0	0	0	1	3	4	0	0	0	5	14	19	0	0	0	0	0	0	0	0	0	7	3	10	33
11:45 AM	0	0	0	2	1	3	0	0	0	8	7	15	0	1	0	0	1	2	0	0	0	1	1	2	22
Total Volume	1	0	0	9	12	22	0	0	0	26	42	68	0	2	0	1	3	6	0	0	0	16	10	26	122
% App. Total	4.5	0	0	40.9	54.5		0	0	0	38.2	61.8		0	33.3	0	16.7	50		0	0	0	61.5	38.5		
PHF	.250	.000	.000	.563	.500	.550	.000	.000	.000	.813	.750	.895	.000	.500	.000	.250	.750	.750	.000	.000	.000	.571	.625	.650	.897

N/S/NE: Dorchester Ave/ Dorchester St
E/W/SW: Preble/Southampton/Boston St
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 EEE
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	Dorchester Avenue From North							Dorchester Street From Northeast							Preble Street From East							Dorchester Avenue From South							Boston Street From Southwest							Southampton Street From West							
Start Time	Right	Bear Right	Thru	Left	Hard Left	Peds EB	Peds WB	Hard Right	Bear Right	Thru	Bear Left	Hard Left	Peds SE B	Peds NW B	Hard Right	Right	Thru	Bear Left	Left	Peds SB	Peds NB	Right	Bear Right	Thru	Left	Hard Left	Peds WB	Peds EB	Hard Right	Right	Thru	Bear Left	Hard Left	Peds NW B	Peds SE B	Hard Right	Right	Thru	Bear Left	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	0	7	6	0	0	0	0	0	9	12	0	0	0	0	0	2	1	0	0	0	0	0	0	2	0	0	0	0	0	8	0	0	0	0	0	14	8	69
11:15 AM	0	0	1	0	0	7	12	0	0	0	0	0	5	24	0	0	0	0	0	4	6	0	0	0	0	0	4	3	0	0	0	0	0	4	6	0	0	0	0	16	5	97
11:30 AM	0	0	0	0	0	4	7	0	0	0	0	0	8	14	0	0	0	0	0	2	2	0	0	0	0	0	2	4	0	0	0	0	0	9	3	0	0	0	0	22	4	81
11:45 AM	0	0	1	0	0	12	8	0	0	0	0	0	18	17	0	0	0	0	0	3	7	0	1	2	0	0	2	2	0	0	0	0	0	14	2	0	0	0	1	0	18	4	112
Total	0	0	2	0	0	30	33	0	0	0	0	0	40	67	0	0	0	0	0	11	16	0	1	2	0	0	8	11	0	0	0	0	0	35	11	0	0	0	1	0	70	21	359
12:00 PM	0	0	0	2	0	11	7	0	0	0	0	0	4	15	0	0	0	0	0	3	6	0	0	1	0	0	0	6	0	0	0	0	0	12	7	0	0	0	0	0	13	13	100
12:15 PM	0	0	0	0	0	6	7	0	0	0	0	0	18	14	0	0	0	0	0	8	3	0	0	0	0	0	1	1	0	0	0	0	0	7	2	0	0	0	0	0	17	14	98
12:30 PM	0	1	0	0	0	7	6	0	0	0	0	0	16	11	0	0	0	0	0	5	4	0	0	0	0	0	1	6	0	0	0	0	0	1	1	0	0	0	0	0	9	9	77
12:45 PM	0	0	0	0	0	5	4	0	0	0	0	0	21	12	0	0	0	0	0	4	5	0	0	0	0	0	7	6	0	0	0	1	0	7	1	0	0	0	0	0	10	4	87
Total	0	1	0	2	0	29	24	0	0	0	0	0	59	52	0	0	0	0	0	20	18	0	0	1	0	0	9	19	0	0	0	1	0	27	11	0	0	0	0	0	49	40	362
Grand Total	0	1	2	2	0	59	57	0	0	0	0	0	99	119	0	0	0	0	0	31	34	0	1	3	0	0	17	30	0	0	0	1	0	62	22	0	0	0	1	0	119	61	721
Apprch %	0	0.8	1.7	1.7	0	48.8	47.1	0	0	0	0	0	45.4	54.6	0	0	0	0	0	47.7	52.3	0	2	5.9	0	0	33.3	58.8	0	0	0	1.2	0	72.9	25.9	0	0	0	0.6	0	65.7	33.7	
Total %	0	0.1	0.3	0.3	0	8.2	7.9	0	0	0	0	0	13.7	16.5	0	0	0	0	0	4.3	4.7	0	0.1	0.4	0	0	2.4	4.2	0	0	0	0.1	0	8.6	3.1	0	0	0	0.1	0	16.5	8.5	

	Dorchester Avenue From North								Dorchester Street From Northeast								Preble Street From East								Dorchester Avenue From South								Boston Street From Southwest								Southampton Street From West								
Start Time					Le				App. Total								App. Total				Le				App. Total				Le				App. Total								App. Total				Le				App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																																																
Peak Hour for Entire Intersection Begins at 11:30 AM																																																
11:30 AM									11								22								4								6								12								26	81
11:45 AM									21								35								10								7								16								23	112
12:00 PM									20								19								9								7								19								26	100
12:15 PM									13								32								11								2								9								31	98
Total Volume % App Total									65								108								34								22								56								106	391
PHF	.0	.0	.2	.2	.0	.6	.9	.77	0	0	5	5	0	8	0	4	.0	.0	.0	.0	.0	.6	.8	.77	0	0	0	0	0	6	6	1	.0	.0	.0	.0	.0	.6	.9	.77	0	0	0	0	0	8	6	4	.0	.0	.0	.0	.0	.5	.6	.77	0	0	0	0	0	0	4	3	.0	.2	.3	.0	.0	.6	.5	.78	0	5	7	0	0	2	4	6	.0	.0	.0	.0	.0	.7	.5	.73	0	0	0	0	0	5	0	7	.0	.0	.0	.2	.0	.7	.6	.85	.87	0	0	0	5	0	9	2	5	3

N/S: I-93 Frontage Road/ I-93 NB Offramp
E/W: Southampton Street
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 FFF
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					Southampton Street From East					I-93 NB Offramp From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	1	0	2	1	0	0	0	0	0	0	0	0	0	7	6	0	0	0	0	0	17
11:15 AM	0	0	0	13	10	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	31
11:30 AM	0	0	0	8	20	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	37
11:45 AM	0	0	0	10	23	0	1	0	0	0	0	0	0	10	4	0	1	0	0	0	49
Total	1	0	2	32	53	0	1	0	0	0	0	0	0	27	17	0	1	0	0	0	134
12:00 PM	0	0	0	12	6	0	0	0	0	0	0	0	0	18	7	0	1	0	0	0	44
12:15 PM	0	0	0	4	8	0	2	0	0	0	0	0	0	8	7	0	0	0	0	0	29
12:30 PM	0	0	0	5	8	0	0	0	0	0	0	0	0	10	3	0	2	0	0	0	28
12:45 PM	0	0	0	3	6	0	2	0	0	0	0	0	0	17	12	0	1	0	0	0	41
Total	0	0	0	24	28	0	4	0	0	0	0	0	0	53	29	0	4	0	0	0	142
Grand Total	1	0	2	56	81	0	5	0	0	0	0	0	0	80	46	0	5	0	0	0	276
Apprch %	0.7	0	1.4	40	57.9	0	100	0	0	0	0	0	0	63.5	36.5	0	100	0	0	0	
Total %	0.4	0	0.7	20.3	29.3	0	1.8	0	0	0	0	0	0	29	16.7	0	1.8	0	0	0	

	I-93 Frontage Road From North						Southampton Street From East						I-93 NB Offramp From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:15 AM																									
11:15 AM	0	0	0	13	10	23	0	0	0	0	0	0	0	0	0	3	5	8	0	0	0	0	0	0	31
11:30 AM	0	0	0	8	20	28	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	0	0	37
11:45 AM	0	0	0	10	23	33	0	1	0	0	0	1	0	0	0	10	4	14	0	1	0	0	0	1	49
12:00 PM	0	0	0	12	6	18	0	0	0	0	0	0	0	0	0	18	7	25	0	1	0	0	0	1	44
Total Volume	0	0	0	43	59	102	0	1	0	0	0	1	0	0	0	38	18	56	0	2	0	0	0	2	161
% App. Total	0	0	0	42.2	57.8		0	100	0	0	0		0	0	0	67.9	32.1		0	100	0	0	0		
PHF	.000	.000	.000	.827	.641	.773	.000	.250	.000	.000	.000	.250	.000	.000	.000	.528	.643	.560	.000	.500	.000	.000	.000	.500	.821

N/S: I-93 Frontage Rd/ Boston Street
W: Plaza Driveway
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 KKK
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					From East					Boston Street From South					Plaza Drive From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	

	I-93 Frontage Road From North						From East						Boston Street From South						Plaza Drive From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:30 AM																									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

N/S: I-93 Frontage Rd/ Plaza Drive
E/W: Southampton Street/I-93 Frontage Rd
City, State: Boston, MA
Client: MDM/ C. Jones

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 144163 JJJ
Site Code : 804
Start Date : 11/15/2014
Page No : 1

Groups Printed- Peds and Bikes

	I-93 Frontage Road From North					I-93 Frontage Road From East					Plaza Drive From South					Southampton Street From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0	0	33.3	33.3	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0	0	33.3	33.3	

	I-93 Frontage Road From North						I-93 Frontage Road From East						Plaza Drive From South						Southampton Street From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 11:30 AM																									
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	3
% App. Total	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		33.3	0	0	33.3	33.3		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250	.375	.375

MDM Transportation Consultants, Inc.

28 Lord Road, Suite 280
Marlborough, MA

Southampton Street at South Bay Center
Dorchester, MA

File Name : 804 Southampton-South Bay Sat
Site Code : 00804001
Start Date : 11/22/2014
Page No : 1

Groups Printed- Bicycles

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 PM	0	1	7	0	8	2	4	2	0	8	0	0	0	0	0	2	5	0	0	7	23
12:15 PM	0	1	1	0	2	2	3	0	0	5	0	0	0	0	0	1	1	0	0	2	9
12:30 PM	1	5	3	0	9	3	1	1	0	5	0	0	0	0	0	0	4	1	0	5	19
12:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	7	12	0	20	7	8	3	0	18	0	0	0	0	0	3	10	1	0	14	52
Grand Total	1	7	12	0	20	7	8	3	0	18	0	0	0	0	0	3	10	1	0	14	52
Apprch %	5	35	60	0		38.9	44.4	16.7	0		0	0	0	0		21.4	71.4	7.1	0		
Total %	1.9	13.5	23.1	0	38.5	13.5	15.4	5.8	0	34.6	0	0	0	0	0	5.8	19.2	1.9	0	26.9	

	Southampton Street From North					Southampton Street From East					Frontage Road Connector From South					South Bay Center Driveway From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 12:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00 PM																					
12:00 PM	0	1	**7**	0	8	2	**4**	**2**	0	**8**	0	0	0	0	0	**2**	**5**	0	0	**7**	**23**
12:15 PM	0	1	1	0	2	2	3	0	0	5	0	0	0	0	0	1	1	0	0	2	9
12:30 PM	**1**	**5**	3	0	**9**	**3**	1	1	0	5	0	0	0	0	0	0	4	**1**	0	5	19
12:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	7	12	0	20	7	8	3	0	18	0	0	0	0	0	3	10	1	0	14	52
% App. Total	5	35	60	0		38.9	44.4	16.7	0		0	0	0	0		21.4	71.4	7.1	0		
PHF	.250	.350	.429	.000	.556	.583	.500	.375	.000	.563	.000	.000	.000	.000	.000	.375	.500	.250	.000	.500	.565

N/S: Frontage Road SB
E: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 AAA
Site Code : 804
Start Date : 4/18/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road SB From North				South Boston Bypass Road From East				Frontage Road SB From South				
Start Time	Thru	Left	Peds EB	Peds WB	Right	Left	Peds SB	Peds NB	Right	Thru	Peds WB	Peds EB	Int. Total
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	
Total %													

	Frontage Road SB From North					South Boston Bypass Road From East					Frontage Road SB From South					
Start Time	Thru	Left	Peds EB	Peds WB	App. Total	Right	Left	Peds SB	Peds NB	App. Total	Right	Thru	Peds WB	Peds EB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 11:00 AM																
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0		0	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

N/S: Frontage Road NB
E/W: South Boston Bypass Road
City, State: Boston, MA
Client: MDM/ M. Houle

PRECISION DATA INDUSTRIES, LLC
P.O.Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

File Name : 154378 BBB
Site Code : 804
Start Date : 4/18/2015
Page No : 1

Groups Printed- Peds and Bikes

	Frontage Road NB From North					South Boston Bypass Road From East					Frontage Road NB From South					South Boston Bypass Road From West					
Start Time	Right	Thru	Left	Peds EB	Peds WB	Right	Thru	Left	Peds SB	Peds NB	Right	Thru	Left	Peds WB	Peds EB	Right	Thru	Left	Peds NB	Peds SB	Int. Total
11:00 AM	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	0	0	0	4
Grand Total	0	0	0	0	1	0	0	0	3	1	0	0	0	0	2	0	0	0	0	0	7
Apprch %	0	0	0	0	100	0	0	0	75	25	0	0	0	0	100	0	0	0	0	0	
Total %	0	0	0	0	14.3	0	0	0	42.9	14.3	0	0	0	0	28.6	0	0	0	0	0	

	Frontage Road NB From North						South Boston Bypass Road From East						Frontage Road NB From South						South Boston Bypass Road From West						
Start Time	Right	Thru	Left	Peds EB	Peds WB	App. Total	Right	Thru	Left	Peds SB	Peds NB	App. Total	Right	Thru	Left	Peds WB	Peds EB	App. Total	Right	Thru	Left	Peds NB	Peds SB	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 12:45 PM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 12:00 PM																									
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	2	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	2	0	0	0	0	0	0	4
% App. Total	0	0	0	0	0		0	0	0	50	50		0	0	0	0	100		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.333

□ Seasonal/Yearly Growth Calculations

SECTION I - CONTINUOUS COUNTING STATION MONTHLY AVERAGE DAILY TRAFFIC

STATION 691 - QUINCY - RTE.I-93 - NORTH OF RTE.28

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	November Adjustment to Year	February Adjustment to Year	March Adjustment to Year	April Adjustment to Year
09	173,000	175,000	177,697	194,334	196,834	199,477	196,208	194,125	190,885	186,291	176,509	174,000	186,197	1.05	1.06	1.05	0.96
	-2%	0%	4%	-1%	-1%	0%	-1%	-1%	0%	1%	3%	4%	1%				
11	167,126	175,019	190,197	192,089	194,127	197,487	194,151	190,914	192,702	189,561	186,958	*187,438*	188,147	1.01	1.08	0.99	0.98
	1%	5%	0%	1%	0%	-1%	-1%	2%	-1%	-2%	0%	-3%	0%				
12	169,602	184,324	189,819	193,864	194,599	195,224	191,887	195,288	190,420	185,580	186,167	*182,504*	188,273	1.01	1.02	0.99	0.97
	6%	-3%	-3%	-3%	-1%	0%	0%	1%	1%	2%	-1%	-3%	0%				
13	179,376	178,566	184,676	188,415	192,495	194,852	191,244	*197,178*	192,661	189,852	184,753	177,157	187,602	1.02	1.05	1.02	1.00
												Growth	0.08%	1.02	1.05	1.01	0.98

STATION 703 - ABINGTON - RTE.123 - AT THE BROCKTON C.L.

YR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR				
05	11,765	13,137	13,345	13,910	13,694	14,536	13,543	13,701	13,854	13,505	13,683	*13,585*	13,522	0.99	1.03	1.01	0.97
	7%	-1%	3%	-1%	1%	-2%	-5%	-3%	-1%	2%	0%	1%	0%				
06	12,635	13,053	13,787	13,800	13,829	14,197	12,875	13,252	13,744	13,804	13,637	*13,677*	13,524	0.99	1.04	0.98	0.98
	1%	1%	-2%	-1%	0%	-3%	3%	2%	-1%	-1%	-3%	-7%	-1%				
07	12,725	13,219	13,457	13,626	13,808	13,831	13,234	*13,490*	13,544	13,620	13,289	12,763	13,384	1.01	1.01	0.99	0.98
	-2%	-2%	-2%	0%	-3%	-3%	-2%	-5%	1%	1%	-2%	2%	-1%				
08	12,431	12,909	13,144	13,662	13,430	13,479	13,027	*12,806*	13,646	13,740	13,012	13,034	13,193	1.01	1.02	1.00	0.97
	-1%	2%	1%	1%	-1%	3%	3%	3%	3%	0%	1%	2%	1%				
09	12,251	13,199	13,301	13,860	13,231	13,817	13,354	*13,212*	14,037	13,712	13,161	13,327	13,372	1.02	1.01	1.01	0.96
	1%	0%	2%	1%	6%	0%	0%	2%	-1%	1%	1%	-3%	1%				
10	12,356	13,142	13,629	13,942	14,001	13,859	13,299	13,442	13,874	13,868	13,350	*12,989*	13,479	1.01	1.03	0.99	0.97
	-5%	-4%	-2%	-3%	-3%	-2%	-2%	-3%	-1%	-1%	0%	3%	-2%				
11	11,690	12,662	13,410	13,515	13,585	13,612	12,975	*13,016*	13,668	13,685	13,377	13,350	13,212	0.99	1.04	0.99	0.98
	6%	4%	0%	0%	-2%	-1%	-6%	0%	1%	0%	0%	0%	0%				
12	12,382	13,150	13,430	13,546	13,366	13,534	12,225	*13,018*	13,740	13,653	13,399	13,378	13,235	0.99	1.01	0.99	0.98
	-1%	-6%	-3%	0%	0%	0%	5%	0%	-1%	0%	-1%	-1%	-1%				
13	12,301	12,335	13,001	13,557	13,321	13,558	12,876	*13,055*	13,640	13,635	13,199	13,188	13,139	1.00	1.07	1.01	0.97
												Growth	-0.35%	1.00	1.03	1.00	0.97

Average Adjusment Factor	1.01	1.04	1.00	0.97

Average Yearly Growth Calculated -0.2%
Yearly Growth Factor Used 0.5%

ITALICS = ESTIMATED DATA
MADT

□ Car Sharing

sign in

zipcar wheels when you want them

for everybody for business for universities

Boston join! is zipcar for me? how it works find cars rates & plans

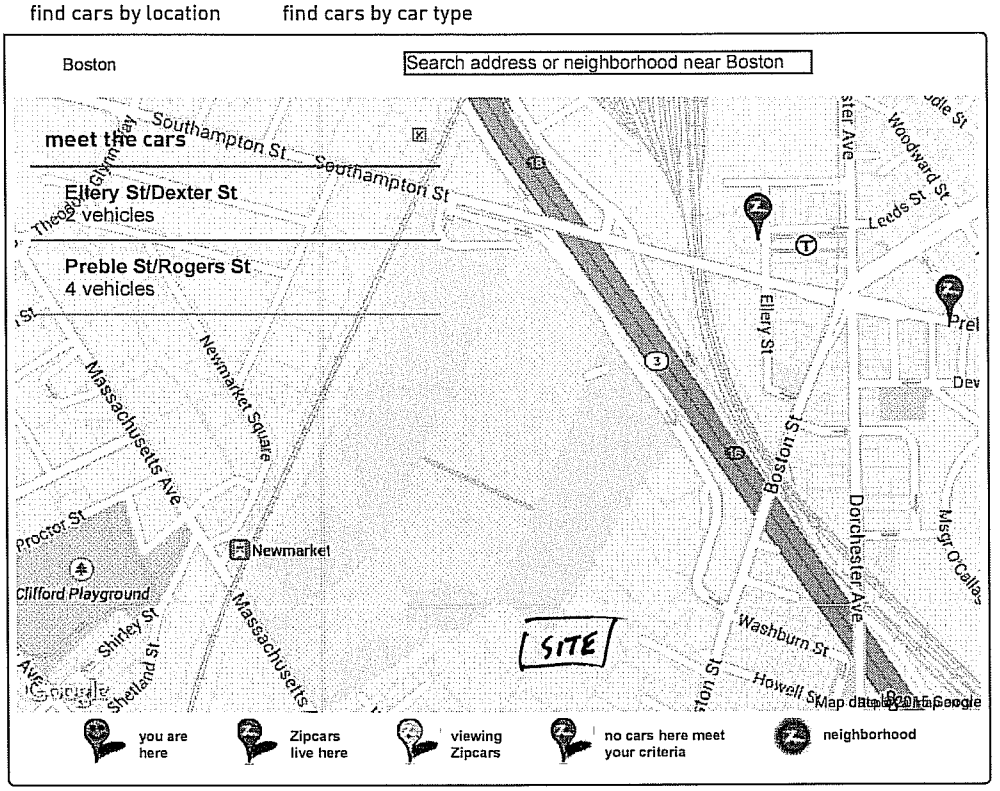
where do zipcars live?

Need a car for a few hours near Boston? Zipcar is an alternative to car rental and car ownership. It's a car, but only when you need one. Check out the map below. Enter an address, zip code, or neighborhood to find Boston Zipcars.

join zipcar

find cars
- overview
- meet the locals

find cars by location find cars by car type



meet the locals

Want to see cars in a different area?
Enter a zip code or address below for where you want to zip.

search



"Chakor"
Nissan Sentra
1 Brattle Dr - Brattle Dr Apts
Starting at $10.50/hour
see my profile



"Closson"
Nissan Sentra
Wooley Ave/Kingsbury Ave - The Arsenal on the Charles
Starting at $10.50/hour
see my profile



"Verle"
Nissan Versa
570 Washington St - Brighton
Starting at $9.50/hour
see my profile



"Marriott"
Mazda 2
Comm Ave/Wade St - Sunoco - Brighton
Starting at $10.50/hour
see my profile

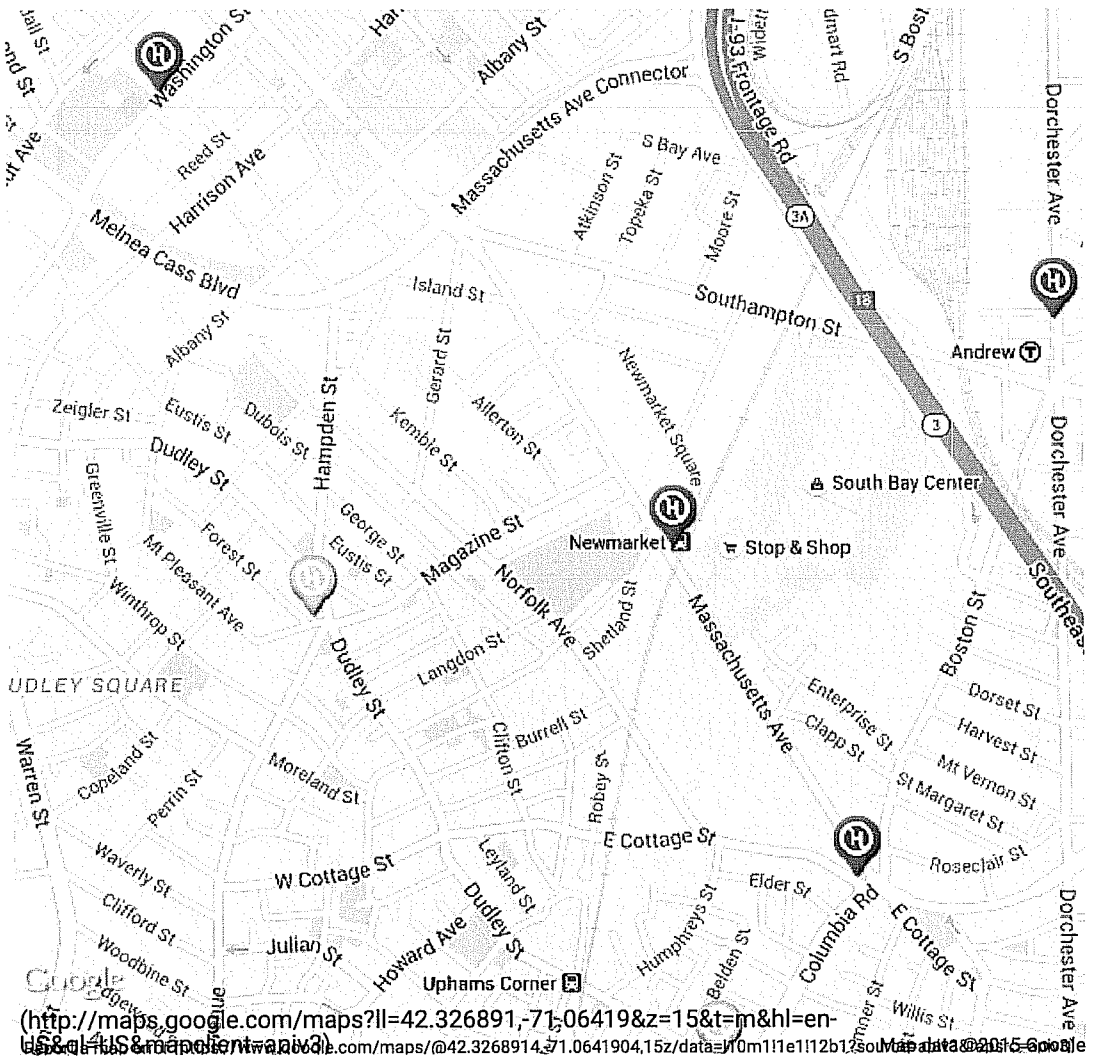
Take one of these babies for a spin. Join Zipcar

□ Bicycle Sharing

Station Map

In Service Out of Service Suggest Locations Download a Printable Map

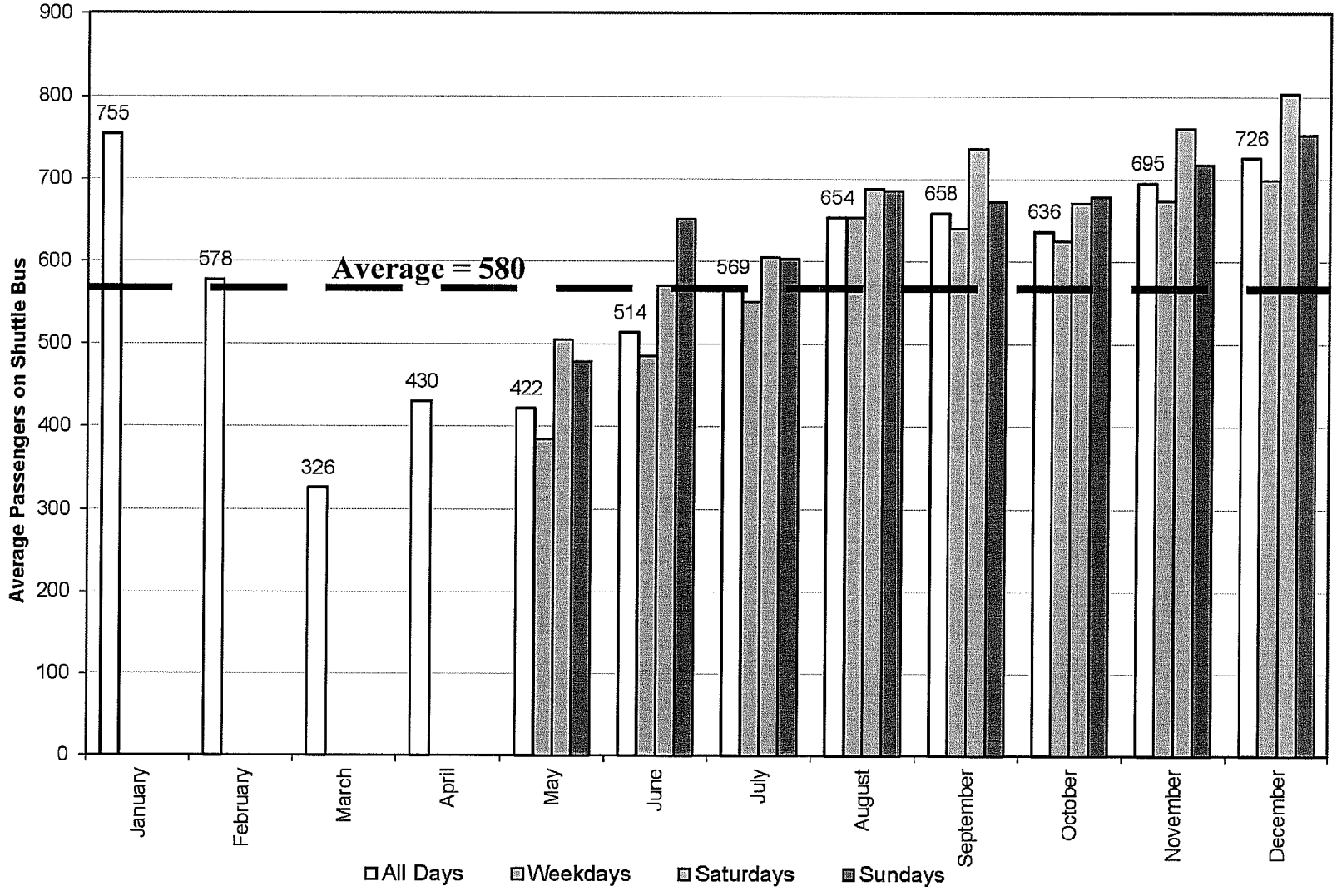
Planned New *



(http://maps.google.com/maps?ll=42.326891,-71.06419&z=15&t=m&hl=en-US&gl=US&mapclient=apiv3)

* New Stations are stations installed within the last 30 days.

□ Public Transportation/Shuttle Information

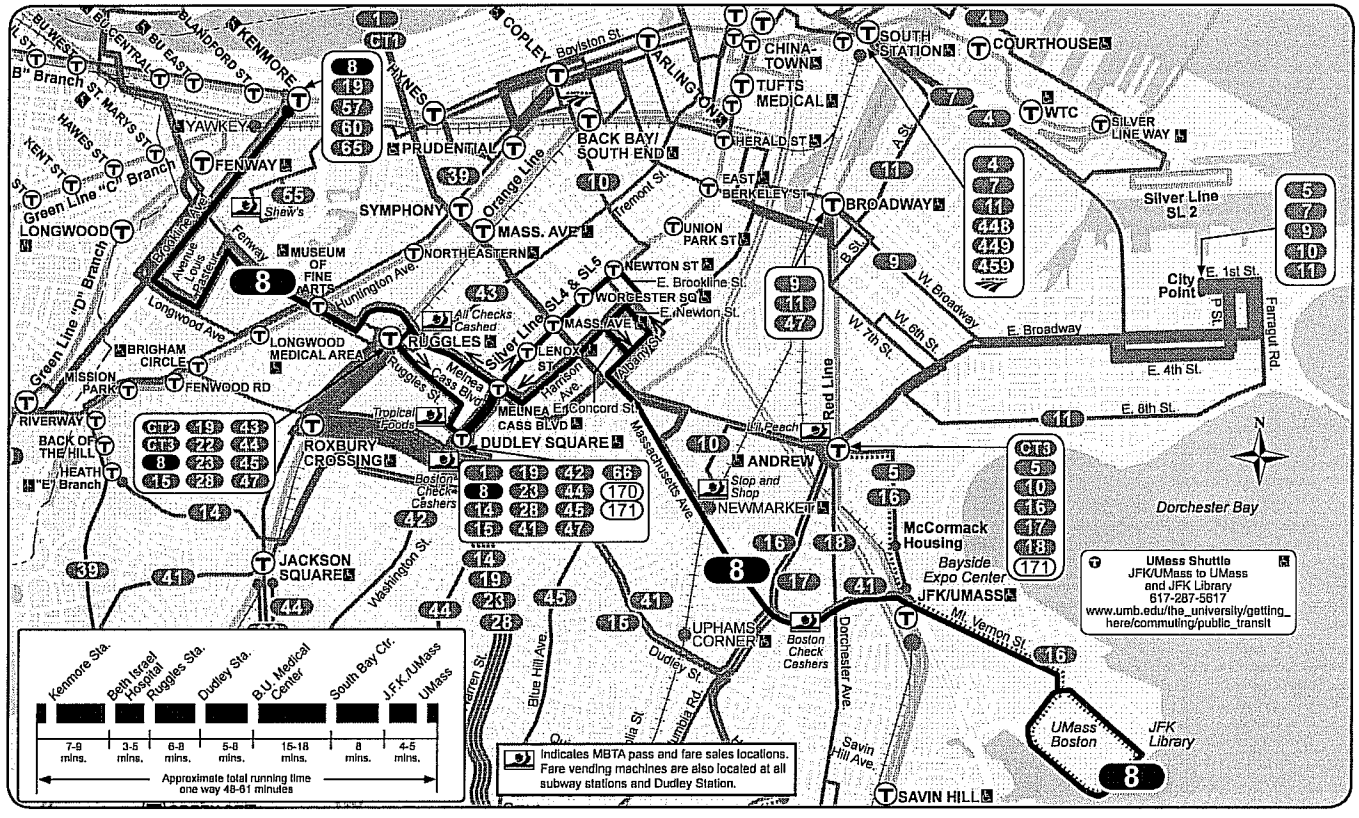


MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Appendix
2014 Shuttle Bus Passengers

Date: April 2015
Dwg No. 804 PNF Aerial (4-10-2015).dwg
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Route 8 Harbor Point/UMass - Kenmore Station



8

Spring March 21, 2015 - June 19, 2015

Harbor Point/UMass-Kenmore Station

Serving
- South Bay Center
- Ruggles Station
- BU Medical Campus
- Dudley Station
- Wentworth Institute
- Longwood Medical Area
- Fenway Park
- Red Line
- Orange Line
- Green Line
- Silver Line
- Fairmount Commuter Rail



Massachusetts Bay Transportation Authority

massDOT

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

8 Weekday

Inbound

Leave UMass	Arrive South Bay Ctr.	Arrive BU Med Campus	Arrive Dudley Station	Arrive Ruggles Station	Arrive Kenmore Station
5:15A	.....	5:29A	5:35A	5:38A	5:51A
5:30	.....	5:44	5:50	5:53	6:07
5:45	.....	5:59	6:07	6:12	6:30
5:59	.....	6:18	6:26	6:31	6:49
6:13	.....	6:32	6:40	6:45	7:03
6:27	.....	6:46	6:54	6:59	7:17
.....	.....	.....	.....	s 7:11	7:25
6:41	.....	7:00	7:08	7:13	7:31
6:55	.....	7:14	7:22	7:27	7:45
7:09	.....	7:28	7:36	7:41	7:59
7:23	.....	7:42	7:50	7:55	8:14
7:37	.....	7:56	8:05	8:11	8:30
7:51	.....	8:15	8:24	8:30	8:49
8:05	.....	8:29	8:38	8:44	9:03
8:20	.....	8:44	8:53	8:59	9:18
8:40	8:55A	9:09	9:24	9:29	9:44
9:05	9:20	9:34	9:42	9:50	10:05
9:40	9:55	10:08	10:16	10:24	10:39
10:25	10:40	10:53	11:01	11:09	11:24
11:10	11:25	11:38	11:46	11:54	12:09P
12:00N	12:15P	12:28P	12:36P	12:44P	12:59P
12:50	1:05	1:18	1:26	1:33	1:52
1:32	1:50	2:02	2:11	2:17	2:36
2:00	2:18	2:30	2:39	2:45	3:04
2:30	2:48	3:00	3:09	3:15	3:34
3:00	3:18	3:30	3:39	3:45	4:04
3:28	3:44	3:56	4:05	4:12	4:32
3:51	4:07	4:19	4:28	4:35	4:55
4:16	4:33	4:45	4:54	5:01	5:25
4:41	4:58	5:09	5:18	5:24	5:48
5:10	5:28	5:39	5:48	5:54	6:18
5:40	5:58	6:09	6:18	6:24	6:42
6:10	6:28	6:37	6:43	6:48	7:02
6:40	6:54	7:03	7:09	7:14	7:28
7:10	7:24	7:33	7:39	7:44	7:58
7:38	7:52	8:01	8:06	8:11	8:24
8:15	8:28	8:35	8:42	8:45	8:57
8:50	9:01	9:08	9:15	9:18	9:30
9:25	9:36	9:43	9:50	9:53	10:05
10:00	10:11	10:18	10:25	10:28	10:40
10:35	10:46	10:53	11:00	11:03	11:15
11:08	.....	11:20	11:25	11:29	11:39
11:42	.....	11:54	11:59	12:03A	12:13A
12:25A	.....	12:37A	12:42A	12:46	12:56

Outbound

Leave Kenmore Station	Arrive Ruggles Station	Arrive Dudley Station	Arrive BU Med Campus	Arrive South Bay Ctr.	Arrive UMass
5:35A	5:43A	5:49A	5:55A	.....	6:13A
5:55	6:04	6:10	6:17	.....	6:34
6:14	6:24	6:30	6:37	.....	6:54
6:31	6:41	6:47	6:54	.....	7:15
6:48	6:58	7:05	7:14	.....	7:37
7:02	7:16	7:23	7:32	.....	7:55
s 7:06	7:21	.....	.....	.....	.....
7:16	7:30	7:37	7:46	.....	8:09
7:30	7:44	7:51	8:00	.....	8:23
7:44	7:58	8:05	8:14	.....	8:37
7:58	8:12	8:19	8:28	.....	8:51
8:12	8:26	8:33	8:42	.....	9:05
8:26	8:40	8:48	8:58	9:09A	9:23
8:40	8:54	9:02	9:12	9:23	9:39
9:00	9:14	9:22	9:32	9:44	9:58
9:22	9:36	9:44	9:53	10:03	10:19
9:47	10:04	10:13	10:25	10:33	10:49
10:12	10:27	10:36	10:48	10:56	11:13
10:49	11:04	11:13	11:23	11:37	11:54
11:36	11:52	12:01P	12:11P	12:25P	12:42P
12:20P	12:36P	12:45P	12:55P	1:09P	1:26P
1:12	1:28	1:37	1:47	2:01	2:21
2:02	2:19	2:30	2:41	2:54	3:16
2:23	2:40	2:51	3:02	3:17	3:38
s 2:30	2:48	2:57	.....	.....	.....
2:43	3:01	3:12	3:23	3:38	3:59
3:13	3:31	3:42	3:53	4:08	4:29
3:43	4:01	4:12	4:23	4:38	4:59
4:13	4:31	4:42	4:53	5:07	5:31
4:41	4:59	5:10	5:20	5:33	5:57
5:08	5:26	5:37	5:47	6:00	6:20
5:35	5:53	6:02	6:11	6:19	6:39
6:02	6:17	6:24	6:33	6:41	7:01
6:28	6:43	6:50	6:59	7:07	7:27
6:54	7:09	7:16	7:25	7:33	7:48
7:20	7:32	7:39	7:45	7:53	8:08
7:50	8:01	8:08	8:14	8:22	8:37
8:31	8:42	8:49	8:55	9:03	9:18
9:05	9:16	9:23	9:29	9:35	9:48
9:40	9:50	9:56	10:02	10:08	10:21
10:15	10:25	10:31	10:37	10:43	10:56
10:55	11:04	11:09	11:15	.....	11:30
11:45	11:53	11:58	12:04A	.....	12:19A
12:20A	12:28A	12:33A	12:39	.....	12:54

s - Does NOT run during school vacation

8 Saturday

Inbound

Leave UMass	Arrive South Bay Ctr.	Arrive BU Med Campus	Arrive Dudley Station	Arrive Ruggles Stationn	Arrive Kenmore Station
6:30A	.....	6:45A	6:49A	6:53A	7:05A
7:14	.....	7:29	7:35	7:40	7:53
8:01	.....	8:21	8:27	8:32	8:45
8:49	.....	9:09	9:15	9:20	9:33
9:24	9:42A	9:52	9:59	10:05	10:17
10:04	10:22	10:32	10:39	10:45	10:57
10:42	11:00	11:12	11:21	11:27	11:39
11:24	11:40	11:52	12:01P	12:05P	12:17P
12:05P	12:22P	12:31P	12:40P	12:44P	12:56P
12:51	1:08	1:17	1:26	1:30	1:42
1:31	1:48	1:57	2:06	2:10	2:22
2:11	2:28	2:37	2:46	2:50	3:02
2:58	3:15	3:24	3:33	3:37	3:49
3:38	3:55	4:04	4:13	4:17	4:29
4:18	4:35	4:44	4:53	4:57	5:09
5:02	5:19	5:28	5:37	5:41	5:53
5:42	5:59	6:08	6:17	6:21	6:34
6:18	6:33	6:40	6:47	6:52	7:05
7:12	7:27	7:34	7:41	7:46	7:58
8:08	8:23	8:30	8:36	8:40	8:50
9:01	9:14	9:20	9:26	9:30	9:40
10:00	10:13	10:19	10:25	10:29	10:39
10:45	10:58	11:05	11:11	11:15	11:22
11:45	.....	11:58	12:03A	12:08A	12:16A

Outbound

Leave Kenmore Station	Arrive Ruggles Station	Arrive Dudley Station	Arrive BU Med Campus	Arrive South Bay Ctr.	Arrive UMass
7:17A	7:26A	7:32A	7:38A	.....	7:54A
8:01	8:10	8:16	8:22	.....	8:40
8:54	9:04	9:11	9:17	.....	9:36
10:23	10:34	10:41	10:50	10:58	11:17
11:02	11:12	11:19	11:28	11:38	11:57
11:47	11:59	12:07P	12:14P	12:24P	12:43P
12:27P	12:39P	12:47P	12:54P	1:04P	1:23P
1:07	1:19	1:27	1:34	1:44	2:03
1:51	2:03	2:11	2:18	2:28	2:48
2:31	2:44	2:52	2:59	3:08	3:28
3:11	3:24	3:32	3:39	3:48	4:08
3:57	4:10	4:18	4:25	4:33	4:53
4:39	4:50	4:57	5:05	5:13	5:33
5:18	5:29	5:36	5:44	5:52	6:12
6:03	6:13	6:20	6:27	6:34	6:53
6:43	6:53	7:00	7:07	7:14	7:32
7:13	7:23	7:30	7:36	7:44	8:00
8:06	8:16	8:22	8:28	8:36	8:52
9:00	9:10	9:16	9:23	9:29	9:43
9:50	10:00	10:06	10:13	10:19	10:32
10:49	10:58	11:04	11:10	11:16	11:28
11:45	11:53	11:58	12:03A	.....	12:16A
12:30A	12:38A	12:43A	12:48	.....	1:01

NOTE: For additional service through Longwood Medical Area, please refer to the Route 19 or 47 schedule cards.

Spring 2015 Holidays
April 20: see Weekday May 25: see Sunday

All buses are accessible to persons with disabilities

Route 8
Harbor Point/UMass-Kenmore Station

8 Sunday

Inbound

Leave UMass	Arrive South Bay Ctr.	Arrive BU Med Campus	Arrive Dudley Station	Arrive Ruggles Station	Arrive Kenmore Station
6:30A	.....	6:44A	6:49A	6:53A	7:04A
7:15	.....	7:29	7:34	7:38	7:49
8:00	.....	8:15	8:21	8:25	8:36
8:45	.....	9:00	9:06	9:10	9:21
9:30	.....	9:45	9:51	9:55	10:06
10:15	.....	10:31	10:37	10:41	10:55
11:00	.....	11:19	11:25	11:29	11:43
11:45	.....	12:04P	12:10P	12:14P	12:28P
12:25P	12:40P	12:48P	12:54P	12:59P	1:12P
1:05	1:21	1:30	1:37	1:42	1:55
1:50	2:06	2:15	2:22	2:27	2:40
2:35	2:51	3:00	3:07	3:13	3:26
3:20	3:36	3:45	3:52	3:58	4:10
4:05	4:19	4:28	4:35	4:40	4:52
4:50	5:04	5:13	5:20	5:25	5:37
5:35	5:49	5:58	6:05	6:10	6:22
6:20	6:34	6:43	6:50	6:55	7:07
7:05	.....	7:27	7:33	7:37	7:48
8:00	.....	8:14	8:20	8:24	8:35
8:45	.....	8:59	9:05	9:09	9:20
9:30	.....	9:44	9:50	9:54	10:05
10:15	.....	10:29	10:35	10:39	10:50
11:00	.....	11:14	11:18	11:23	11:31
11:45	.....	11:59	12:03A	12:08A	12:16A

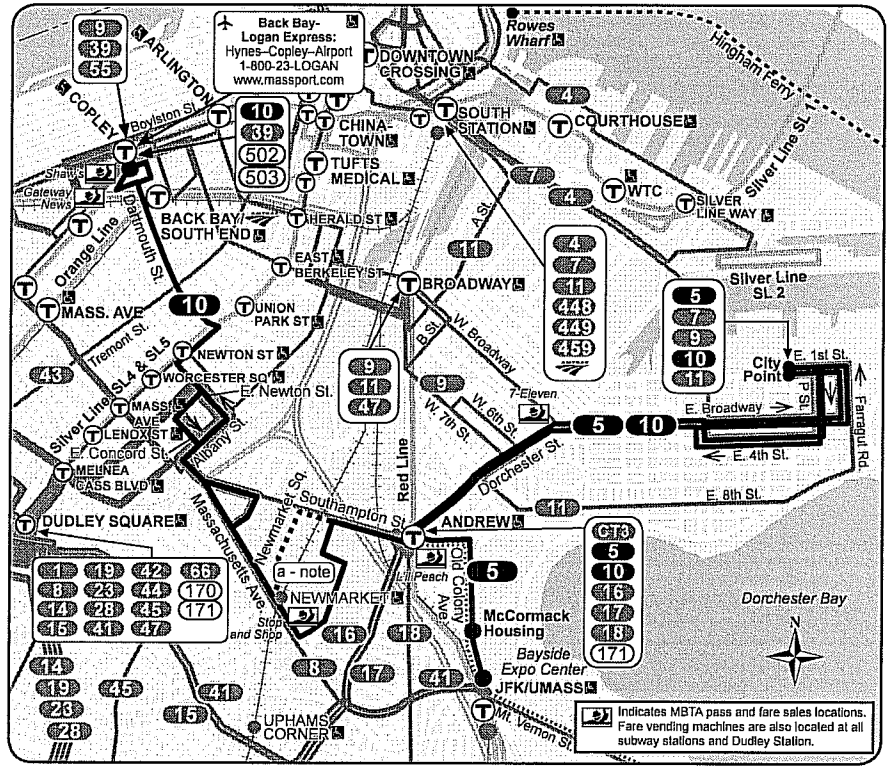
Outbound

Leave Kenmore Station	Arrive Ruggles Station	Arrive Dudley Station	Arrive BU Med Campus	Arrive South Bay Ctr.	Arrive UMass
7:13A	7:21A	7:27A	7:34A	.....	7:49A
8:00	8:08	8:14	8:21	.....	8:36
8:45	8:53	8:59	9:06	.....	9:21
9:30	9:39	9:45	9:53	.....	10:08
10:15	10:24	10:30	10:38	.....	10:53
11:00	11:09	11:15	11:23	.....	11:39
11:50	11:59	12:06P	12:14P	.....	12:33P
12:35P	12:45P	12:51P	12:59P	1:07P	1:26P
1:20	1:30	1:36	1:44	1:52	2:10
2:05	2:16	2:23	2:31	2:40	2:59
2:50	3:01	3:08	3:16	3:24	3:45
3:35	3:46	3:53	4:01	4:09	4:30
4:20	4:31	4:38	4:46	4:54	5:13
5:05	5:16	5:23	5:31	5:37	5:57
5:50	6:00	6:06	6:13	6:20	6:35
6:35	6:45	6:51	6:58	7:05	7:20
7:15	7:25	7:31	7:37	.....	7:53
8:00	8:09	8:15	8:21	.....	8:37
8:45	8:54	9:00	9:06	.....	9:22
9:30	9:39	9:45	9:51	.....	10:07
10:15	10:24	10:30	10:36	.....	10:49
11:00	11:08	11:14	11:20	.....	11:33
11:45	11:53	11:59	12:05A	.....	12:18A
12:28A	12:36A	12:42A	12:48	.....	1:01

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75
Cash-on-Board	$2.10	$4.20	$2.65	$4.75
Student CharlieCard*	$0.80	$0.80	$1.05	$1.05
Senior/TAP CharlieCard**	$0.80	$0.80	$1.05	$1.05

VALID PASSES: LinkPass ($75/mo.); Monthly Local Bus ($50/mo.); *StudentPass ($26.00/Month for 5-Day validity Mon-Fri or 7-Day validity on all days); **Senior/TAP Pass ($29/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard, available to students through participating middle schools and high schools.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Route 5 City Point - McCormack Housing
Route 10 City Point - Copley Square



5•10

Spring March 21, 2015 - June 19, 2015

5 City Point-McCormack Housing

10 City Point-Copley Square

Serving
- Andrew Station
- South Bay Center
- BU Medical Campus
- Back Bay Station
- JFK/UMass Station
- Red Line
- Orange Line
- Green Line
- Silver Line



Massachusetts Bay Transportation Authority

massDOT

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(TTY) 617-222-5146 • www.mbta.com

10 Weekday

Inbound					Outbound				
Leave City Point	Arrive Andrew Station	Arrive BU Med Campus	Arrive Back Bay Station	Arrive St. James Dartmouth	Leave St. James Dartmouth	Arrive Back Bay Station	Arrive BU Med Campus	Arrive Andrew Station	Arrive City Point
a 4:55A	5:04A	5:12A	5:16A	5:18A	a 5:30A	5:32A	5:35A	5:44A	5:51A
a 5:30	5:41	5:50	5:55	5:58	a 6:05	6:07	6:11	6:21	6:32
a 5:45	5:56	6:06	6:12	6:15	6:25	6:27	6:33	6:46	6:59
6:05	6:17	6:28	6:35	6:37	a 6:50	6:53	7:00	7:12	7:25
a 6:15	6:27	6:38	6:44	6:47	a 7:05	7:08	7:15	7:27	7:40
ads6:25	6:38	.....	.....	.....	.....	.....	.....	s 7:40	7:52
a 6:45	6:57	7:12	7:20	7:22	a 7:25	7:28	7:35	7:47	8:00
a 7:05	7:20	7:36	7:44	7:46	a 7:40	7:43	7:50	8:02	8:15
a 7:25	7:40	7:56	8:04	8:06	as 7:50	7:53	8:00	8:11	.....
a 7:45	8:00	8:16	8:24	8:26	a 8:00	8:03	8:10	8:22	8:36
a 8:05	8:20	8:36	8:44	8:46	8:20	8:23	8:32	8:47	9:02
a 8:25	8:40	8:56	9:04	9:06	8:40	8:43	8:52	9:06	9:18
8:45	8:58	9:18	9:25	9:28	8:50	8:53	9:02	9:16	9:28
9:20	9:33	9:53	10:00	10:03	9:00	9:02	9:10	9:23	.....
9:55	10:08	10:28	10:35	10:38	9:15	9:17	9:25	9:39	9:51
10:30	10:43	11:03	11:10	11:13	9:40	9:42	9:50	10:06	10:19
11:05	11:18	11:38	11:45	11:48	10:15	10:17	10:25	10:44	10:57
11:40	11:53	**12:13P**	**12:20P**	**12:23P**	10:50	10:52	11:00	11:19	11:32
					11:25	11:27	11:35	11:54	**12:07P**
12:15P	**12:28P**	**12:48P**	**12:55P**	**12:58P**					
12:50	**1:03**	**1:23**	**1:30**	**1:33**	**12:00N**	**12:02P**	**12:10P**	**12:29P**	**12:42P**
1:25	**1:38**	**1:58**	**2:07**	**2:10**	**12:35**	**12:37**	**12:45**	**1:04**	**1:17**
2:00	**2:15**	**2:37**	**2:46**	**2:49**	**1:10**	**1:12**	**1:20**	**1:39**	**1:52**
2:25	**2:40**	**3:01**	**3:10**	**3:14**	.....	.....	.....	ts 1:53	**2:11**
2:50	**3:06**	**3:21**	**3:30**	**3:32**	.....	.....	.....	ts 1:53	**2:11**
3:15	**3:31**	**3:48**	**3:58**	**4:00**	**1:45**	**1:47**	**1:55**	**2:14**	**2:27**
3:39	**3:53**	**4:10**	**4:20**	**4:22**	**2:20**	**2:22**	**2:30**	**2:52**	**3:05**
4:03	**4:17**	**4:34**	**4:44**	**4:46**	**2:55**	**2:57**	**3:06**	**3:28**	**3:41**
4:27	**4:41**	**4:58**	**5:08**	**5:10**	**3:25**	**3:27**	**3:36**	**3:58**	**4:11**
4:51	**5:05**	**5:22**	**5:32**	**5:34**	**3:49**	**3:51**	**4:00**	**4:22**	**4:35**
5:15	**5:29**	**5:46**	**5:56**	**5:58**	**4:13**	**4:15**	**4:24**	**4:46**	**4:59**
5:39	**5:53**	**6:10**	**6:18**	**6:21**	**4:37**	**4:39**	**4:48**	**5:07**	**5:21**
6:03	**6:16**	**6:32**	**6:38**	**6:40**	**5:01**	**5:04**	**5:12**	**5:29**	**5:43**
6:27	**6:40**	**6:54**	**7:01**	**7:02**	**5:25**	**5:28**	**5:36**	**5:53**	**6:07**
7:00	**7:12**	**7:25**	**7:34**	**7:35**	**5:49**	**5:52**	**6:00**	**6:17**	**6:32**
7:35	**7:47**	**8:00**	**8:09**	**8:10**	**6:13**	**6:16**	**6:24**	**6:40**	**6:53**
8:00	**8:12**	**8:25**	**8:32**	**8:33**	**6:37**	**6:39**	**6:45**	**7:00**	**7:13**
8:25	**8:36**	**8:48**	**8:54**	**8:55**	**7:01**	**7:03**	**7:09**	**7:24**	**7:37**
9:00	**9:10**	**9:21**	**9:26**	**9:28**	**7:25**	**7:27**	**7:33**	**7:48**	**8:00**
9:25	**9:35**	**9:46**	**9:51**	**9:53**	**7:50**	**7:52**	**7:58**	**8:10**	**8:21**
9:55	**10:05**	**10:16**	**10:21**	**10:23**	**8:20**	**8:22**	**8:27**	**8:39**	**8:50**
a 10:30	**10:40**	**10:51**	**10:56**	**10:58**	**8:45**	**8:47**	**8:52**	**9:04**	**9:15**
a 11:34	**11:43**	**11:52**	**11:58**	12:00M	**9:15**	**9:17**	**9:22**	**9:34**	**9:45**
a 12:32A	12:41A	12:50A	12:56A	12:58A	**9:55**	**9:57**	**10:02**	**10:14**	**10:25**
					10:35	**10:37**	**10:42**	**10:51**	**11:02**
					a 11:05	**11:06**	**11:12**	**11:21**	**11:30**
					a 12:05A	12:06A	12:12A	12:21A	12:30A
					aw 1:05	1:08	1:14	1:20	1:31

a - Omits South Bay Center
d - To Dudley Station
s - Does NOT run during school vacation
t - Leaves from Townsend & Warren Sts. at 1:40pm
w - Waits for last train to arrive, then leaves from Copley Square. Sunday through Thursday only. Friday and Saturday leaves at scheduled time.

10 Saturday

Inbound			Outbound		
Leave City Point	Arrive Andrew Station	Arrive St. James Dartmouth	Leave St. James Dartmouth	Arrive Andrew Station	Arrive City Point
6:15A	6:24A	6:44A	7:00A	7:19A	7:29A
7:15	7:24	7:44	8:00	8:19	8:29
8:15	8:26	8:49	9:00	9:21	9:32
9:00	9:13	9:38	9:55	10:17	10:31
9:40	9:53	10:18	10:32	10:54	11:08
10:15	10:28	10:53	11:06	11:31	11:46
10:50	11:03	11:28	11:36	**12:01P**	**12:16P**
11:25	11:39	**12:07P**			
			12:06P	**12:31P**	**12:46P**
12:00N	**12:14P**	**12:42P**	**12:31**	**12:56**	**1:11**
12:30P	**12:44**	**1:12**	**12:56**	**1:21**	**1:38**
12:56	**1:10**	**1:37**	**1:21**	**1:46**	**1:59**
1:21	**1:35**	**2:01**	**1:46**	**2:11**	**2:24**
1:46	**1:59**	**2:25**	**2:09**	**2:34**	**2:47**
2:09	**2:22**	**2:48**	**2:32**	**2:57**	**3:10**
2:32	**2:45**	**3:11**	**2:55**	**3:20**	**3:34**
2:55	**3:08**	**3:34**	**3:17**	**3:40**	**3:53**
3:17	**3:30**	**3:56**	**3:39**	**4:02**	**4:15**
3:39	**3:52**	**4:18**	**4:01**	**4:24**	**4:37**
4:01	**4:14**	**4:40**	**4:23**	**4:46**	**4:59**
4:23	**4:36**	**5:02**	**4:45**	**5:08**	**5:21**
4:45	**4:58**	**5:24**	**5:07**	**5:30**	**5:42**
5:07	**5:20**	**5:43**	**5:29**	**5:49**	**6:01**
5:30	**5:42**	**6:03**	**5:51**	**6:11**	**6:23**
5:53	**6:05**	**6:26**	**6:13**	**6:33**	**6:45**
6:15	**6:27**	**6:48**	**6:35**	**6:55**	**7:07**
6:37	**6:49**	**7:10**	**6:57**	**7:17**	**7:29**
7:07	**7:19**	**7:40**	**7:19**	**7:39**	**7:51**
7:37	**7:48**	**8:08**	**7:49**	**8:09**	**8:21**
8:07	**8:18**	**8:38**	**8:19**	**8:38**	**8:48**
8:37	**8:48**	**9:08**	**8:49**	**9:07**	**9:17**
9:07	**9:18**	**9:34**	**9:19**	**9:37**	**9:47**
9:37	**9:47**	**10:03**	**9:49**	**10:07**	**10:17**
a 10:20	**10:30**	**10:45**	**a 10:50**	**11:04**	**11:15**
a 11:20	**11:30**	**11:45**	**a 11:50**	12:04A	12:15A
a 12:20A	12:30A	12:45A	a 12:50A	1:05	1:14

5 Weekday & Saturday

No Service on Sunday

Inbound			Outbound		
Leave City Point	Arrive Andrew Station	Arrive McCormack Housing	Leave McCormack Housing	Arrive Andrew Station	Arrive City Point
c 9:00A	9:11A	9:13A	9:30A	9:36A	9:49A
10:00	10:11	10:14	10:30	10:38	10:52
11:00	11:14	11:17	11:30	11:38	11:54
12:00N	**12:14P**	**12:18P**	**12:30P**	**12:38P**	**12:53P**
1:00P	**1:14**	**1:18**	**1:30**	**1:38**	**1:53**
2:00	**2:14**	**2:18**	**2:30**	**2:39**	**2:53**
3:00	**3:13**	**3:18**			

c - Runs on weekdays only

Note: All outbound trips serve JFK/UMass Station

10 Sunday

Inbound			Outbound		
Leave City Point	Arrive Andrew Station	Arrive St. James Dartmouth	Leave St. James Dartmouth	Arrive Andrew Station	Arrive City Point
a 6:00A	6:09A	6:23A	a 6:28A	6:42A	6:50A
a 6:55	7:04	7:18	a 7:23	7:37	7:45
a 7:50	7:59	8:13	a 8:18	8:32	8:42
a 8:48	8:59	9:15	a 9:18	9:34	9:44
a 9:48	9:59	10:17	a 10:20	10:36	10:46
a 10:48	11:01	11:19	a 11:22	11:39	11:52
a 11:48	**12:01P**	**12:21P**			
			12:28P	**12:50P**	**1:02P**
12:30P	**12:40P**	**1:05P**	**1:10**	**1:32**	**1:44**
1:10	**1:20**	**1:46**	**1:50**	**2:12**	**2:24**
1:45	**1:57**	**2:22**	**2:30**	**2:54**	**3:06**
2:25	**2:37**	**3:02**	**3:10**	**3:34**	**3:46**
3:05	**3:17**	**3:42**	**3:50**	**4:13**	**4:25**
3:50	**4:02**	**4:28**	**4:30**	**4:53**	**5:05**
4:30	**4:42**	**5:06**	**5:10**	**5:33**	**5:45**
5:10	**5:22**	**5:45**	**5:50**	**6:11**	**6:23**
5:50	**6:01**	**6:24**	**6:30**	**6:51**	**7:03**
6:30	**6:41**	**7:02**	**7:10**	**7:28**	**7:38**
7:10	**7:21**	**7:40**	**7:50**	**8:08**	**8:18**
7:50	**8:01**	**8:20**	**a 8:45**	**8:59**	**9:08**
8:30	**8:41**	**9:00**	**a 9:45**	**9:59**	**10:08**
a 9:15	**9:25**	**9:39**	**a 10:45**	**10:59**	**11:08**
a 10:15	**10:25**	**10:38**	**a 11:45**	**11:59**	12:08A
a 11:15	**11:25**	**11:38**	aw 12:45A	1:02A	1:11
a 12:15A	12:25A	12:38A			

Route 5
City Point-
McCormack Housing

Route 10
City Point-
Copley Square

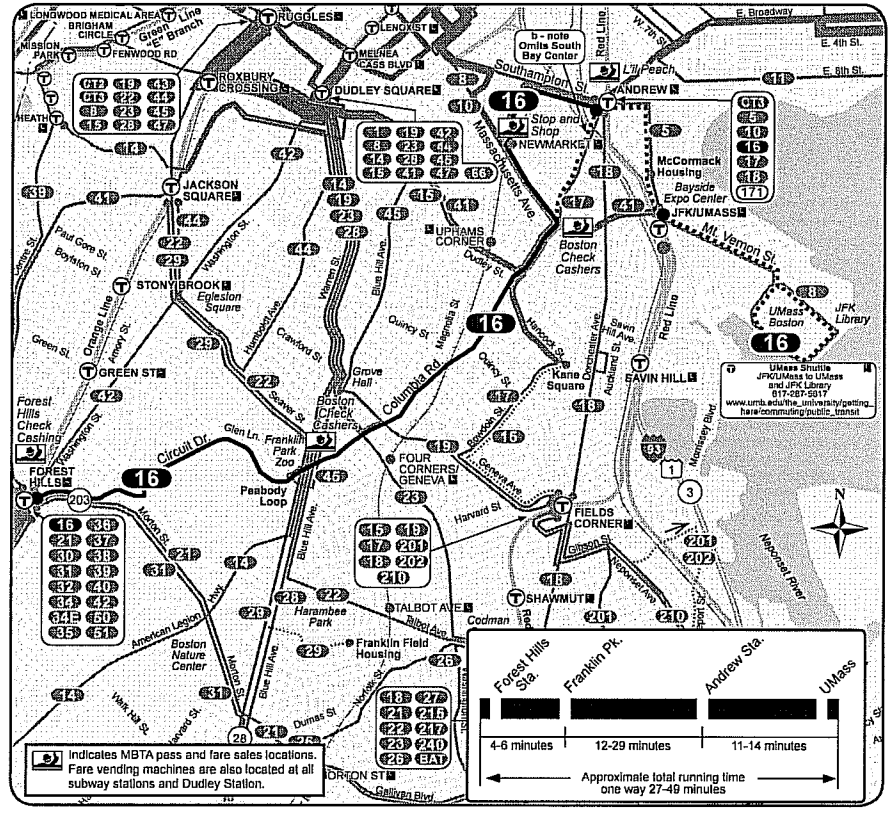
All buses are accessible to persons with disabilities

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75
Cash-on-Board	$2.10	$4.20	$2.65	$4.75
Student CharlieCard*	$0.80	$0.80	$1.05	$1.05
Senior/TAP CharlieCard**	$0.80	$0.80	$1.05	$1.05

VALID PASSES: LinkPass ($75/mo.); Monthly Local Bus ($50/mo.); *StudentPass ($76.00/Month for 5-Day validity Mon-Fri or 7-Day validity on all days); **Senior/TAP Pass ($29/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard, available to students through participating middle schools and high schools.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Spring 2015 Holidays
April 20: see Weekday May 25: see Sunday

Route 16 Forest Hills Station - Andrew Station or UMass



16

Spring March 21, 2015 - June 19, 2015

Forest Hills Station- Andrew Station or UMass

Serving

- JFK/UMass Station
- Bayside Exposition Center
- Uphams Corner Station
- South Bay Center
- Franklin Park Zoo
- West Roxbury Courthouse
- Red Line
- Orange Line



Massachusetts Bay Transportation Authority

massDOT

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

16 Weekday

Inbound				Outbound			
Leave Forest Hills Lower Busway	Arrive Uphams Corner	Arrive Andrew Station	Arrive UMass	Leave UMass	Lv/Arrive Andrew Station	Arrive Uphams Corner	Arrive Forest Hills
b 5:00A	5:13A	5:21A	.....	.....	b 5:06A	5:09A	5:22A
b 5:20	5:33	5:41	.....	.....	b 5:20	5:23	5:36
b 5:40	5:53	6:01	.....	.....	b 5:40	5:43	5:56
b 6:00	6:13	6:21	.....	.....	b 5:50	5:53	6:08
b 6:15	6:28	6:39	.....	.....	b 6:00	6:04	6:21
6:30	6:46	6:59	7:08A	.....	b 6:10	6:15	6:33
b 6:45	7:02	7:15	7:23	.....	b 6:20	6:24	6:41
b 7:02	7:19	7:32	7:40	.....	b 6:27	6:32	6:50
bfs 7:18	7:29	7:40	.....	.....	b 6:35	6:39	6:56
b 7:19	7:38	7:53	8:01	.....	b 6:42	6:47	7:07
b 7:36	7:56	8:10	8:18	.....	b 6:50	6:54	7:12
b 7:53	8:13	8:27	8:36	b 6:45A	6:57	7:05	7:25
b 8:10	8:30	8:43	8:52	b 7:00	7:12	7:20	7:39
b 8:27	8:46	8:59	9:07	.....	b 7:17	7:24	7:41
b 8:44	9:03	9:13	9:21	b 7:17	7:29	7:39	7:59
b 9:00	9:17	9:27	9:35	b 7:34	7:49	7:59	8:19
b 9:15	9:32	9:42	9:50	b 7:51	8:06	8:16	8:36
9:35	9:52	10:03	.....	b 8:08	8:23	8:33	8:49
10:05	10:22	10:33	.....	b 8:25	8:39	8:48	9:04
10:35	10:52	11:03	.....	b 8:42	8:56	9:05	9:21
11:05	11:22	11:33	.....	b 8:59	9:13	9:22	9:38
11:35	11:52	**12:03P**	.....	b 9:15	9:29	9:38	9:54
				b 9:30	9:44	9:53	10:07
12:05P	**12:22P**	**12:33P**	.....	10:00	10:12	10:28	10:46
12:35	**12:52**	**1:03**	.....	.....	10:45	10:58	11:14
1:05	**1:24**	**1:35**	.....	.....	11:15	11:30	11:46
1:35	**1:54**	**2:05**	.....	.....	11:45	**12:00N**	**12:16P**
s 2:05	2:23	2:34	2:44P				
2:20	**2:38**	**2:50**	.....	.....	**12:15P**	**12:30P**	**12:46P**
s 2:35	2:55	3:08	3:25	.....	**12:45**	**1:00**	**1:16**
3:00	**3:19**	**3:32**	**3:49**	.....	b 1:13	1:19	1:41
3:30	**3:49**	**4:02**	**4:14**	.....	1:20	1:35	1:51
3:50	**4:10**	**4:23**	**4:35**	.....	1:50	2:06	2:25
4:10	**4:31**	**4:44**	**4:56**	.....	s 2:05	2:21	2:40
4:30	**4:51**	**5:06**	**5:17**	.....	2:20	2:36	2:55
4:55	**5:15**	**5:30**	**5:41**	.....	s 2:35	2:51	3:12
5:20	**5:40**	**5:55**	**6:06**	.....	2:50	3:07	3:32
5:45	**6:05**	**6:20**	**6:31**	.....	s 3:00	3:18	3:43
6:00	**6:19**	**6:30**	.....	.....	3:10	3:28	3:53
6:20	**6:37**	**6:48**	.....	.....	3:30	3:48	4:08
6:40	**6:57**	**7:08**	.....	.....	b 3:42	3:49	4:15
b 6:50	7:04	7:10	.....	.....	b 3:56	4:03	4:30
7:10	**7:25**	**7:34**	.....	3:54P	4:07	4:27	4:45
7:35	**7:50**	**7:59**	.....	.....	b 4:15	4:22	4:49
8:00	**8:14**	**8:23**	.....	4:14	4:27	4:47	5:10
8:20	**8:34**	**8:43**	.....	4:34	4:47	5:07	5:35
8:40	**8:54**	**9:03**	.....	4:54	5:07	5:25	5:53
b 8:50	9:02	9:08	.....	5:14	5:26	5:44	6:10
9:05	**9:18**	**9:27**	.....	5:34	5:46	6:04	6:25
b 9:15	9:27	9:33	.....	5:54	6:06	6:23	6:44
9:30	**9:43**	**9:52**	.....	6:14	6:26	6:43	7:04
10:00	**10:13**	**10:22**	.....	.....	6:33	6:47	7:04
b 10:25	10:37	10:46	.....	.....	6:56	7:10	7:27
b 11:15	11:27	11:36	.....	.....	7:19	7:32	7:46
b 12:05A	12:14A	12:21A	.....	.....	7:42	7:54	8:08
b 12:55	1:04	1:11	.....	.....	8:05	8:17	8:31
bw 1:30	1:39	1:46	.....	.....	8:30	8:42	8:56
				.....	9:00	9:12	9:26
				.....	9:30	9:42	9:56
				.....	10:00	10:09	10:24
				.....	b 10:50	11:00	11:11
				.....	b 11:40	11:43	11:54
				.....	b 12:30A	12:33A	12:44A
				.....	bw 1:15	1:18	1:29

16 Saturday

Inbound			Outbound		
Leave Forest Hills Lower Busway	Arrive Uphams Corner	Arrive Andrew Station	Leave Andrew Station	Arrive Uphams Corner	Arrive Forest Hills
b 5:05A	5:16A	5:22A	b 4:47A	4:50A	5:01A
b 5:50	6:01	6:07	b 5:30	5:33	5:44
b 6:35	6:46	6:52	b 6:15	6:18	6:29
b 7:20	7:34	7:40	b 7:00	7:04	7:17
b 8:05	8:19	8:27	b 7:45	7:49	8:02
b 8:45	8:59	9:07	b 8:25	8:29	8:42
b 9:15	9:29	9:40	b 9:00	9:04	9:17
9:45	10:00	10:11	b 9:30	9:40	9:56
10:15	10:30	10:41	10:00	10:12	10:28
10:45	11:00	11:11	10:30	10:42	10:58
11:15	11:30	11:41	11:00	11:12	11:28
11:45	**12:00N**	**12:13P**	11:30	11:45	**12:02P**
12:15P	**12:32P**	**12:45P**	**12:00N**	**12:15P**	**12:32P**
12:45	**1:02**	**1:15**	**12:30P**	**12:46**	**1:03**
1:15	**1:32**	**1:45**	**1:00**	**1:16**	**1:33**
1:45	**2:02**	**2:14**	**1:30**	**1:46**	**2:03**
2:15	**2:31**	**2:43**	**2:00**	**2:16**	**2:33**
2:45	**3:01**	**3:13**	**2:30**	**2:46**	**3:03**
3:15	**3:31**	**3:44**	**3:00**	**3:16**	**3:33**
3:45	**4:02**	**4:15**	**3:30**	**3:48**	**4:09**
4:15	**4:31**	**4:44**	**4:00**	**4:18**	**4:39**
4:45	**5:00**	**5:13**	**4:30**	**4:46**	**5:04**
5:15	**5:30**	**5:42**	**5:00**	**5:16**	**5:34**
5:45	**5:59**	**6:11**	**5:30**	**5:46**	**6:04**
6:15	**6:29**	**6:40**	**6:00**	**6:16**	**6:34**
6:45	**7:01**	**7:12**	**6:30**	**6:46**	**7:03**
7:15	**7:29**	**7:40**	**7:05**	**7:17**	**7:33**
7:45	**7:59**	**8:10**	**7:45**	**7:57**	**8:13**
8:20	**8:34**	**8:45**	**8:20**	**8:32**	**8:48**
9:30	**9:44**	**9:55**	**8:55**	**9:07**	**9:23**
10:40	**10:54**	**11:05**	**10:05**	**10:17**	**10:33**
b 11:40	11:52	11:58	b 11:15	11:24	11:37
b 12:30A	12:42A	12:48A	b 12:05A	12:09A	12:20A
b 1:20	1:32	1:38	b 1:00	1:04	1:15

b - Omits South Bay Center
f - From Franklin Park
s - Does NOT run during school vacation
w - Waits for last train to arrive at station. Sunday through Thursday only. Friday & Saturday leaves at scheduled time.

Spring 2015 Holidays
April 20: see Weekday May 25: see Sunday

Route 16
Forest Hills-Andrew Station or UMass

16 Sunday

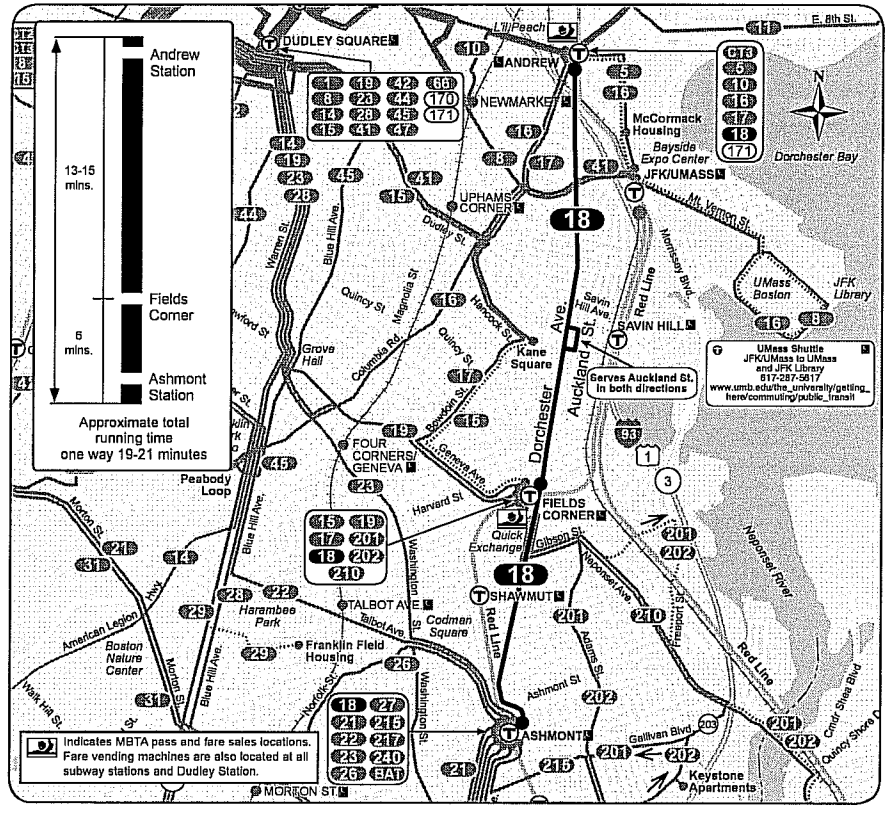
Inbound			Outbound		
Leave Forest Hills Lower Busway	Arrive Uphams Corner	Arrive Andrew Station	Leave Andrew Station	Arrive Uphams Corner	Arrive Forest Hills
b 7:05A	7:17A	7:24A	b 6:40A	6:45A	6:58A
b 7:55	8:07	8:14	b 7:30	7:35	7:48
b 8:45	8:59	9:09	b 8:20	8:25	8:39
9:40	9:53	10:03	9:10	9:19	9:35
10:15	10:28	10:38	10:10	10:19	10:36
10:50	11:04	11:15	10:50	11:01	11:18
11:30	11:44	11:56	11:25	11:37	11:54
12:05P	**12:19P**	**12:31P**	**12:00N**	**12:12P**	**12:29P**
12:40	**12:54**	**1:06**	**12:35P**	**12:48**	**1:07**
1:15	**1:29**	**1:42**	**1:10**	**1:23**	**1:42**
1:50	**2:04**	**2:17**	**1:45**	**1:58**	**2:16**
2:25	**2:39**	**2:52**	**2:20**	**2:34**	**2:52**
3:00	**3:14**	**3:27**	**2:55**	**3:09**	**3:27**
3:35	**3:49**	**4:02**	**3:30**	**3:44**	**4:02**
4:10	**4:24**	**4:37**	**4:05**	**4:20**	**4:37**
4:45	**4:59**	**5:12**	**4:45**	**5:00**	**5:19**
5:25	**5:39**	**5:51**	**5:20**	**5:34**	**5:53**
6:05	**6:19**	**6:31**	**6:00**	**6:14**	**6:28**
6:45	**7:01**	**7:12**	**6:40**	**6:54**	**7:08**
7:25	**7:39**	**7:50**	b 7:20	**7:27**	**7:43**
b 8:25	8:37	8:44	b 8:00	8:07	8:23
b 9:15	9:27	9:34	b 8:50	8:54	9:07
b 10:05	10:17	10:24	b 9:40	9:44	9:57
b 10:55	11:06	11:13	b 10:30	10:34	10:47
b 11:45	11:56	12:03A	b 11:20	11:24	11:36
b 12:30A	12:41A	12:48	b 12:10A	12:14A	12:26A
bw 1:10	1:21	1:28	bw 12:50	12:54	1:06

All buses are accessible to persons with disabilities

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75
Cash-on-Board	$2.10	$4.20	$2.65	$4.75
Student CharlieCard*	$0.80	$0.80	$1.05	$1.05
Senior/TAP CharlieCard**	$0.80	$0.80	$1.05	$1.05

VALID PASSES: LinkPass ($75/mo.); Monthly Local Bus ($50/mo.); *StudentPass ($26.00/Month for 5-Day validity Mon-Fri or 7-Day validity on all days); **Senior/TAP Pass ($29/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard, available to students through participating middle schools and high schools.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

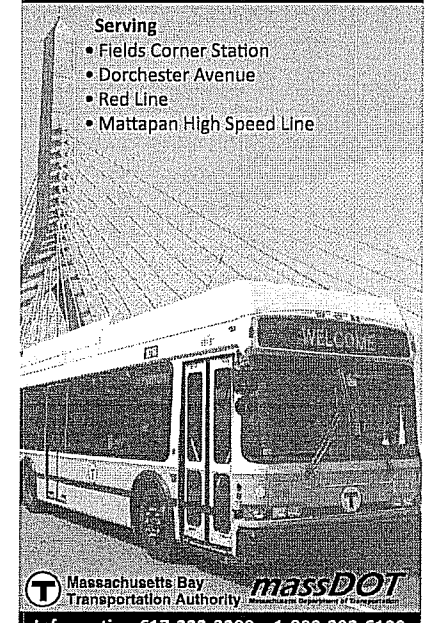
Route 18 Ashmont Station - Andrew Station



18

Spring March 21, 2015 - June 19, 2015

Ashmont Station- Andrew Station



Serving

- Fields Corner Station
- Dorchester Avenue
- Red Line
- Mattapan High Speed Line

Massachusetts Bay Transportation Authority

massDOT

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

18 Weekday

Inbound			Outbound		
Leave Ashmont Station	Arrive Fields Corner	Arrive Andrew Station	Leave Andrew Station	Arrive Fields Corner	Arrive Ashmont Station
a 4:38A	4:42A	.....	6:05	6:13	6:20
6:30	6:37	6:55	6:35	6:46	6:51
7:00	7:05	7:26	7:05	7:18	7:24
7:30	7:35	8:03	7:35	7:48	7:54
8:00	8:05	8:32	8:05	8:18	8:24
8:30	8:36	8:57	8:35	8:47	8:53
9:00	9:06	9:27	9:05	9:19	9:26
9:30	9:36	9:56	10:05	10:19	10:26
10:30	10:35	10:54	11:05	11:19	11:26
11:30	11:35	11:54			
12:30P	12:35P	12:54P	12:05P	12:19P	12:26P
1:30	1:35	1:54	1:05	1:19	1:26
2:30	2:36	2:59	2:05	2:20	2:28
3:30	3:36	3:59	3:05	3:22	3:32
4:05	4:11	4:31	4:05	4:25	4:33
4:40	4:45	5:05	4:40	5:00	5:08
5:20	5:25	5:45	5:15	5:35	5:43
6:25	6:30	6:50	5:55	6:13	6:20

a - Through serice to downtown Boston (operates as Route 15).

18 Saturday

Inbound			Outbound		
Leave Ashmont Station	Arrive Fields Corner	Arrive Andrew Station	Leave Andrew Station	Arrive Fields Corner	Arrive Ashmont Station
a 4:34A	4:36A	.....	9:00A	9:12A	9:16A
9:30A	9:35A	9:53A	10:00	10:16	10:22
10:30	10:35	10:55	11:00	11:17	11:23
11:30	11:35	11:55			
12:30P	12:35P	12:57P	12:00N	12:17P	12:25P
1:30	1:35	1:56	1:00P	1:17	1:25
2:30	2:35	2:54	2:00	2:14	2:22
3:30	3:35	3:54	3:00	3:14	3:22
4:30	4:35	4:53	4:00	4:14	4:22
5:30	5:35	5:53	5:00	5:13	5:20
6:25	6:30	6:46	6:00	6:13	6:20

No service on Sunday

All buses are accessible to persons with disabilities

Route 18
Ashmont Station-Andrew Station

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75
Cash-on-Board	$2.10	$4.20	$2.65	$4.75
Student CharlieCard*	$0.80	$0.80	$1.05	$1.05
Senior/TAP CharlieCard**	$0.80	$0.80	$1.05	$1.05

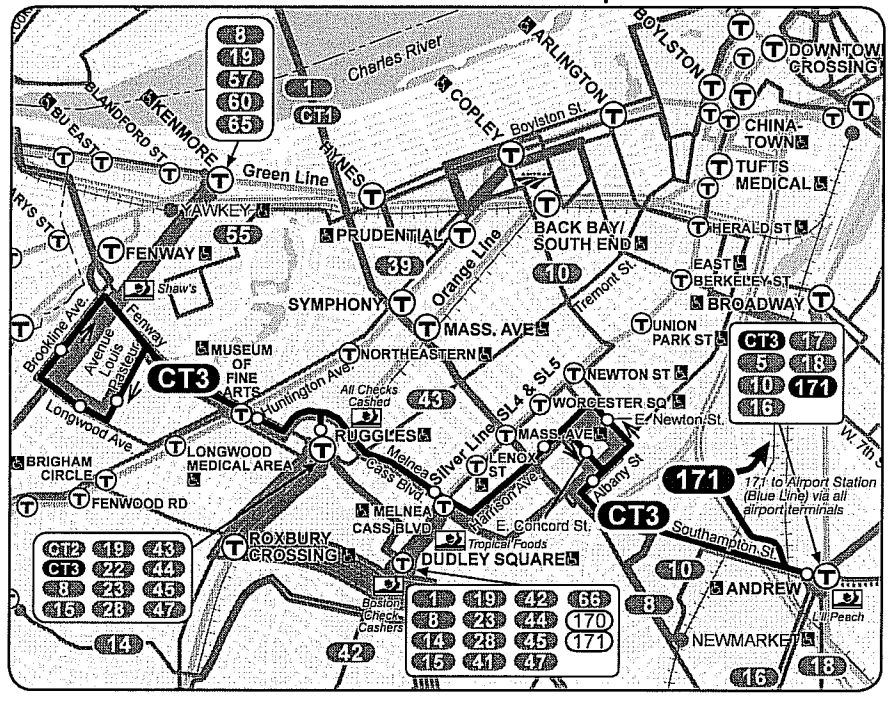
VALID PASSES: LinkPass ($75/mo.); Monthly Local Bus ($50/mo.); *StudentPass ($26.00/Month for 5-Day validity Mon-Fri or 7-Day validity on all days); **Senior/TAP Pass ($29/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.

* Requires Student CharlieCard, available to students through participating middle schools and high schools.

** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

Spring 2015 Holidays
April 20: see Weekday May 25: see Sunday

Route CT3 Beth Israel Med Ctr. or BU Med Campus - Andrew Station



Indicates MBTA pass and fare sales locations. Fare vending machines are also located at all subway stations and Dudley Station.

N

This route will discharge and pickup passengers at these stops only

CT3•171

Spring March 21, 2015 - June 19, 2015

CT3 Beth Israel Deaconess or BU Medical Campus-Andrew Station

171 Dudley Station-Logan Airport

Serving
- Children's Hospital
- Wentworth Institute
- Museum of Fine Arts
- Ruggles Station
- Symphony Hall
- Hynes Convention Center
- Red Line
- Orange Line
- Green Line



Massachusetts Bay Transportation Authority massDOT

Information 617-222-3200 • 1-800-392-6100
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CT3 Weekday Inbound

Leave Avenue Louis Pasteur	Arrive Children's Hospital	Lv/Arrive Beth Israel Hospital	Arrive Ruggles/ Huntington	Arrive Ruggles Station	Arrive Washington Street	Lv/Arrive BU Med Campus & BMC	Arrive 1010 Mass. Ave.	Arrive Andrew Station
.....	.....	a 6:45A	6:48A	6:51A	6:54A	6:58A	7:03A	7:08A
.....	.....	a 7:05	7:08	7:11	7:14	7:18	7:23	7:28
.....	.....	a 7:25	7:28	7:30	7:35	7:39	7:45	7:49
.....	.....	a 7:45	7:51	7:53	7:58	8:02	8:08	8:12
.....	.....	a 8:05	8:11	8:13	8:18	8:22	8:28	8:34
.....	.....	a 8:25	8:30	8:33	8:36	8:42	8:47	8:53
.....	.....	a 8:45	8:48	8:51	8:54	9:00	9:05	9:11
.....	.....	a 9:05	9:08	9:11	9:14	9:20	9:25	9:31
.....	.....	a 9:25	9:28	9:31	9:34	9:40	9:45	9:51
.....	.....	a 9:55	9:58	10:01	10:04	10:10	10:15	10:21
.....	.....	a 10:55	10:58	11:02	11:05	11:09	11:16	11:23
.....	.....	a 11:55	11:58	**12:02P**	**12:05P**	**12:09P**	**12:16P**	**12:23P**
.....	.....	**a 12:55P**	**12:58P**	**1:01P**	**1:05P**	**1:08P**	**1:15P**	**1:21P**
.....	.....	**a 1:55**	**1:59**	**2:03**	**2:07**	**2:12**	**2:19**	**2:26**
2:25P	**2:28P**	**2:30**	**2:36**	**2:38**	**2:46**	**2:50**	.....	**2:59**
.....	.....	.....	.....	.....	.....	**3:06**	.....	**3:16**
2:50	**2:53**	**2:55**	**3:01**	**3:03**	**3:11**	**3:15**	.....	**3:24**
.....	.....	.....	.....	.....	.....	**3:26**	.....	**3:36**
3:15	**3:18**	**3:20**	**3:26**	**3:28**	**3:36**	**3:40**	.....	**3:49**
.....	.....	.....	.....	.....	.....	**3:46**	.....	**3:56**
3:40	**3:43**	**3:45**	**3:51**	**3:53**	**4:01**	**4:05**	.....	**4:14**
.....	.....	.....	.....	.....	.....	**4:06**	.....	**4:16**
.....	.....	.....	.....	.....	.....	**4:26**	.....	**4:35**
4:05	**4:08**	**4:10**	**4:16**	**4:18**	**4:26**	**4:30**	.....	**4:43**
.....	.....	.....	.....	.....	.....	**4:46**	.....	**4:54**
4:30	**4:34**	**4:36**	**4:42**	**4:44**	**4:51**	**4:54**	.....	**5:07**
.....	.....	.....	.....	.....	.....	**5:06**	.....	**5:15**
4:55	**4:59**	**5:01**	**5:07**	**5:09**	**5:16**	**5:19**	.....	**5:30**
.....	.....	.....	.....	.....	.....	**5:26**	.....	**5:34**
.....	.....	.....	.....	.....	.....	**5:46**	.....	**5:53**
5:20	**5:24**	**5:26**	**5:33**	**5:35**	**5:40**	**5:48**	.....	**5:53**
5:45	**5:47**	**5:49**	**5:56**	**5:58**	**6:03**	**6:11**	.....	**6:16**
6:10	**6:12**	**6:14**	**6:21**	**6:23**	**6:28**	**6:36**	.....	**6:41**
6:45	**6:47**	**6:49**	**6:56**	**6:58**	**7:04**	**7:07**	.....	**7:15**
7:20	**7:21**	**7:22**	**7:27**	**7:31**	**7:37**	**7:40**	.....	**7:48**
8:15	**8:16**	**8:17**	**8:21**	**8:22**	**8:27**	**8:30**	.....	**8:36**

CT3 Weekday Outbound

Leave Andrew Station	Arrive 1010 Mass. Ave.	Arrive BU Med Campus & BMC	Arrive Washington Street	Arrive Ruggles Station	Arrive Ruggles/ Huntington	Arrive Avenue Louis Pasteur	Arrive Children's Hospital	Arrive Beth Israel Hospital
6:05A	.....	6:11A	.....	.....	.....	.....	.....	.....
6:15	.....	6:20	6:23A	6:27A	6:29A	6:32A	6:34A	6:35A
6:25	.....	6:32	.....	.....	.....	.....	.....	.....
6:35	.....	6:42	6:46	6:50	6:53	6:56	6:58	6:59
6:45	.....	6:53	.....	.....	.....	.....	.....	.....
6:55	.....	7:02	7:06	7:10	7:13	7:16	7:18	7:19
7:05	.....	7:13	.....	.....	.....	.....	.....	.....
7:15	.....	7:22	7:26	7:30	7:32	7:35	7:38	7:41
7:25	.....	7:34	.....	.....	.....	.....	.....	.....
7:35	.....	7:42	7:48	7:52	7:54	7:57	8:00	8:03
7:45	.....	7:54	.....	.....	.....	.....	.....	.....
7:55	.....	8:02	8:08	8:12	8:14	8:17	8:20	8:23
8:05	.....	8:14	.....	.....	.....	.....	.....	.....
8:15	.....	8:22	8:28	8:32	8:34	8:37	8:40	8:43
8:25	.....	8:34	.....	.....	.....	.....	.....	.....
8:35	.....	8:42	8:48	8:52	8:54	8:57	9:00	9:03
8:45	.....	8:54	.....	.....	.....	.....	.....	.....
8:55	.....	9:02	9:08	9:12	9:14	9:17	9:20	9:23
9:25	.....	9:32	9:38	9:42	9:44	9:47	9:50	9:53
10:25	.....	10:32	10:38	10:42	10:44	10:47	10:50	10:53
11:25	.....	11:32	11:39	11:42	11:44	11:46	11:49	11:52
12:25P	.....	**12:32P**	**12:37P**	**12:40P**	**12:42P**	**12:44P**	**12:47P**	**12:50P**
1:25	.....	**1:32**	**1:37**	**1:40**	**1:42**	**1:44**	**1:47**	**1:50**
a 1:55	**1:59**	**2:04**	**2:11**	**2:14**	**2:18**	**2:22**	.....	.....
a 2:20	**2:24**	**2:29**	**2:36**	**2:39**	**2:43**	**2:47**	.....	.....
a 2:45	**2:49**	**2:54**	**3:01**	**3:04**	**3:08**	**3:12**	.....	.....
a 3:10	**3:14**	**3:19**	**3:26**	**3:29**	**3:33**	**3:37**	.....	.....
a 3:35	**3:39**	**3:44**	**3:51**	**3:54**	**3:58**	**4:02**	.....	.....
a 4:00	**4:04**	**4:09**	**4:16**	**4:19**	**4:23**	**4:27**	.....	.....
a 4:25	**4:29**	**4:34**	**4:41**	**4:44**	**4:48**	**4:52**	.....	.....
a 4:50	**4:54**	**4:59**	**5:06**	**5:09**	**5:13**	**5:17**	.....	.....
a 5:15	**5:19**	**5:24**	**5:30**	**5:36**	**5:38**	**5:41**	.....	.....
a 5:40	**5:44**	**5:49**	**5:53**	**5:59**	**6:01**	**6:04**	.....	.....
a 6:15	**6:19**	**6:24**	**6:28**	**6:34**	**6:36**	**6:39**	.....	.....
a 6:50	**6:54**	**6:59**	**7:02**	**7:06**	**7:09**	**7:12**	.....	.....
a 7:50	**7:54**	**7:57**	**8:00**	**8:04**	**8:07**	**8:10**	.....	.....

Route CT3
Beth Israel Deaconesss Hospital-Andrew Station

No service on weekends and most Holidays.

Spring 2015
Holidays without service:
May 25 - Memorial Day

Fare	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75
Cash-on-Board	$2.10	$4.20	$2.65	$4.75
Student CharlieCard*	$0.80	$0.80	$1.05	$1.05
Senior/TAP CharlieCard**	$0.80	$0.80	$1.05	$1.05

a - Services 1010 Massachusetts Avenue.

Stops listed are the ONLY ones this route will serve.

VALID PASSES: LinkPass ($75/mo.); Monthly Local Bus ($50/mo.); *StudentPass ($26.00/Month for 5-Day validity Mon-Fri or 7-Day validity on all days); **Senior/TAP Pass ($29/mo.); and express bus, commuter rail, and boat passes.
FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free and if using a guide, the guide rides free.
* Requires Student CharlieCard, available to students through participating middle schools and high schools.
** Requires Senior/TAP CharlieCard, available to Medicare cardholders, seniors 65+, and persons with disabilities.

All buses are accessible to persons with disabilities

Route 171

Dudley Station-Airport Station with stops at Andrew Station and Airport Terminals

Leaves Dudley Station 3:50 am & 4:20 am on Weekdays, Saturdays, Sundays and all Holidays

Fares

PRICE PER TRIP	Local Bus	Bus + Bus	Rapid Transit	Bus + Rapid Transit
CharlieCard	$1.60	$1.60	$2.10	$2.10
CharlieTicket	$2.10	$2.10	$2.65	$4.75***
Cash-on-Board	$2.10	$4.20	$2.65	$4.75***
Student*	$0.80	$0.80	$1.05	$1.05
Senior/TAP**	$0.80	$0.80	$1.05	$1.05
UNLIMITED TRIP PASSES				
1-Day	$12.00	$12.00	$12.00	$12.00
7-Day	$19.00	$19.00	$19.00	$19.00
Monthly	$50.00	$50.00	$75.00	$75.00
Senior/TAP Monthly	$29.00/month for unlimited travel on Local Bus and Rapid Transit			

VALID PASSES: LinkPass ($75/mo.); StudentPass* ($26/Month for 5-Day validity Mon. - Fri. or 7 day validity on all days); Senior/TAP Pass* ($29/mo.); and express bus, commuter rail, and boat passes.

FREE FARES: Children 11 and under ride free when accompanied by an adult; Blind Access CharlieCard holders ride free: if using a guide, the guide rides free

* Available to students through participating middle schools and high schools.

** Available to Medicare cardholders, seniors 65+, and persons with disabilities.

*** For Silver Line SL4 or SL5 pay $2.65. Also see "transfers."

TRANSFERS

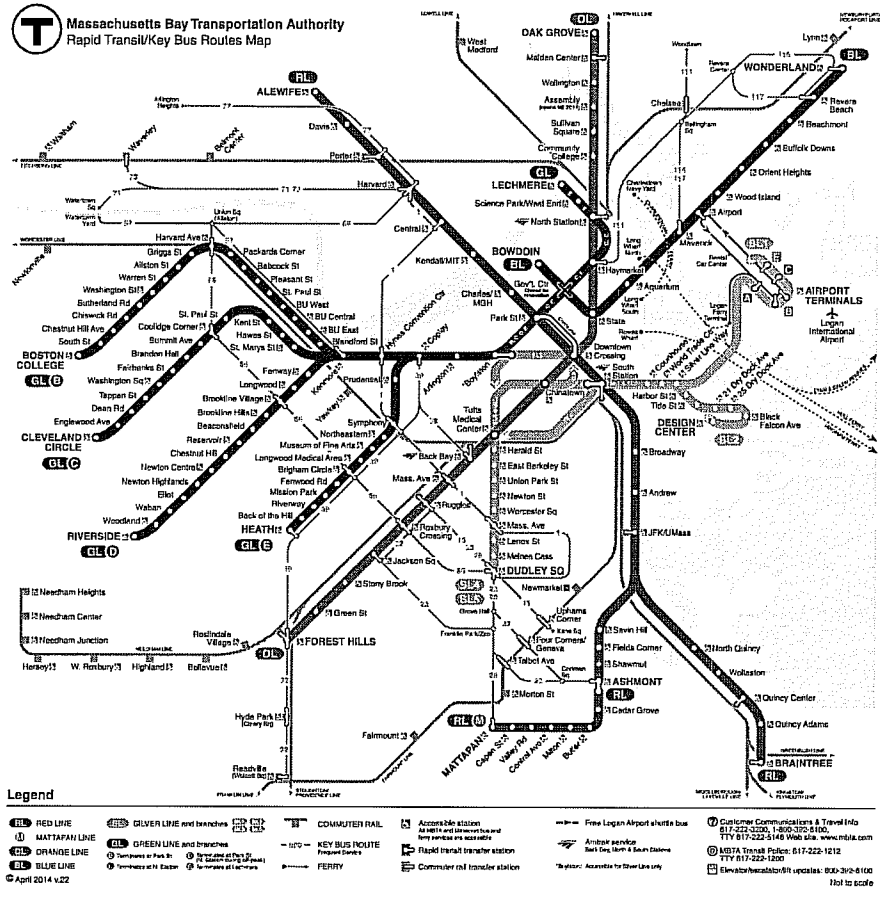
If paying with a CharlieTicket or CharlieCard, discounted transfers that are available are automatic — just use the same ticket or card throughout your trip. If paying with cash onboard a vehicle, free transfers are only allowed between rapid transit lines, and in either of the following cases you must ask for a transfer ticket from the operator before paying your fare:

- Boarding Silver Line SL4 or SL5 and transferring to other rapid transit.
- Boarding at a farebox aboard the Green Line or Silver Lines and transferring to Silver Line SL4 or SL5 later in your trip.

Free transfers between the Mattapan High Speed Line and the Red Line at Ashmont.

SCHEDULES

Schedules are available at the following stations: Park Street, Airport, Malden, Harvard, Government Center (Green Line Level), Back Bay, Downtown Crossing (Orange Line Level), and Quincy Center, or ask a Customer Service Agent. Schedules are also available at Boston City Hall, the State Transportation Building Library (10 Park Plaza), 45 High St, and online at mbta.com.

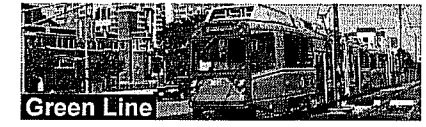


schedule change

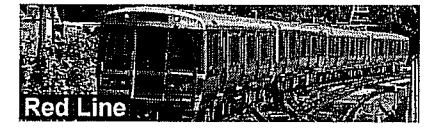
Rapid Transit

Summer June 27, 2015 - September 4, 2015











Massachusetts Bay Transportation Authority

massDOT Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

Weekday

Rapid Transit Line	First Trip	Rush Hour Service	Midday Service	Evening Service	Late Night Service	Last Trip Monday-Thursday	Last Trip Friday
Red Line							
Alewife	5:24AM	9 min	14 min	12 min	12 min	12:15AM	w 1:38AM
Braintree	5:15AM	9 min	14 min	12 min	12 min	12:18AM	1:29AM
Alewife	5:16AM	9 min	14 min	12 min	12 min	w12:22AM	w 1:49AM
Ashmont	5:16AM	9 min	14 min	12 min	12 min	w12:30AM	w 1:46AM
"M" Ashmont	5:17AM	5 min	8 min	12 min	12 min	w1:05AM	w 2:20AM
Mattapan	5:05AM	5 min	8 min	12 min	12 min	12:53AM	2:08AM
Blue Line							
Wonderland	5:13AM	5 min	9 min	9 min	10 min	12:35AM	1:40AM
Orient Heights	5:13AM	5 min	9 min	9 min	10 min	12:40AM	1:45AM
Bowdoin	5:29AM	5 min	9 min	9 min	10 min	w1:00AM	w 2:05AM
Orange Line							
Oak Grove	5:16AM	6 min	8 min	10 min	10 min	w12:30AM	w 1:49AM
Forest Hills	5:16AM	6 min	8 min	10 min	10 min	w12:35AM	w 1:45AM
Green Line							
"B" Boston College	5:01AM	7 min	8 min	8 min	9 min	12:10AM	1:30AM
Park Street	5:39AM	7 min	8 min	8 min	9 min	w12:52AM	w 2:10AM
"C" Cleveland Circle	5:01AM*	6 min	8 min	7 min	9 min	12:10AM	1:10AM
North Station	5:55AM	6 min	8 min	7 min	9 min	w12:46AM	w 1:46AM
*"D" Riverside	4:56AM	7 min	8 min	8 min	10 min	12:05AM	1:05AM
Park Street*	5:36AM	7 min	8 min	8 min	10 min	w12:49AM	w 1:49AM
"E" Lechmere	5:01AM	6 min	7 min	9 min	9 min	12:30AM	1:59AM
Heath Street	5:30AM	6 min	7 min	9 min	9 min	w12:53AM	2:04AM
Silver Line							
SL1 Logan Airport	5:38AM	*8 min	8 min	8 min	12 min	12:44AM	1:55AM
South Station	5:40AM	*8 min	8 min	8 min	12 min	12:30AM	1:37AM
SL2 Design Center	6:03AM	5 min	10 min	9 min	15 min	12:30AM	12:30AM
South Station	5:45AM	5 min	10 min	9 min	15 min	w12:50AM	12:50AM
Additional Waterfront-only service							
Silver Line Way	5:28AM	5 min	Use SL1/SL2				
South Station	5:35AM	5 min				12:53AM	w 2:00AM
SL4 Dudley Station	5:20AM	10 min	15 min	15 min	20 min	12:20AM	1:30AM
South Station	5:40AM	10 min	15 min	15 min	20 min	12:40AM	1:45AM
SL5 Dudley Station	5:15AM	7 min	10 min	8 min	15 min	12:48AM	1:45AM
Downtown Xing	5:30AM	7 min	10 min	8 min	15 min	w1:02AM	w 2:00AM

Saturday

Rapid Transit Line	First Trip	A.M. Peak Service	P.M. Peak Service	Evening Service	Late Night Service	Last Trip
Red Line						
Alewife	5:24AM	14 min	14 min	14 min	14 min	w 1:38AM
Braintree	5:15AM	14 min	14 min	14 min	14 min	1:29AM
Alewife	5:16AM	14 min	14 min	14 min	14 min	w 1:49AM
Ashmont	5:16AM	14 min	14 min	14 min	14 min	w 1:46AM
"M" Ashmont	5:15AM	26 min	12 min	12 min	26 min	w 2:20AM
Mattapan	5:05AM	26 min	12 min	12 min	26 min	2:08AM
Blue Line						
Wonderland	5:25AM	9 min	9 min	9 min	13 min	1:40AM
Orient Heights	5:13AM	9 min	9 min	9 min	13 min	1:45AM
Bowdoin	5:29AM	9 min	9 min	9 min	13 min	w 2:05AM
Orange Line						
Oak Grove	5:16AM	10 min	8 min	10 min	10 min	w 1:49AM
Forest Hills	5:16AM	10 min	8 min	10 min	10 min	w 1:45AM
Green Line						
"B" Boston College	4:45AM*	7 min	7 min	7 min	11 min	1:30AM
Park Street	5:33AM	7 min	7 min	7 min	11 min	w 2:10AM
"C" Cleveland Circle	4:50AM*	10 min	8 min	8 min	10 min	1:10AM
North Station	5:30AM	10 min	8 min	8 min	10 min	w 1:46AM
*"D" Riverside	4:55AM	10 min	8 min	10 min	10 min	1:05AM
Park Street*	5:39AM	10 min	8 min	10 min	10 min	w 1:49AM
"E" Lechmere	5:01AM	10 min	9 min	10 min	10 min	1:59AM
Heath Street	5:30AM	10 min	9 min	10 min	10 min	2:04AM
Silver Line						
SL1 Logan Airport	5:33AM	12 min	12 min	12 min	12 min	1:55AM
South Station	5:35AM	12 min	12 min	12 min	12 min	1:37AM
SL2 Design Center	6:10AM	15 min	15 min	15 min	15 min	12:35AM
South Station	5:50AM	15 min	15 min	15 min	15 min	12:49AM
Additional Waterfront-only service						
Silver Line Way	5:28AM	Use SL1/SL2				
South Station						w 2:00AM
SL4 Dudley Station	5:23AM	15 min	15 min	15 min	20 min	1:30AM
South Station	5:40AM	15 min	15 min	15 min	20 min	1:45AM
SL5 Dudley Station	5:19AM	10 min	10 min	11 min	11 min	1:45AM
Downtown Xing	5:34AM	10 min	10 min	11 min	11 min	w 2:00AM

Sunday

Rapid Transit Line	First Trip	A.M. Peak Service	P.M. Peak Service	Evening Service	Late Night Service	Last Trip
Red Line						
Alewife	6:08AM	16 min	16 min	16 min	16 min	12:15AM
Braintree	6:00AM	16 min	16 min	16 min	16 min	12:18AM
Alewife	6:00AM	16 min	16 min	16 min	16 min	w12:22AM
Ashmont	6:00AM	16 min	16 min	16 min	16 min	w12:30AM
"M" Ashmont	6:03AM	26 min	12 min	12 min	26 min	w1:05AM
Mattapan	5:51AM	26 min	12 min	12 min	26 min	12:53AM
Blue Line						
Wonderland	5:58AM	13 min	9 min	9 min	13 min	12:26AM
Orient Heights	6:03AM	13 min	9 min	9 min	13 min	12:31AM
Bowdoin	6:21AM	13 min	9 min	9 min	13 min	w1:00AM
Orange Line						
Oak Grove	6:00AM	13 min	10 min	10 min	10 min	w12:30AM
Forest Hills	6:00AM	13 min	10 min	10 min	10 min	w12:35AM
Green Line						
"B" Boston College	5:20AM*	10 min	9 min	7 min	10 min	12:10AM
Park Street	6:06AM	10 min	9 min	7 min	10 min	w12:48AM
"C" Cleveland Circle	5:30AM*	10 min	10 min	10 min	10 min	12:10AM
North Station	6:06AM	10 min	10 min	10 min	10 min	w12:48AM
*"D" Riverside	5:25AM	10 min	10 min	10 min	10 min	12:00AM
Park Street*	6:09AM	10 min	10 min	10 min	10 min	w12:45AM
"E" Lechmere	5:35AM	12 min	12 min	12 min	12 min	12:30AM
Heath Street	6:15AM	12 min	12 min	12 min	12 min	w12:47AM
Silver Line						
SL1 Logan Airport	5:50AM	12 min	8 min	8 min	8 min	12:45AM
South Station	6:12AM	12 min	8 min	8 min	8 min	12:30AM
SL2 Design Center	6:50AM	15 min	15 min	15 min	15 min	12:34AM
South Station	6:35AM	15 min	15 min	15 min	15 min	w12:48AM
Additional Waterfront-only service						
Silver Line Way	6:05AM	Use SL1/SL2				
South Station						1:01AM
SL4 Dudley Station	6:02AM	15 min	15 min	15 min	20 min	12:20AM
South Station	6:20AM	15 min	15 min	15 min	20 min	12:40AM
SL5 Dudley Station	6:00AM	10 min	8 min	9 min	9 min	12:25AM
Downtown Xing	6:15AM	10 min	8 min	9 min	9 min	w12:47AM

Schedule Periods (approximate):

AM Rush Hour: 6:30 AM - 9:00 AM
Midday: 9:00 AM - 3:30 PM
PM Rush Hour: 3:30 PM - 6:30 PM
Evening: 6:30 PM - 8:00 PM
Late Night: 8:00 PM - CLOSE

Government Center:

Due to the closure of Government Center Station, please use Orange Line and Haymarket Station to transfer between Blue and Green Lines. For travel around the Government Center area, walking to/from a nearby station will often be fastest. A shuttle bus (Rt. 608) also operates every 20 minutes from 5:20AM – 1:00AM, starting at Haymarket and serving State, Government Center, and Bowdoin Stations, 7 days a week. Shuttle operates until 2:00AM on Friday/Saturday nights, and begins at 6:00AM on Sundays.

Green Line Notes:

*The first two "C" Line AM inbound trips run through to Lechmere Station on weekdays.

*The first "B" Line and second "C" Line AM inbound trips run through to Lechmere Station on weekends.

*The "D" Line will run to/from North Station off peak, late night and all trips on weekends. Except the last trip on Friday and Saturday will run to/from Park Street Station.

w - Last trips wait at some stations, primarily in the Downtown area, for connecting service. Departure times are approximate.

* Silver Line - For AM rush 8 minutes and for the PM rush 10 minutes.

Summer 2015 Holidays

July 4: see Sunday, with regular late night Saturday service.
September 7: see Sunday

FAIRMOUNT LINE Train Schedule Effective June 29, 2015

Massachusetts Bay Transportation Authority

Keolis

Monday to Friday

Inbound to Boston

ZONE	STATION	TRAIN #	AM								PM															
	Bikes Allowed		790	744	746	748	750	752	754	756	758	760	762	764	766	768	770	772	774	796	776	778	780	782
2	Readville		5:48	6:30	7:15	7:55	8:35	9:20	10:00	11:00	12:00	1:00	2:00	3:00	4:00	4:25	5:05	5:50	6:20	6:25	7:25	8:25	9:25	10:20
1A	Fairmount		5:51	6:33	7:18	7:58	8:38	f 9:23	f 10:03	f 11:03	f 12:03	f 1:03	f 2:03	f 3:03	f 4:03	f 4:28	f 5:08	f 5:53	-	6:30	f 7:28	f 8:28	f 9:28	f 10:23
1A	Morton Street		5:56	6:38	7:23	8:03	8:43	f 9:27	f 10:07	f 11:07	f 12:07	f 1:07	f 2:07	f 3:07	f 4:07	f 4:32	f 5:12	f 5:57	-	-	f 7:32	f 8:32	f 9:32	f 10:27
1A	Talbot Avenue		5:59	6:41	7:26	8:06	8:46	f 9:30	f 10:10	f 11:10	f 12:10	f 1:10	f 2:10	f 3:10	f 4:10	f 4:35	f 5:15	f 6:00	-	-	f 7:35	f 8:35	f 9:35	f 10:30
1A	Four Corners/Geneva Avenue		6:02	6:44	7:29	8:09	8:49	f 9:32	f 10:12	f 11:12	f 12:12	f 1:12	f 2:12	f 3:12	f 4:12	f 4:37	f 5:17	f 6:02	-	-	f 7:37	f 8:37	f 9:37	f 10:32
1A	Uphams Corner		6:05	6:47	7:32	8:12	8:52	f 9:34	f 10:14	f 11:14	f 12:14	f 1:14	f 2:14	f 3:14	f 4:14	f 4:39	f 5:19	f 6:04	-	-	f 7:39	f 8:39	f 9:39	f 10:34
1A	Newmarket		6:08	6:50	7:35	8:15	8:55	f 9:37	f 10:17	f 11:17	f 12:17	f 1:17	f 2:17	f 3:17	f 4:17	f 4:42	f 5:22	f 6:07	-	-	f 7:42	f 8:42	f 9:42	f 10:37
1A	South Station		6:18	7:00	7:45	8:25	9:05	9:45	10:25	11:25	12:25	1:25	2:25	3:25	4:25	4:50	5:30	6:15	6:43	6:50	7:50	8:50	9:50	10:45

Trains in purple box indicate peak period trains.

Monday to Friday

Outbound from Boston

ZONE	STATION	TRAIN #	AM									PM											
	Bikes Allowed		743	745	747	793	749	751	753	755	757	759	761	763	765	767	769	771	773	775	777	779	781
1A	South Station		5:50	6:40	7:20	7:55	8:00	8:40	9:20	10:20	11:20	12:20	1:20	2:20	3:20	3:45	4:25	5:10	5:40	6:45	7:45	8:45	9:40
1A	Newmarket		f 5:58	f 6:48	f 7:28	-	f 8:08	f 8:48	f 9:28	f 10:28	f 11:28	f 12:28	f 1:28	f 2:28	f 3:29	3:54	4:34	5:19	5:49	6:54	f 7:53	f 8:53	f 9:48
1A	Uphams Corner		f 6:01	f 6:51	f 7:31	-	f 8:11	f 8:51	f 9:31	f 10:31	f 11:31	f 12:31	f 1:31	f 2:31	f 3:32	3:57	4:37	5:22	5:52	6:57	f 7:56	f 8:56	f 9:51
1A	Four Corners/Geneva Avenue		f 6:03	f 6:53	f 7:33	-	f 8:13	f 8:53	f 9:33	f 10:33	f 11:33	f 12:33	f 1:33	f 2:33	f 3:35	4:00	4:40	5:25	5:55	7:00	f 7:58	f 8:58	f 9:53
1A	Talbot Avenue		f 6:05	f 6:55	f 7:35	-	f 8:15	f 8:55	f 9:35	f 10:35	f 11:35	f 12:35	f 1:35	f 2:35	f 3:38	4:03	4:43	5:28	5:58	7:03	f 8:00	f 9:00	f 9:55
1A	Morton Street		f 6:07	f 6:57	f 7:37	-	f 8:17	f 8:57	f 9:37	f 10:37	f 11:37	f 12:37	f 1:37	f 2:37	f 3:41	4:06	4:46	5:31	6:01	7:06	f 8:02	f 9:02	f 9:57
1A	Fairmount		f 6:11	f 7:01	f 7:41	-	f 8:21	f 9:01	f 9:41	f 10:41	f 11:41	f 12:41	f 1:41	f 2:41	f 3:45	4:10	4:50	5:35	6:05	7:10	f 8:06	f 9:06	f 10:01
2	Readville		6:15	7:05	7:45	8:20	8:25	9:05	9:45	10:45	11:45	12:45	1:45	2:45	3:50	4:15	4:55	5:40	6:10	7:15	8:10	9:10	10:05

Trains in purple box indicate peak period trains.

Saturday & Sunday

Inbound to Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	AM					PM											
	Bikes Allowed		1752 / 2752	1754 / 2754	1756 / 2756	1758 / 2758	1760 / 2760	1762 / 2762	1764 / 2764	1766 / 2766	1768 / 2768	1770 / 2770	1772 / 2772	1774 / 2774	1776 / 2776	1778 / 2778	1780 / 2780	1782 / 2782	1784 / 2784
2	Readville		7:30	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:30	7:30	8:30	9:30	10:30	11:30
1A	Fairmount		f 7:33	f 8:33	f 9:33	f 10:33	f 11:33	f 12:33	f 1:33	f 2:33	f 3:33	f 4:33	f 5:33	f 6:33	f 7:33	f 8:33	f 9:33	f 10:33	f 11:33
1A	Morton Street		f 7:37	f 8:37	f 9:37	f 10:37	f 11:37	f 12:37	f 1:37	f 2:37	f 3:37	f 4:37	f 5:37	f 6:37	f 7:37	f 8:37	f 9:37	f 10:37	f 11:37
1A	Talbot Avenue		f 7:40	f 8:40	f 9:40	f 10:40	f 11:40	f 12:40	f 1:40	f 2:40	f 3:40	f 4:40	f 5:40	f 6:40	f 7:40	f 8:40	f 9:40	f 10:40	f 11:40
1A	Four Corners/Geneva Avenue		f 7:42	f 8:42	f 9:42	f 10:42	f 11:42	f 12:42	f 1:42	f 2:42	f 3:42	f 4:42	f 5:42	f 6:42	f 7:42	f 8:42	f 9:42	f 10:42	f 11:42
1A	Uphams Corner		f 7:44	f 8:44	f 9:44	f 10:44	f 11:44	f 12:44	f 1:44	f 2:44	f 3:44	f 4:44	f 5:44	f 6:44	f 7:44	f 8:44	f 9:44	f 10:44	f 11:44
1A	Newmarket		f 7:47	f 8:47	f 9:47	f 10:47	f 11:47	f 12:47	f 1:47	f 2:47	f 3:47	f 4:47	f 5:47	f 6:47	f 7:47	f 8:47	f 9:47	f 10:47	f 11:47
1A	South Station		7:55	8:55	9:55	10:55	11:55	12:55	1:55	2:55	3:55	4:55	5:55	6:55	7:55	8:55	9:55	10:55	11:55

Saturday & Sunday

Outbound from Boston

ZONE	STATION	SATURDAY TRAIN # / SUNDAY TRAIN #	AM						PM										
	Bikes Allowed		1751 / 2751	1753 / 2753	1755 / 2755	1757 / 2757	1759 / 2759	1761 / 2761	1763 / 2763	1765 / 2765	1767 / 2767	1769 / 2769	1771 / 2771	1773 / 2773	1775 / 2775	1777 / 2777	1779 / 2779	1781 / 2781	1783 / 2783
1A	South Station		6:50	7:50	8:50	9:50	10:50	11:50	12:50	1:50	2:50	3:50	4:50	5:50	6:50	7:50	8:50	9:50	10:50
1A	Newmarket		f 6:58	f 7:58	f 8:58	f 9:58	f 10:58	f 11:58	f 12:58	f 1:58	f 2:58	f 3:58	f 4:58	f 5:58	f 6:58	f 7:58	f 8:58	f 9:58	f 10:58
1A	Uphams Corner		f 7:01	f 8:01	f 9:01	f 10:01	f 11:01	f 12:01	f 1:01	f 2:01	f 3:01	f 4:01	f 5:01	f 6:01	f 7:01	f 8:01	f 9:01	f 10:01	f 11:01
1A	Four Corners/Geneva Avenue		f 7:03	f 8:03	f 9:03	f 10:03	f 11:03	f 12:03	f 1:03	f 2:03	f 3:03	f 4:03	f 5:03	f 6:03	f 7:03	f 8:03	f 9:03	f 10:03	f 11:03
1A	Talbot Avenue		f 7:05	f 8:05	f 9:05	f 10:05	f 11:05	f 12:05	f 1:05	f 2:05	f 3:05	f 4:05	f 5:05	f 6:05	f 7:05	f 8:05	f 9:05	f 10:05	f 11:05
1A	Morton Street		f 7:07	f 8:07	f 9:07	f 10:07	f 11:07	f 12:07	f 1:07	f 2:07	f 3:07	f 4:07	f 5:07	f 6:07	f 7:07	f 8:07	f 9:07	f 10:07	f 11:07
1A	Fairmount		f 7:11	f 8:11	f 9:11	f 10:11	f 11:11	f 12:11	f 1:11	f 2:11	f 3:11	f 4:11	f 5:11	f 6:11	f 7:11	f 8:11	f 9:11	f 10:11	f 11:11
2	Readville		7:15	8:15	9:15	10:15	11:15	12:15	1:15	2:15	3:15	4:15	5:15	6:15	7:15	8:15	9:15	10:15	11:15

Keep in Mind

This schedule will be effective from June 29, 2015, and will replace the schedule of November 29, 2014.

Holiday Service:

Saturday service: Presidents' Day, 4th of July.

Sunday service: New Year's Day, Memorial Day, Labor Day, Thanksgiving Day, Christmas Day.

All other holidays: For other holiday schedules, please check MBTA.com or call 617-222-3200.

Times in purple with "f" indicate a flag stop: Passengers must tell the conductor that they wish to leave. Passengers waiting to board must be visible on the platform for the train to stop.

Bikes: Bicycles are allowed on trains with the bicycle symbol shown below the train number.

For additional services to Readville station refer to the Franklin Line schedule.

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□ Background Growth

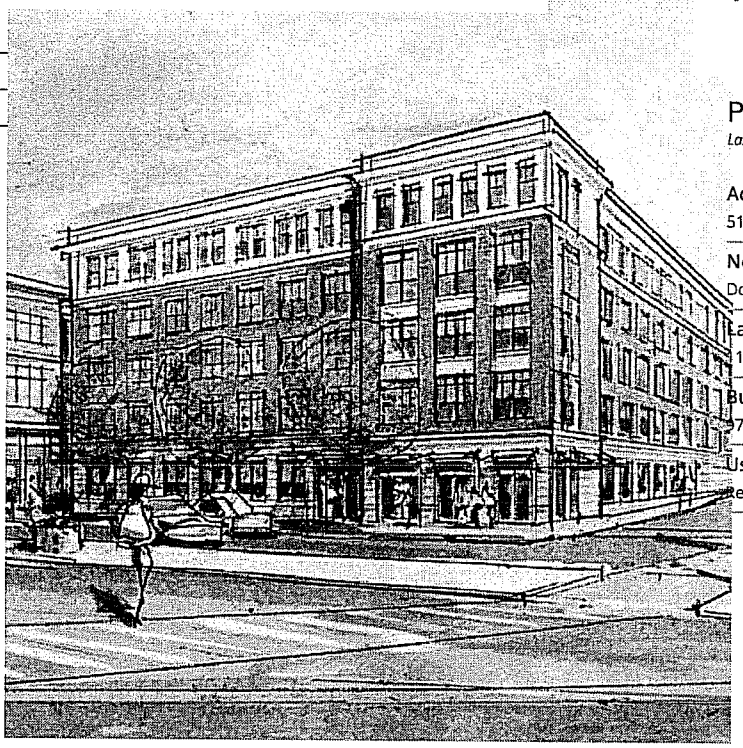
DEVELOPMENT

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ST. KEVIN'S REDEVELOPMENT

VIEWING Overview



PROJECT STATS

RSS

Last Updated 09/09/2013

Address:
516-530 Columbia Road

Neighborhood:
Dorchester

Land Sq. Feet:
16,516 sq ft

Building Size:
57,000 sq ft

Uses:
Rental / Residential

Project Description:

Proposal calls for 80 units of affordable housing in three buildings.

Project Documents All Project Documents »

PROJECT PHASE

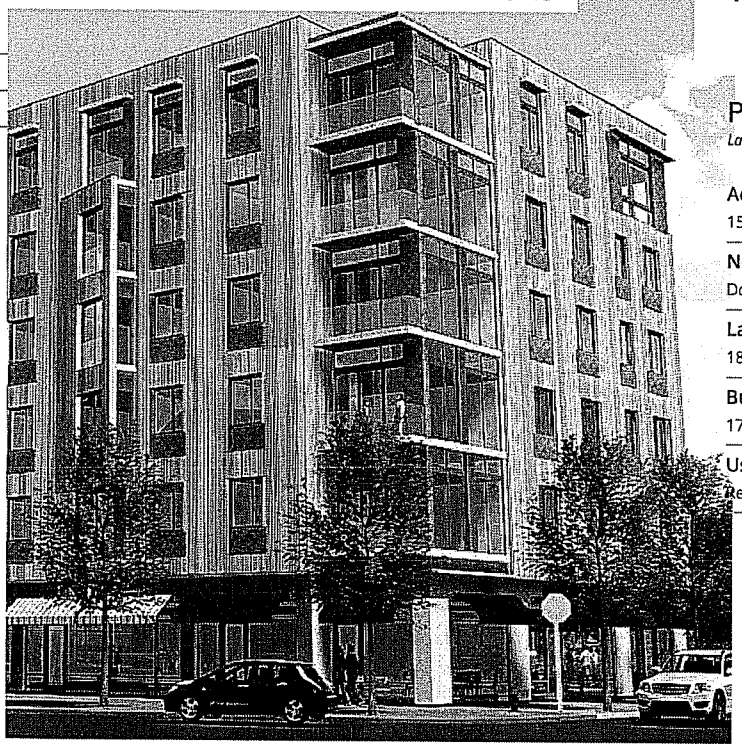
Letter of Intent
Under Review
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Under Construction
Construction Complete

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UNIVERSITY PLACE RESIDENCES



VIEWING Overview

PROJECT STATS

RSS

Last Updated 09/09/2013

Address:
150 Mount Vernon Street

Neighborhood:
Dorchester

Land Sq. Feet:
184,816 sq ft

Building Size:
175,000 sq ft

Uses:
Rental / Residential

Project Description:

Proposal calls for 184 residential units and 83 parking spaces.

Project Documents All Project Documents »

UNIVERSITY PLACES RESIDENCES PNF	**PDF, 160MB**

PROJECT PHASE

Letter of Intent

Under Review

Board Approved

Under Construction

Construction Complete

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25 MORRISSEY BOULEVARD



VIEWING Overview

PROJECT STATS

RSS

Last Updated 09/09/2013

Address:
25 William T. Morrissey Boulevard

Neighborhood:
Dorchester

Land Sq. Feet:
102,366 sq ft

Building Size:
220,000 sq ft

Uses:
Rental / Residential

Project Description:

Proposal calls for the construction of 278 residential units in two buildings and 143 parking spaces.

Project Documents All Project Documents »

PROJECT PHASE

Letter of Intent
Under Review
Board Approved
Under Construction
Construction Complete

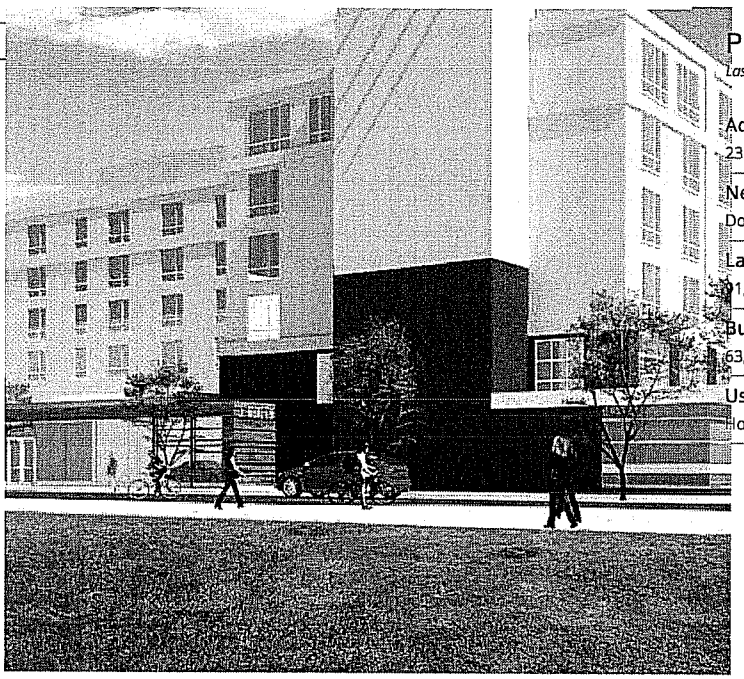
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236 MOUNT VERNON STREET - BAYSIDE DOUBLETREE HOTEL EXPANSION

VIEWING Overview



PROJECT STATS

RSS

Last Updated 10/10/2014

Address:
236 Mount Vernon

Neighborhood:
Dorchester

Land Sq. Feet:
91,027 sq ft

Building Size:
63,000 sq ft

Uses:
Hotel / Retail

Project Description:

Expand existing Doubletree Hotel by constructing a new 63,000 GSF L-shaped addtion adding a net new 86 guest rooms which includes new conference and meeting facilities, a new resaurant measuring approximately 3,000 sf.

Project Documents All Project Documents »

BAYSIDE DOUBLETREE HOTEL EXPANSION PNF	**PDF, 12.1MB**

PROJECT PHASE

Letter of Intent

Under Review

Board Approved

Under Construction

Construction Complete

DEVELOPMENT

Development Projects
What is Development Review?
Capital Construction
Compliance

Zoning Viewer
Enter Address or Parcel ID

NORTHAMPTON SQUARE PROJECT

VIEWING Overview



PROJECT STATS

RSS

Last Updated 09/09/2013

Neighborhood:
Roxbury

Land Sq. Feet:
0 sq ft

Building Size:
371,881 sq ft

Uses:
Rental / Residential

Project Description:

Proposal calls for the rehabilitation of the existing building at 860 Harrison Ave (102 rental units) and the construction of a new, 211-unit tower at the corner of Albany and Northampton Streets.

Project Documents All Project Documents »

NORTHAMPTON SQUARE PROJECT PNF 10/18/2013	**PDF, 45MB**	NORTHAMPTON SQUARE PROJECT PDA 10/18/2013	**PDF, 5.7MB**

PROJECT PHASE

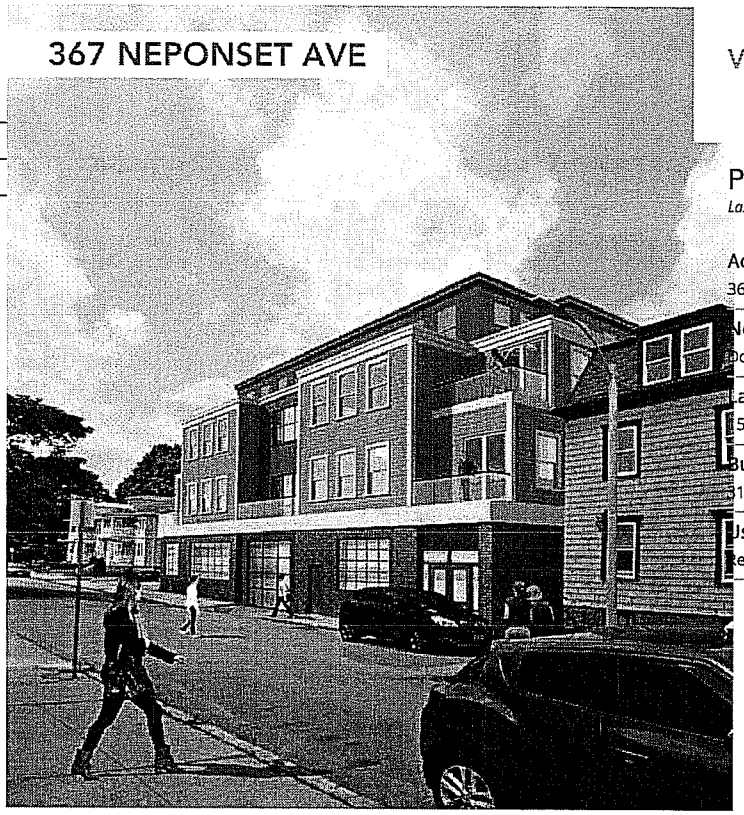
Letter of Intent
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Board Approved
Under Construction
Construction Complete

DEVELOPMENT

Development Projects
What is Development Review?
Capital Construction
Compliance

Zoning Viewer
Enter Address or Parcel ID

367 NEPONSET AVE



VIEWING Overview

PROJECT STATS

RSS

Last Updated 10/16/2014

Address:
367 Neponset Ave

Neighborhood:
Dorchester

Land Sq. Feet:
15,700 sq ft

Building Size:
31,500 sq ft

Uses:
Rental / Retail

Project Description:

Proposed 31,500 sq ft development consisting of 22 rental residential units, 33 parking spaces at grade and a restaurant. Restaurant is 5,500 sq ft and residential component is 26,000 sq ft.

Project Documents All Project Documents »

367 NEPONSET AVE PNF 2014-10-15	**PDF, 6.9MB**

PROJECT PHASE

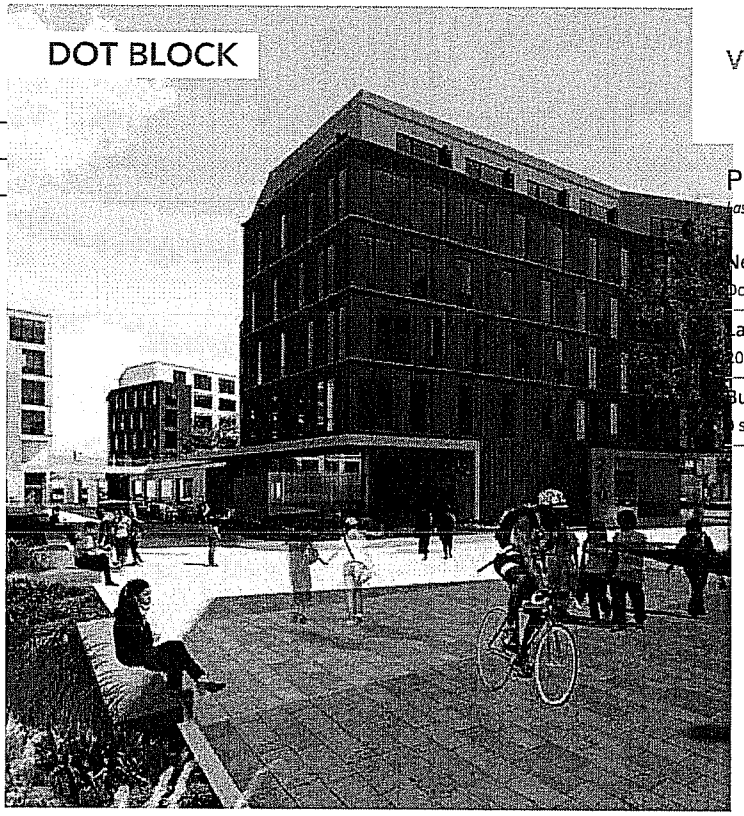
Letter of Intent
Under Review
Board Approved
Under Construction
Construction Complete

DEVELOPMENT

Development Projects
What is Development Review?
Capital Construction
Compliance

Zoning Viewer
Enter Address or Parcel ID

DOT BLOCK



VIEWING Overview

PROJECT STATS

RSS

Last Updated 06/02/2015

Neighborhood:
Dorchester

Land Sq. Feet:
206,849 sq ft

Building Size:
sq ft

Project Description:

Project Documents All Project Documents »

DOT BLOCK LOI 2015-05-22	**PDF, 3MB**	DOT BLOCK PNF 2015-06-02	**PDF, 42MB**

PROJECT PHASE

Letter of Intent

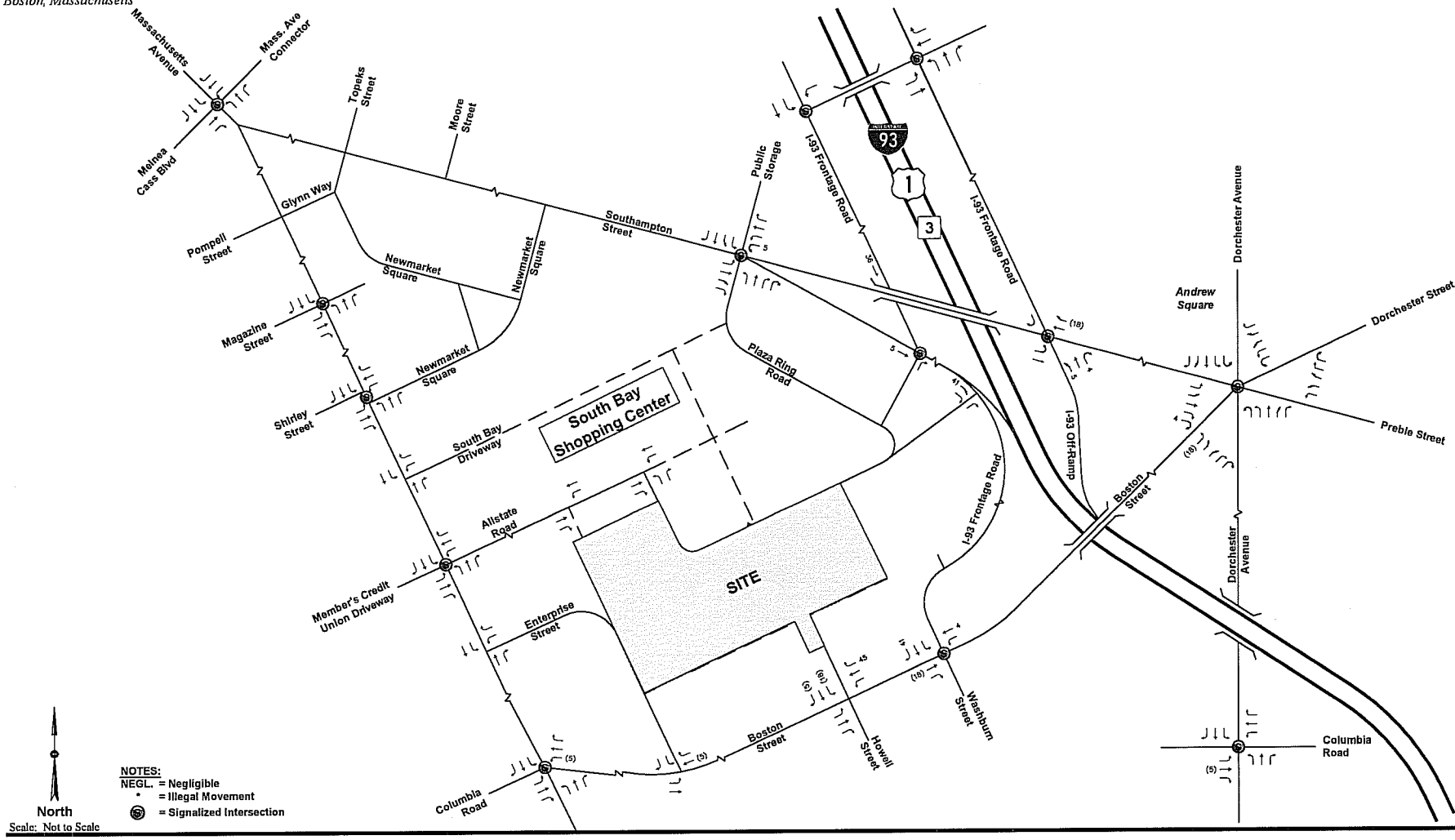
Under Review

Board Approved

Under Construction

Construction Complete

□ Trip Generation Data

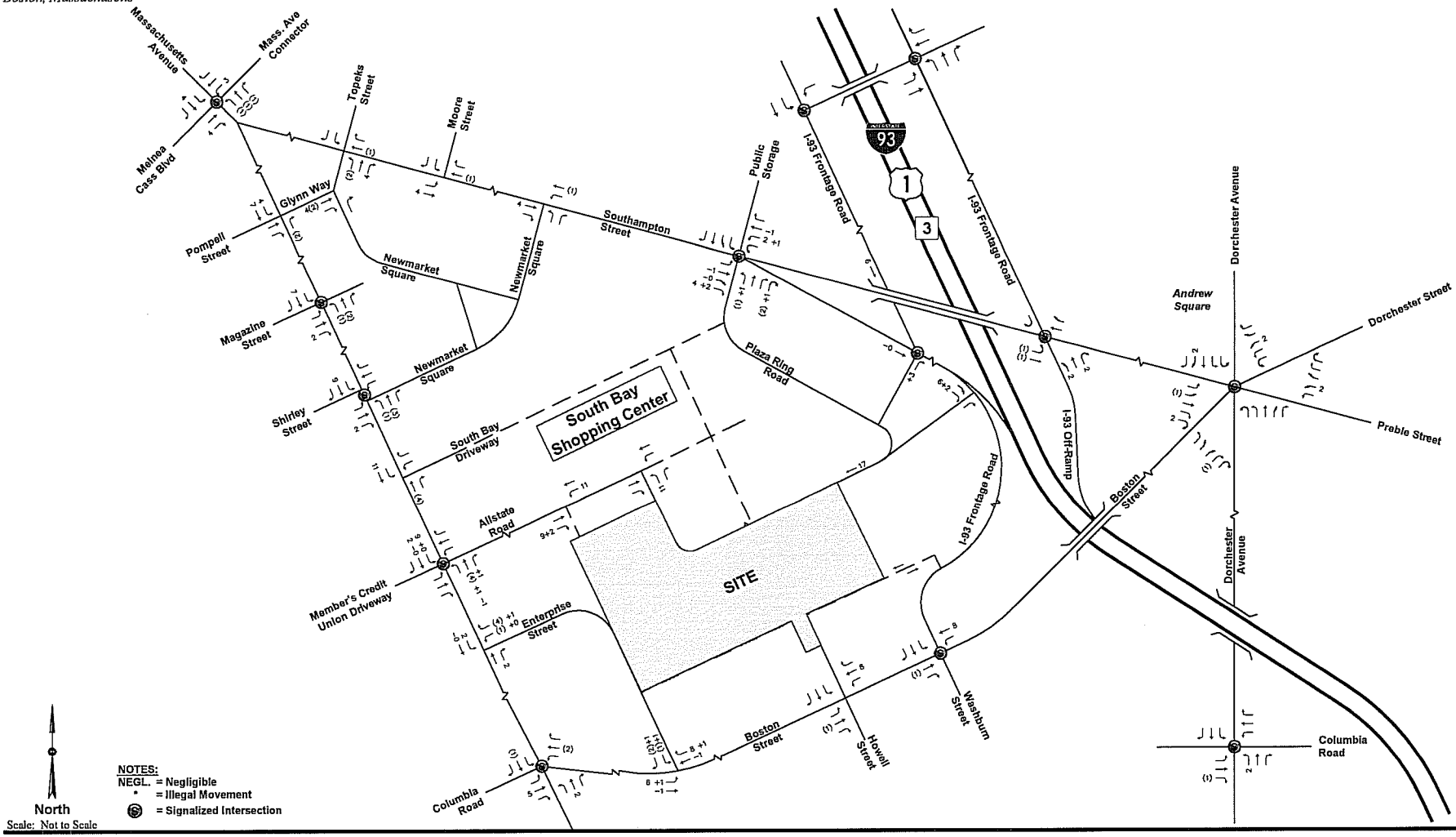


MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Appendix

Hotel Site Generated Trips
Weekday Morning Peak Hour
(175 Rooms)

Date: April 2015
Dwg No. 804 PNF.dwg
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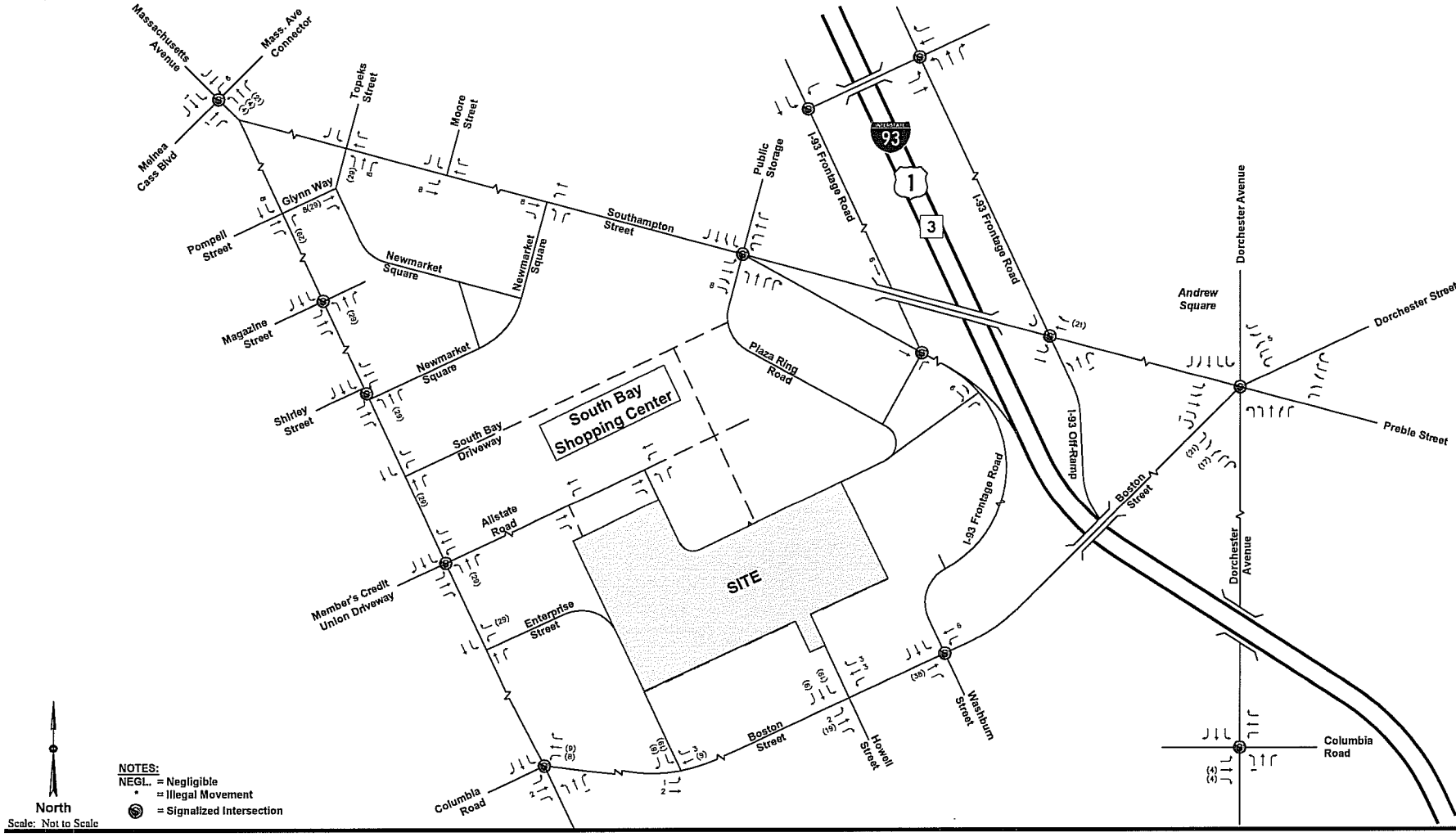


Appendix

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Retail Site Generated Trips
Weekday Morning Peak Hour
(120 ksf)

Date: April 2015
Dwg No. 804 PNF.dwg
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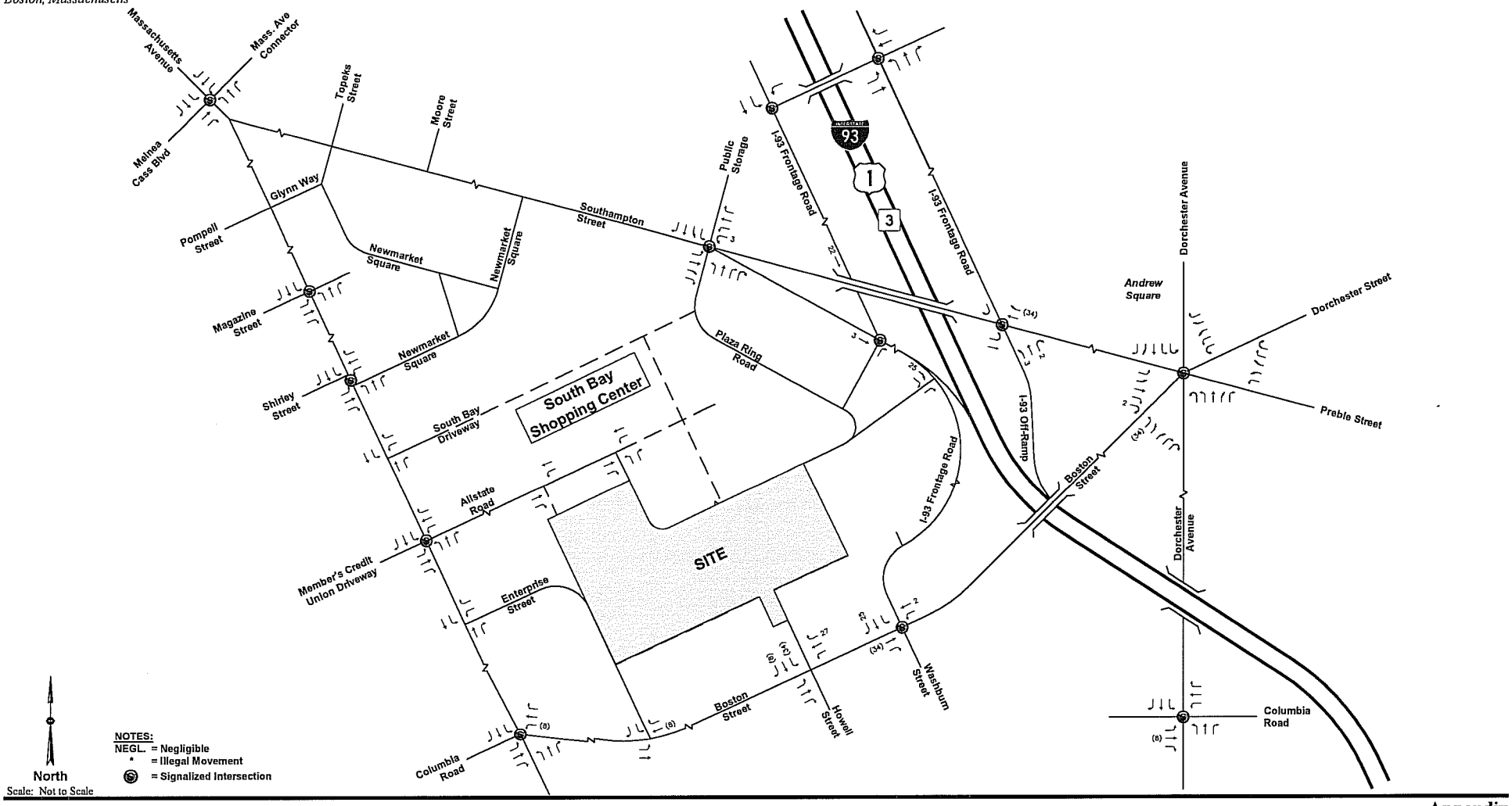


Appendix

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Residential Site Generated Trips
Weekday Morning Peak Hour
(475 Apartment Units)

Date: April 2015
Dwg No. 804 PNF.dwg
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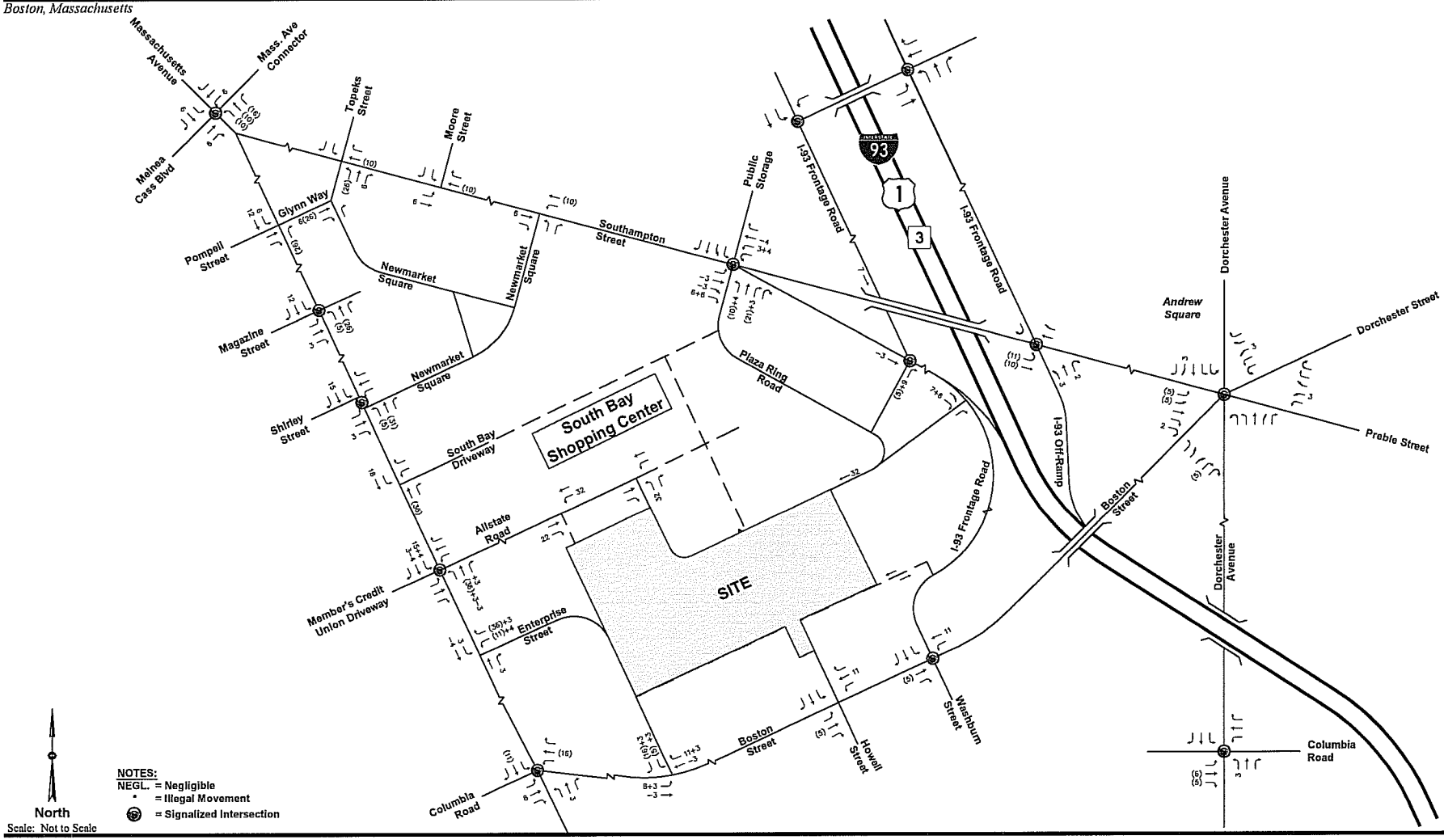


MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Appendix

Hotel Site Generated Trips
Weekday Evening Peak Hour
(175 Rooms)

Date: April 2015
Dwg No. 804 PNF.dwg
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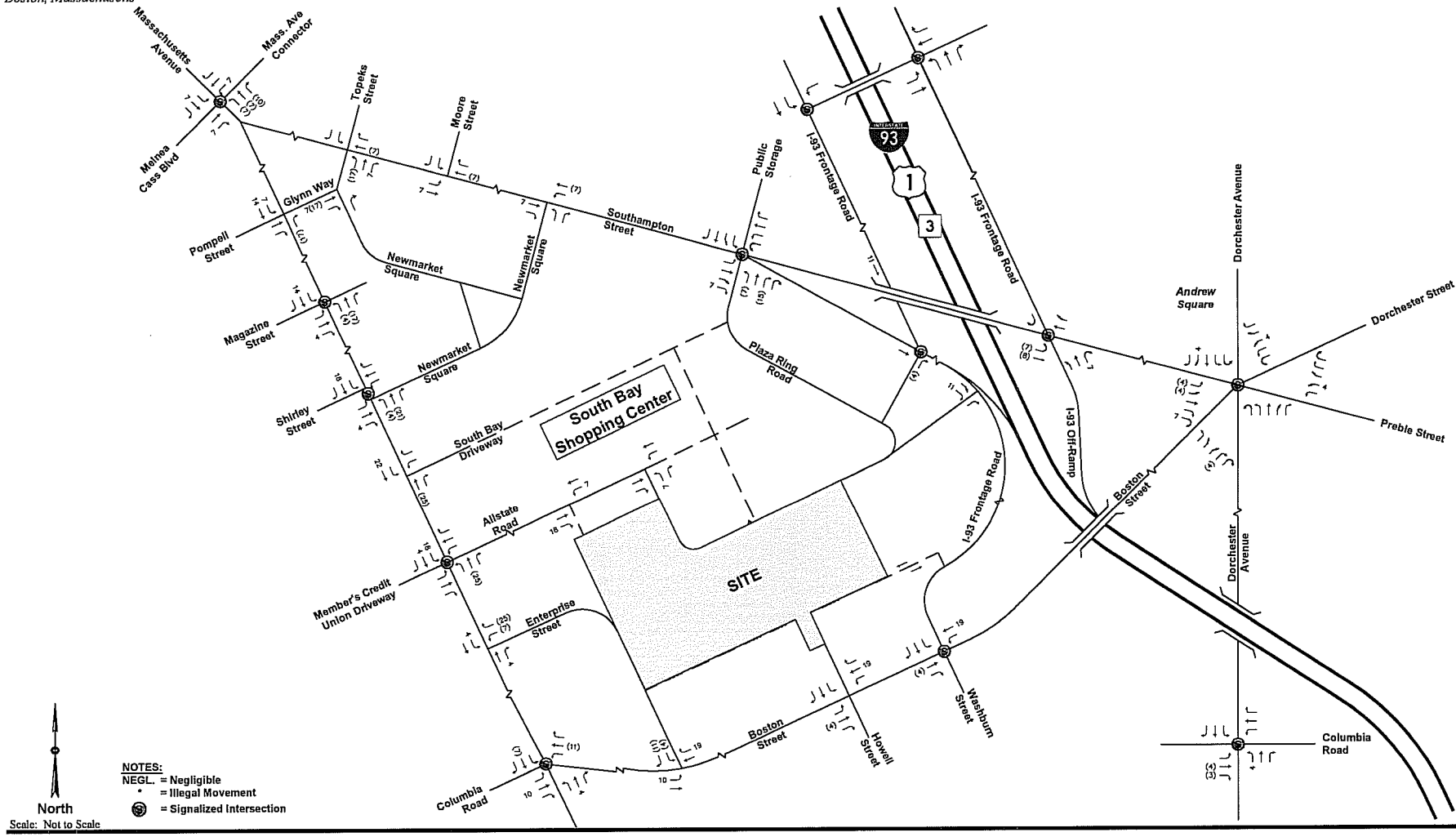


Appendix

Retail Site Generated Trips
Weekday Evening Peak Hour
(120 ksf)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: April 2015
Dwg No. 804 PNF.dwg
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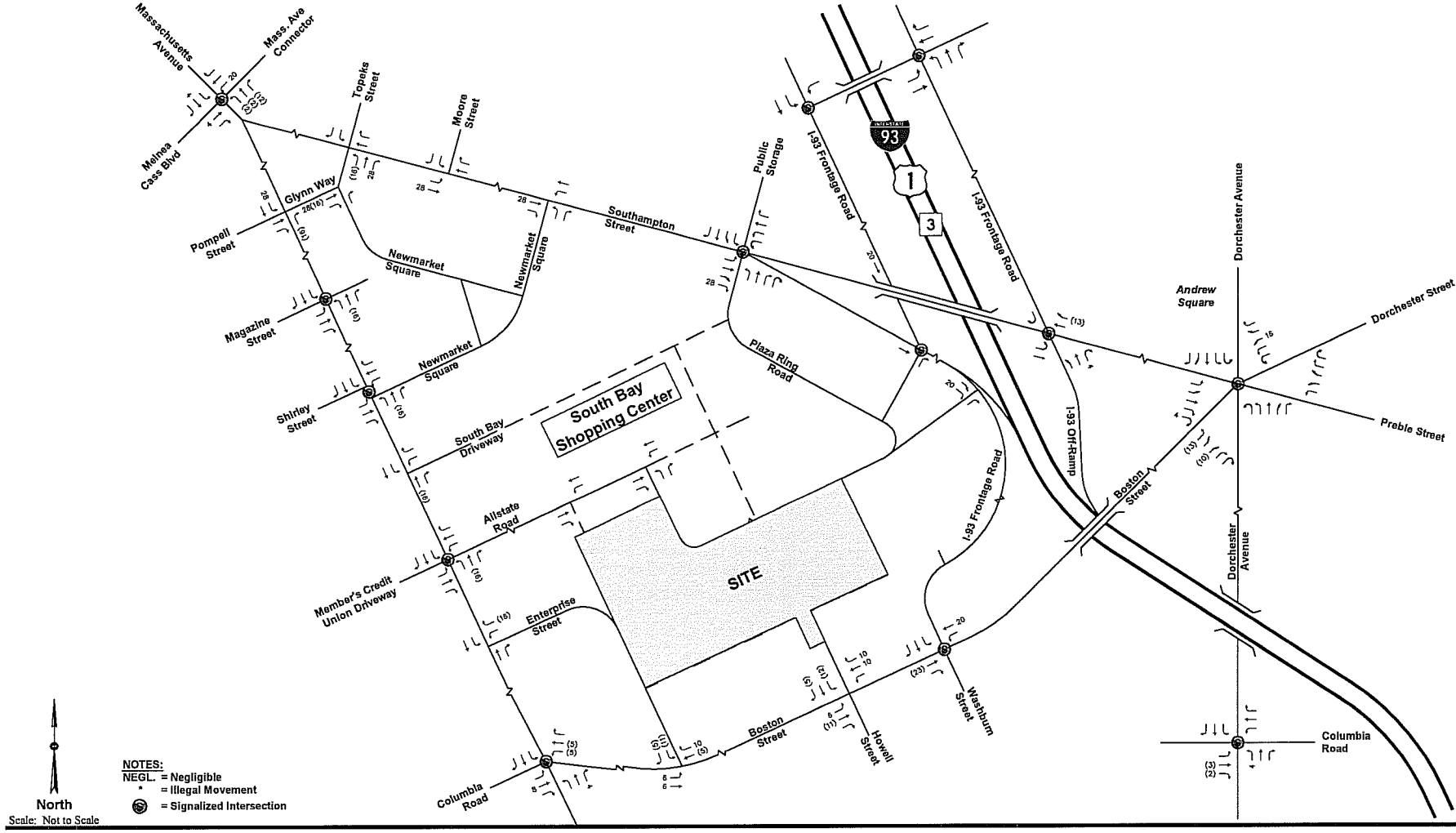


MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Appendix

Cinema Site Generated Trips
Weekday Evening Peak Hour
(12 Theaters)

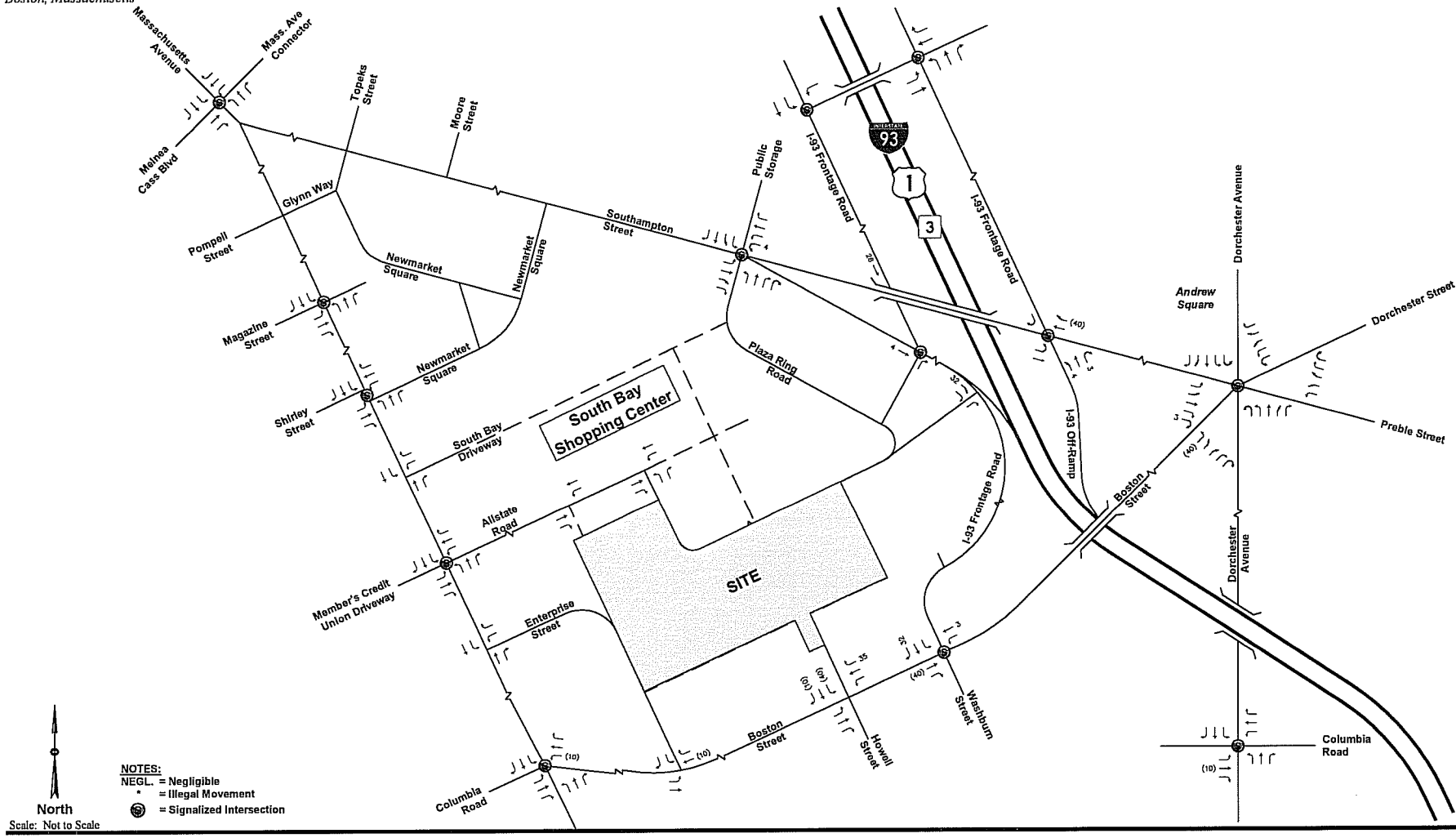
Date: April 2015
Dwg No. 804 PNF.dwg
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MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Residential Site Generated Trips
Weekday Evening Peak Hour
(475 Apartment Units)

Date: April 2015
Dwg No. 804 PNF.dwg
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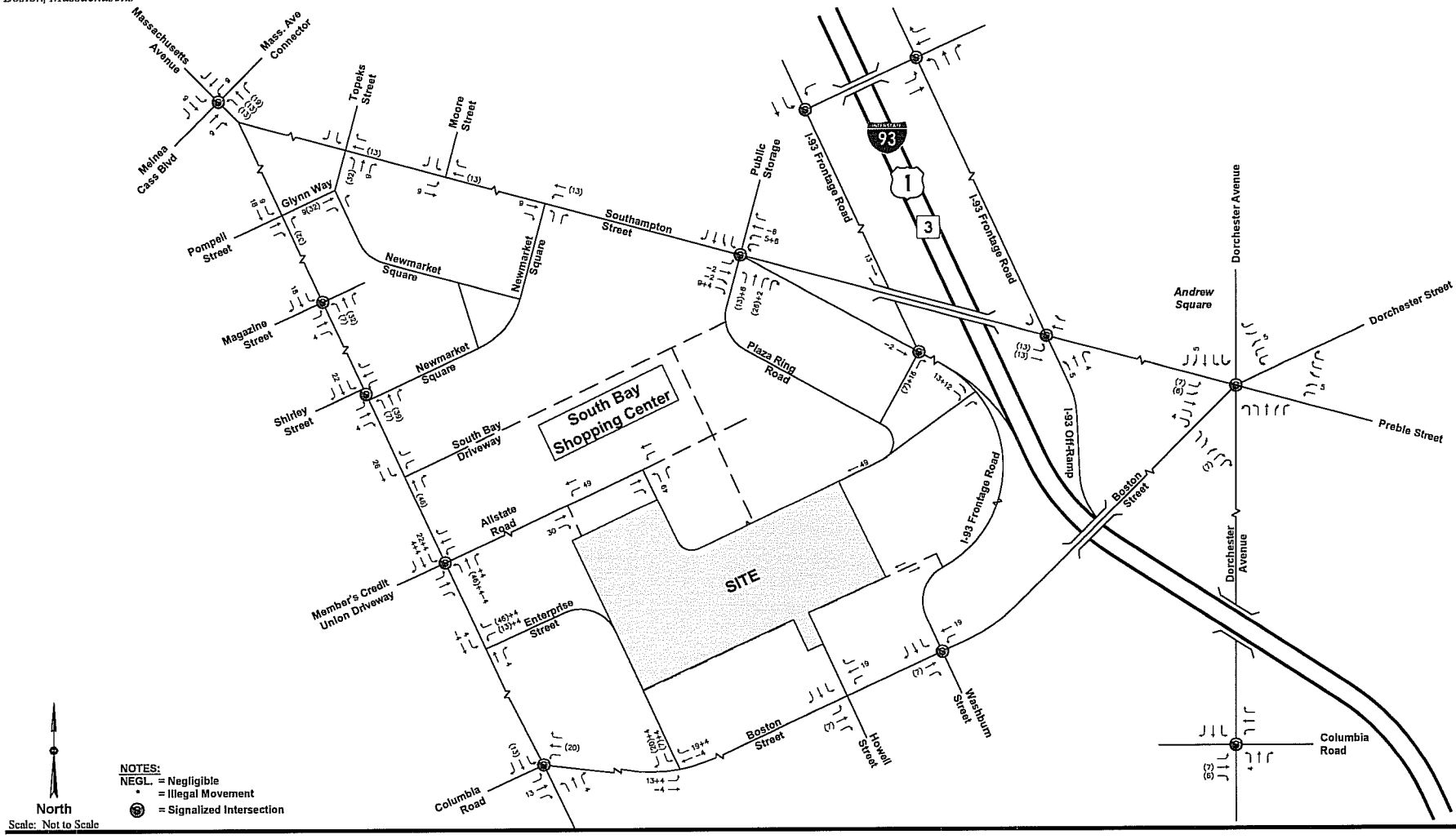


Appendix

Hotel Site Generated Trips
Saturday Midday Peak Hour
(175 Rooms)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: April 2015
Dwg No. 804 PNF.dwg
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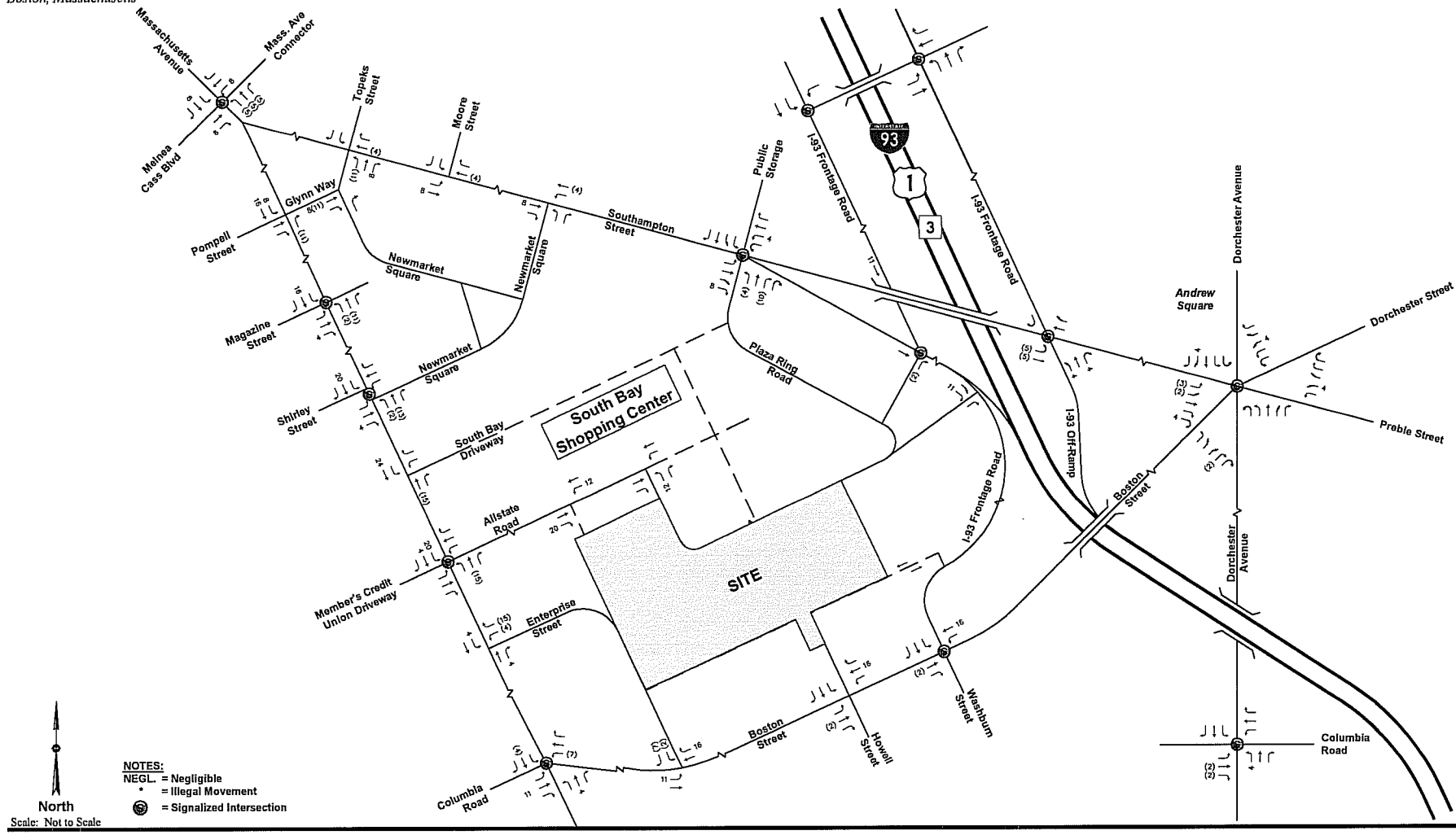


MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Appendix

Retail Site Generated Trips
Saturday Midday Peak Hour
(120 ksf)

Date: April 2015
Dwg No. 804 PNF.dwg
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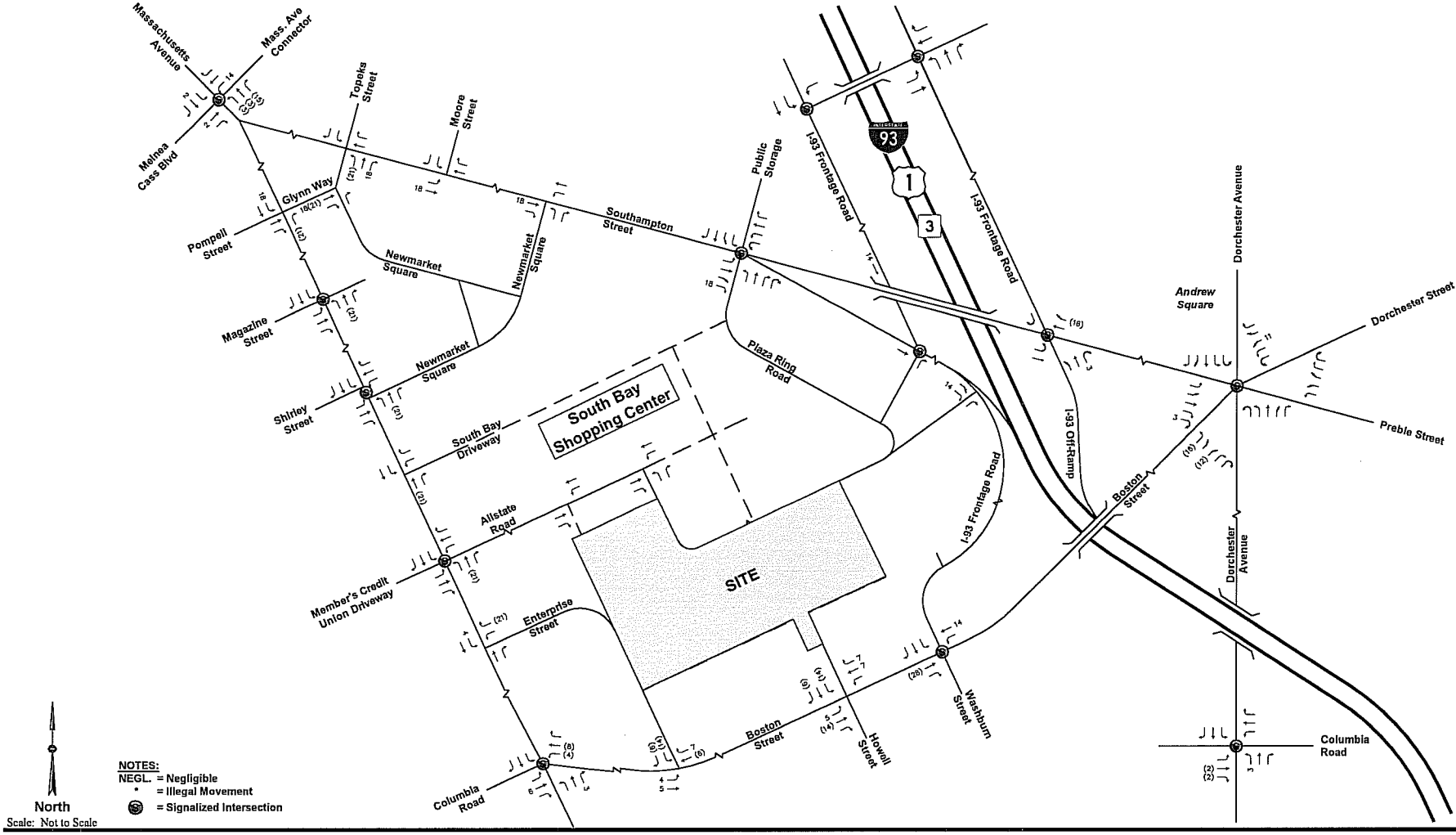


Appendix

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Cinema Site Generated Trips
Saturday Midday Peak Hour
(12 Theaters)

Date: April 2015
Dwg No. 804 PNF.dwg
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Appendix

MDM TRANSPORTATION CONSULTANTS, INC.
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Residential Site Generated Trips
Saturday Midday Peak Hour
(475 Apartment Units)

Date: April 2015
Dwg No. 804 PNF.dwg
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Institute of Transportation Engineers (ITE) 9th Edition
Land Use Code (LUC) 220 - Apartment

Average Vehicle Trips Ends vs: Dwelling Units
Independent Variable (X): 475

AVERAGE WEEKDAY DAILY

T = 6.06 * (X) + 123.56
T = 6.06 * 475 + (123.56)
T = 3002.06
T = 3,002 vehicle trips
with 50% (**1,501** vpd) entering and 50% (**1,501** vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 0.49 * (X) + 3.73
T = 0.49 * 475 + (3.73)
T = 236.48
T = 236 vehicle trips
with 20% (**47** vph) entering and 80% (**189** vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 0.55 * (X) + 17.65
T = 0.55 * 475 + (17.65)
T = 278.90
T = 279 vehicle trips
with 65% (**181** vph) entering and 35% (**98** vph) exiting.

SATURDAY DAILY

T = 7.85 * (X) - 256.19
T = 7.85 * 475 - (256.19)
T = 3472.56
T = 3,472 vehicle trips
with 50% (**1,736** vpd) entering and 50% (**1,736** vpd) exiting.

SATURDAY MIDDAY PEAK HOUR OF GENERATOR

T = 0.52 * (X)
T = 0.52 * 475
T = 247.00
T = 248 vehicle trips
with 50% (**124** vph) entering and 50% (**124** vph) exiting.

Institute of Transportation Engineers (ITE) 9th Edition
Land Use Code (LUC) 310 - Hotel

Average Vehicle Trips Ends vs: Occupied Rooms
Independent Variable (X): 175

AVERAGE WEEKDAY DAILY

T = 8.92*X (Small Sample Size - Use with Caution)
T = 8.92* 175
T = 1561.00
T = 1,562 vehicle trips
with 50% (781 vpd) entering and 50% (781 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 0.67 *X
T = 0.67* 175
T = 117.25
T = 117 vehicle trips
with 58% (68 vpd) entering and 42% (49 vpd) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 0.7 * X
T = 0.7 * 175
T = 122.50
T = 123 vehicle trips
with 49% (60 vph) entering and 51% (63 vph) exiting.

SATURDAY DAILY

T = 10.50 * (X) (Small Sample Size - Use with Caution)
T = 10.5* 175
T = 1837.50
T = 1,838 vehicle trips
with 50% (919 vpd) entering and 50% (919 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

T = 0.87 * (X) (Small Sample Size - Use with Caution)
T = 0.87* 175
T = 152.25
T = 152 vehicle trips
with 50% (76 vpd) entering and 50% (76 vpd) exiting.

Institute of Transportation Engineers (ITE) 9th Edition
Land Use Code (LUC) 820 - Shopping Center

Average Vehicle Trips Ends vs: 1,000 Sq. Feet Gross Leasable Area
Independent Variable (X): 647.040 Plaza Total
120 Retail Component

AVERAGE WEEKDAY DAILY

Ln T = 0.65*Ln (X) + 5.83
Ln T = 0.65*Ln (647.04) + 5.83
Ln T = 10.04
T = 22858.20
T = 22,858 vehicle trips
with 50% (11,429 vpd) entering and 50% (11,429 vpd) exiting.

	18	18	
Prorated:	2,120	2,120	4,240

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 0.96 * (X)
T = 0.96 * 647.04
T = 621.16
T = 621 vehicle trips
with 62% (385 vph) entering and 38% (236 vph) exiting.

	1	0	
Prorated:	71	44	115

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

Ln T = 0.67*Ln(X) + 3.31
Ln T = 0.67*Ln(647.04) + 3.31
Ln T = 7.65
T= 2093.33
T = 2,093 vehicle trips
with 48% (1,005 vph) entering and 52% (1,088 vph) exiting.

	2	2	
Prorated:	186	202	388

SATURDAY DAILY

Ln T = 0.63*Ln(X) + 6.23
Ln T = 0.63*Ln (647.04) + 6.23
Ln T = 10.31
T = 29959.96
T = 29,960 vehicle trips
with 50% (14,980 vpd) entering and 50% (14,980 vpd) exiting.

	23	23	
Prorated:	2,778	2,778	5,556

SATURDAY MIDDAY PEAK HOUR OF GENERATOR

Ln T = 0.65*Ln(X) + 3.78
Ln T = 0.65*Ln (647.04) + 3.78
Ln T = 7.99
T = 2942.65
T = 2,943 vehicle trips
with 52% (1,530 vph) entering and 48% (1,413 vph) exiting.

	2	2	
Prorated:	284	262	546

Summary

Pass-By: 0.26

	Total	Pass-By	Net New
PM			
In	186	50	**136**
Out	202	50	**152**
Total	388	100	**288**
Sat			
In	284	71	**213**
Out	262	71	**191**
Total	546	142	**404**
Daily			
In	2,120	551	**1,569**
Out	2,120	551	**1,569**
Total	4,240	1,102	**3,138**
Sat Daily			
In	2,778	722	**2,056**
Out	2,778	722	**2,056**
Total	5,556	1,444	**4,112**

Institute of Transportation Engineers (ITE)
Land Use Code (LUC) 445 - Multiplex Movie Theater

Average Vehicle Trips Ends vs: Movie Screens
Independent Variable (X): 12

AVERAGE WEEKDAY DAILY (Friday Peak)

T = 292.50*(X) (Caution - small sample size)
T = 292.50 * 12
T = 3510.00
T = 3,510 vehicle trips
with 50% (1,755 vph) entering and 50% (1,755 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC (Friday Peak)

T = 22.76*(X) (Caution - small sample size)
T = 22.76 * 12
T = 273.12
T = 273 vehicle trips
with 59% (161 vph) entering and 41% (112 vph) exiting.

SATURDAY MIDDAY PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 19.97* (X)
T = 19.97 * 12
T = 239.64
T = 240 vehicle trips
with 72% (173 vph) entering and 28% (67 vph) exiting.

South Bay Center - Proposed Expansion

Use	ITE Trips (Unadjusted)	VOR	Person Trips	% Auto	VOR	Mode-Adjusted Vehicle-Trips	Pass-By	Net New	Pass-By	Walk/ Bike/ Transit Non-Auto Trips	Walk/ Bike/ Transit Non-Auto Person Trips	Walk/Bike %	Transit %	Walk/Bike Persons	Transit Persons
Apartments (LUC 220)															
AM															
Enter	47	1.2	56	0.49	1.2	23	0%	23	0	24	29	43%	57%	12	16
Exit	189	1.2	227	0.44	1.2	84	0%	84	0	105	126	53%	47%	67	59
Total	236	1.2	283	-	1.2	107	0%	107	0	129	155			79	76
PM															
Enter	181	1.2	217	0.44	1.2	80	0%	80	0	101	121	53%	47%	64	57
Exit	98	1.2	118	0.49	1.2	49	0%	49	0	49	59	43%	57%	25	34
Total	279	1.2	335	-	1.2	129	0%	129	0	150	180			90	90
Sat															
Enter	124	1.2	149	0.44	1.2	55	0%	55	0	69	83	53%	47%	44	39
Exit	124	1.2	149	0.49	1.2	61	0%	61	0	63	76	43%	57%	33	43
Total	248	1.2	298	-	1.2	116	0%	116	0	132	158			76	82
Weekday Daily	3,002	1.2	3,602	0.53	1.2	1,591	0%	1,591	0	1,411	1693	51%	49%	864	830
Saturday Daily	3,472	1.2	4,166	0.53	1.2	1,840	0%	1,840	0	1,632	1958	51%	49%	999	960

South Bay Center - Proposed Expansion

Use	ITE Trips (Unadjusted)	VOR	Person Trips	% Auto	VOR	Mode-Adjusted Vehicle-Trips	Pass-By	Net New	Pass-By	Walk/ Bike/ Transit Non-Auto Trips	Walk/ Bike/ Transit Non-Auto Person Trips	Walk/Bike %	Transit %	Walk/Bike Persons	Transit Persons
Hotel (LUC 310)															
AM															
Enter	68	2.2	150	0.65	2.2	45	0%	45	0	23	51	57%	43%	29	22
Exit	49	2.2	108	0.45	2.2	23	0%	23	0	26	57	55%	45%	31	26
Total	117	2.2	258	-	2.2	68	0%	68	0	49	108			60	47
PM															
Enter	60	2.2	132	0.45	2.2	27	0%	27	0	33	73	55%	45%	40	33
Exit	63	2.2	139	0.65	2.2	42	0%	42	0	21	46	57%	43%	26	20
Total	123	2.2	271	-	2.2	69	0%	69	0	54	119			66	53
Sat															
Enter	76	2.2	167	0.45	2.2	35	0%	35	0	41	90	55%	45%	50	41
Exit	76	2.2	167	0.65	2.2	50	0%	50	0	26	57	57%	43%	33	25
Total	152	2.2	334	-	2.2	85	0%	85	0	67	147			82	65
Weekday Daily	1,562	2.2	3,436	0.61	2.2	953	0%	953	0	609	1340	62%	38%	831	509
Saturday Daily	1,838	2.2	4,044	0.61	2.2	1,122	0%	1,122	0	716	1575	62%	38%	977	599

South Bay Center - Proposed Expansion

Use	ITE Trips (Unadjusted)	VOR	Person Trips	% Auto	VOR	Mode-Adjusted Vehicle-Trips	Pass-By	Net New	Pass-By	Walk/ Bike/ Transit Non-Auto Trips	Walk/ Bike/ Transit Non-Auto Person Trips	Walk/Bike %	Transit %	Walk/Bike Persons	Transit Persons
General Retail (LUC 820)															
AM															
Enter	71	1.8	128	0.65	1.8	47	26%	38	9	24	43	57%	43%	25	19
Exit	44	1.8	79	0.45	1.8	20	26%	11	9	24	43	55%	45%	24	19
Total	115	1.8	207	-	1.8	67	26%	49	18	48	86			48	38
PM															
Enter	186	1.8	335	0.45	1.8	84	26%	56	28	102	184	55%	45%	101	83
Exit	202	1.8	364	0.65	1.8	132	26%	104	28	70	126	57%	43%	72	54
Total	388	1.8	699	-	1.8	216	26%	160	56	172	310			173	137
Sat															
Enter	284	1.8	511	0.45	1.8	128	26%	89	39	156	281	55%	45%	154	126
Exit	262	1.8	472	0.65	1.8	171	26%	132	39	91	164	57%	43%	93	70
Total	546	1.8	983	-	1.8	299	26%	221	78	247	445			248	197
Weekday Daily	4,240	1.8	7,632	0.61	1.8	2,587	26%	1,915	672	1,653	2975	62%	38%	1845	1131
Saturday Daily	5,556	1.8	10,001	0.61	1.8	3,390	26%	2,508	882	2,166	3899	62%	38%	2417	1482

South Bay Center - Proposed Expansion

Use	ITE Trips (Unadjusted)	VOR	Person Trips	% Auto	VOR	Mode-Adjusted Vehicle-Trips	Pass-By	Net New	Pass-By	Walk/ Bike/ Transit Non-Auto Trips	Walk/ Bike/ Transit Non-Auto Person Trips	Walk/Bike %	Transit %	Walk/Bike Persons	Transit Persons
Theatre (LUC 445)															
AM															
Enter	0	2.0	0	0.65	2.0	0	0%	0	0	0	0	57%	43%	0	0
Exit	0	2.0	0	0.45	2.0	0	0%	0	0	0	0	55%	45%	0	0
Total	0	2.0	0	-	2.0	0	0%	0	0	0	0			0	0
PM															
Enter	161	2.0	322	0.45	2.0	73	0%	73	0	88	176	55%	45%	97	79
Exit	112	2.0	224	0.65	2.0	73	0%	73	0	39	78	57%	43%	44	34
Total	273	2.0	546	-	2.0	146	0%	146	0	127	254			141	113
Sat															
Enter	173	2.0	346	0.45	2.0	78	0%	78	0	95	190	55%	45%	105	86
Exit	67	2.0	134	0.65	2.0	44	0%	44	0	23	46	57%	43%	26	20
Total	240	2.0	480	-	2.0	122	0%	122	0	118	236			131	105
Weekday Daily	3,510	2.0	7,020	0.61	2.0	2,142	0%	2,142	0	1,368	2736	62%	38%	1696	1040
Saturday Daily	3,510	2.0	7,020	0.61	2.0	2,142	0%	2,142	0	1,368	2736	62%	38%	1696	1040

South Bay Center - Proposed Expansion

Use		ITE Trips (Unadjusted)	VOR	Person Trips	% Auto	VOR	Mode-Adjusted Vehicle-Trips	Pass-By	Net New	Pass-By	Walk/ Bike/ Transit Non-Auto Trips	Walk/ Bike/ Transit Non-Auto Person Trips	Walk/Bike %	Transit %	Walk/Bike Persons	Transit Persons
Total								Pass-By							Walk/Bike Persons	Transit Persons
	AM														66	57
	Enter	186	-		-	-	115	9	106						122	104
	Exit	282	-		-	-	127	9	118						188	161
	Total	468	-		-	-	242	18	224							
	PM															
	Enter	588	-		-	-	264	28	236						302	251
	Exit	475	-		-	-	296	28	268						168	141
	Total	1,063	-		-	-	560	56	504						470	393
	Sat															
	Enter	657	-		-	-	296	39	257						352	291
	Exit	529	-		-	-	326	39	287						185	158
	Total	1,186	-		-	-	622	78	544						537	449
	Weekday Daily	12,314	-		-	-	7,273	672	6,601						5235	3509
	Saturday Daily	14,376	-		-	-	8,494	882	7,612						6089	4079

□ Trip Distribution Calculations

Journey-to-Work Distribution

Residence Town Name	Workplace Town Name	All Workers	% of Total Rounded
Boston, MA	Boston, MA*	132,758	57%
Cambridge, MA	Boston, MA	17,098	7%
Newton, MA	Boston, MA	6,986	3%
Brookline, MA	Boston, MA	6,406	3%
Quincy, MA	Boston, MA	5,335	2%
Waltham, MA	Boston, MA	4,073	1%
Watertown, MA	Boston, MA	3,118	1%
Somerville, MA	Boston, MA	2,455	1%
Framingham, MA	Boston, MA	2,318	1%
Needham, MA	Boston, MA	2,160	1%
Dedham, MA	Boston, MA	2,094	1%
Chelsea, MA	Boston, MA	2,059	1%
Braintree, MA	Boston, MA	1,790	1%
Wellesley, MA	Boston, MA	1,756	1%
Burlington, MA	Boston, MA	1,664	1%
Norwood, MA	Boston, MA	1,641	1%
Winthrop, MA	Boston, MA	1,640	1%
Other	Boston, MA	38,511	16%
	Total	233,862	100%

	From Routes																							
	I-93/Frontage Rd (From North)		I-93 (From South)		Mass Ave (From North)		Melnea Cass Blvd (From West)		Magazine Street (From West)		Dorchester Ave (From North)		Dorchester Ave (From South)		Dorchester Street (From Northeast)		Preble Street (From East)		Columbia Road (From South)		Columbia Road (From East)		Total
Workplace																							
Boston, MA	45%	25.7%		0.0%	5%	2.9%	5%	2.9%		0.0%	20%	11.4%	5%	2.9%	5%	2.9%	5%	2.9%	10%	5.7%		0.0%	57.0%
Cambridge, MA	100%	7.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	7.0%
Newton, MA	100%	3.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	50%	1.5%		0.0%	3.0%
Brookline, MA		0.0%		0.0%		0.0%	50%	1.5%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	2.0%
Quincy, MA		0.0%	100%	2.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Waltham, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Watertown, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Somerville, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Framingham, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Needham, MA		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	100%	1.0%		0.0%	1.0%
Dedham, MA		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	100%	1.0%		0.0%	1.0%
Chelsea, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Braintree, MA		0.0%	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Wellesley, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Burlington, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	50%	0.5%		0.0%	1.0%
Norwood, MA		0.0%	50%	0.5%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Winthrop, MA	100%	1.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%	1.0%
Other	50%	8.0%	5%	0.8%	5%	0.8%	5%	0.8%		0.0%	10%	1.6%	5%	0.8%	5%	0.8%	5%	0.8%	10%	1.6%		0.0%	16.0%
		51.7%		4.3%		3.7%		5.2%		0.0%		13.0%		3.7%		3.7%		3.7%		11.3%		0.0%	100%

Source: 2006-2010 US Census Journey-to-Work Data

*Boston population reduced by 36% to account for 36% public transit use by residents in the immediately adjacent US Census tracts.

Trip Distribution - Proposed Hotel

1) Based on other studies, approximately 50% of hotel trips originate from the airport. Therefore, 50% I-93 to/from the north based on airport activity.

2) Remaining 50% distributed based on population densities for Massachusetts, excluding Suffolk County:

County	Population	% Population		I-90		I-93 (North)		I-93 (South)	Total
Berkshire	129,585	2%	100%	2%		0%		0%	**2%**
Franklin	71,221	1%	100%	1%		0%		0%	**1%**
Hampshire	159,596	3%	100%	3%		0%		0%	**3%**
Hampden	467,319	8%	100%	8%		0%		0%	**8%**
Worcester	809,106	14%	90%	13%		0%	10%	1%	**14%**
Middlesex	1,552,802	26%	25%	6%	75%	20%		0%	**26%**
Norfolk	687,802	12%	10%	1%		0%	90%	11%	**12%**
Essex	762,550	13%		0%	100%	13%		0%	**13%**
Bristol	552,780	9%		0%		0%	100%	9%	**9%**
Plymouth	501,915	8%		0%		0%	100%	8%	**8%**
Barnstable	214,990	4%		0%		0%	100%	4%	**4%**
Total	**5,909,666**	**100%**		**34%**		**33%**		**33%**	**100%**

Total Distribution (Airport trips plus non-airport trips):

I-90	17%	Say 15%
I-93 (North)	67%	Say 65%
I-93 (South)	17%	Say 20%

South Bay Center - Proposed Expansion
Dorchester, MA

Existing South Bay Center Exiting Trip Distribution Patterns

AM Peak Hour (7:30 AM - 8:30 AM)

Access Location	To Direction	Volume	%
South Bay Center North - Mass Ave	North	203	24%
South Bay Center North - Mass Ave	South	6	1%
Allstate Road	North	48	6%
Allstate Road	South	116	14%
Allstate Road	West	12	1%
South Bay Center - Southampton	East/Southeast	258	30%
South Bay Center - Southampton	West	142	17%
South Bay Center - Southampton	North	0	0%
South Bay Center North - Frontage Rd	South	36	4%
South Bay Center South - Frontage Rd	South	29	3%
	Total	850	100%

PM Peak Hour (4:45 PM - 5:45 PM)

Access Location	To Direction	Volume	%
South Bay Center North - Mass Ave	North	288	24%
South Bay Center North - Mass Ave	South	22	2%
Allstate Road	North	101	8%
Allstate Road	South	324	27%
Allstate Road	West	8	1%
South Bay Center - Southampton	East/Southeast	187	16%
South Bay Center - Southampton	West	90	8%
South Bay Center - Southampton	North	0	0%
South Bay Center North - Frontage Rd	South	100	8%
South Bay Center South - Frontage Rd	South	79	7%
	Total	1,199	100%

Saturday Midday Peak Hour (12:00 PM - 1:00 PM)

Access Location	To Direction	Volume	%
South Bay Center North - Mass Ave	North	322	20%
South Bay Center North - Mass Ave	South	14	1%
Allstate Road	North	208	13%
Allstate Road	South	339	21%
Allstate Road	West	2	0%
South Bay Center - Southampton	East/Southeast	326	20%
South Bay Center - Southampton	West	188	11%
South Bay Center - Southampton	North	1	0%
South Bay Center North - Frontage Rd	South	101	6%
South Bay Center South - Frontage Rd	South	138	8%
	Total	1,639	100%

Average Exiting Distribution Patterns

		% Distribution			
Access Location	To Direction	AM	PM	Sat	Avg
South Bay Center North - Mass Ave	North	24%	24%	20%	**23%**
South Bay Center North - Mass Ave	South	1%	2%	1%	**1%**
Allstate Road	North	6%	8%	13%	**9%**
Allstate Road	South	14%	27%	21%	**20%**
Allstate Road	West	1%	1%	0%	**1%**
South Bay Center - Southampton	East	30%	16%	20%	**22%**
South Bay Center - Southampton	West	17%	8%	11%	**12%**
South Bay Center - Southampton	North	0%	0%	0%	**0%**
South Bay Center North - Frontage Rd	South	4%	8%	6%	**6%**
South Bay Center South - Frontage Rd	South	3%	7%	8%	**6%**
	Total	100%	100%	100%	**100%**

□ Capacity Analyses

Baseline Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	992	267	303	1063	584	326	587	519	270	434	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.993	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			34			517		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	7%	12%	18%	6%	5%	7%	11%	10%	6%	11%	7%
Adj. Flow (vph)	0	1044	281	319	1119	615	343	618	546	284	457	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1044	281	319	1119	615	343	618	546	284	480	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		43.0		21.0	64.0		20.0	35.0		21.0	36.0	
Total Split (%)		35.8%		17.5%	53.3%		16.7%	29.2%		17.5%	30.0%	
Maximum Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		37.0	56.9	14.6	57.6	77.2	13.9	30.8	120.0	13.6	30.5	
Actuated g/C Ratio		0.31	0.47	0.12	0.48	0.64	0.12	0.26	1.00	0.11	0.25	
v/c Ratio		1.00	0.39	0.88	0.68	0.61	0.91	0.74	0.37	0.76	0.58	
Control Delay		70.5	15.7	77.3	26.8	14.7	80.7	47.7	0.7	65.2	42.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		70.5	15.7	77.3	26.8	14.7	80.7	47.7	0.7	65.2	42.3	
LOS		E	B	E	C	B	F	D	A	E	D	
Approach Delay		58.9			31.0			38.2			50.8	
Approach LOS		E			C			D			D	
90th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
90th %ile Term Code		Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		37.0		15.0	58.0		14.0	29.4		14.6	30.0	
50th %ile Term Code		Max		Max	Hold		Max	Coord		Gap	Coord	
30th %ile Green (s)		37.0		15.0	58.0		14.0	31.1		12.9	30.0	
30th %ile Term Code		Max		Max	Hold		Max	Coord		Gap	Coord	
10th %ile Green (s)		37.0		13.1	56.1		13.4	35.5		10.4	32.5	
10th %ile Term Code		Max		Gap	Hold		Gap	Coord		Gap	Coord	
Queue Length 50th (ft)		~427	94	126	341	236	137	235	0	110	171	
Queue Length 95th (ft)		#578	162	#204	418	341	#222	307	0	157	228	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1040	728	371	1646	1009	381	834	1468	412	825	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.00	0.39	0.86	0.68	0.61	0.90	0.74	0.37	0.69	0.58	

Intersection Summary

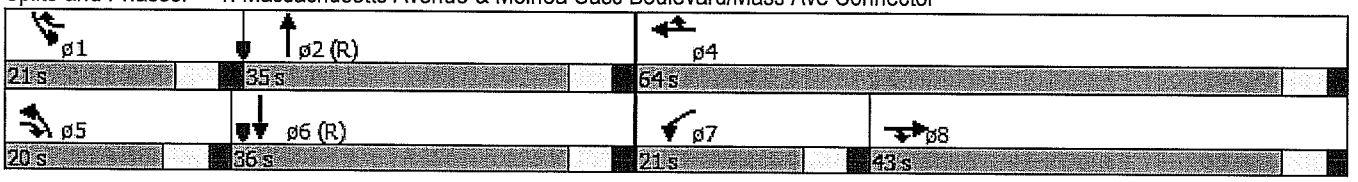
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 42.1
Intersection LOS: D
Intersection Capacity Utilization 80.0%
ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	0	69	0	0	0	121	410	0	3	410	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912										0.850
Flt Protected		0.983					0.950					
Satd. Flow (prot)	0	1703	0	0	0	0	1805	1696	0	0	1713	1615
Flt Permitted		0.983					0.456				0.778	
Satd. Flow (perm)	0	1703	0	0	0	0	866	1696	0	0	1333	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										145
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	11%	0%
Adj. Flow (vph)	40	0	74	0	0	0	130	441	0	3	441	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	0	0	130	441	0	0	444	145
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	25.0	25.0					14.0			30.0	30.0	30.0
Total Split (%)	27.8%	27.8%					15.6%			33.3%	33.3%	33.3%
Maximum Green (s)	21.0	21.0					10.0			26.0	26.0	26.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.1					70.7	75.5			60.7	60.7
Actuated g/C Ratio		0.11					0.79	0.84			0.67	0.67
v/c Ratio		0.40					0.17	0.31			0.49	0.13
Control Delay		12.9					1.7	1.9			10.4	1.4
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		12.9					1.7	1.9			10.4	1.4
LOS		B					A	A			B	A
Approach Delay		12.9						1.8			8.2	
Approach LOS		B						A			A	
90th %ile Green (s)	10.5	10.5					10.0			57.5	57.5	57.5
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
70th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
50th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
50th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0					10.0			72.0	72.0	72.0
10th %ile Term Code	Skip	Skip					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		3					9	32			120	0
Queue Length 95th (ft)		51					14	43			199	19
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		480					784	1422			899	1136
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.24					0.17	0.31			0.49	0.13

Intersection Summary

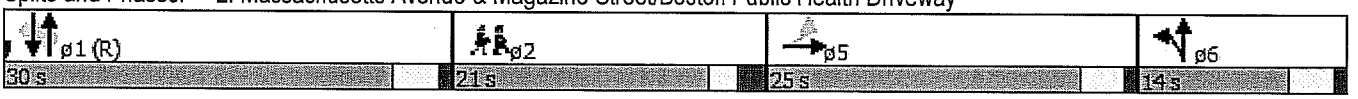
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 5.8
Intersection LOS: A
Intersection Capacity Utilization 61.7%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	211	137	47	62	71	109	358	463	48	344	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.941			0.920				0.850		0.983	
Flt Protected	0.950			0.950			0.950				0.995	
Satd. Flow (prot)	1752	1706	0	1626	1665	0	1822	1900	1422	0	3406	0
Flt Permitted	0.950			0.950			0.483				0.876	
Satd. Flow (perm)	1752	1706	0	1626	1665	0	926	1900	1422	0	2999	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			61				351		16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	6%	3%	11%	16%	15%	9%	10%	6%	16%	9%	16%
Adj. Flow (vph)	25	213	138	47	63	72	110	362	468	48	347	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	351	0	47	135	0	110	362	468	0	447	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		27.0	27.0		34.0	34.0	27.0	34.0	34.0	
Total Split (%)	27.8%	27.8%		30.0%	30.0%		37.8%	37.8%	30.0%	37.8%	37.8%	
Maximum Green (s)	20.0	20.0		22.0	22.0		28.0	28.0	22.0	28.0	28.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	19.0	19.0		11.2	11.2		43.8	43.8	61.0		43.8	
Actuated g/C Ratio	0.21	0.21		0.12	0.12		0.49	0.49	0.68		0.49	
v/c Ratio	0.07	0.91		0.23	0.52		0.24	0.39	0.43		0.30	
Control Delay	28.3	60.4		36.4	27.2		17.3	17.6	3.0		10.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	28.3	60.4		36.4	27.2		17.3	17.6	3.0		10.1	
LOS	C	E		D	C		B	B	A		B	
Approach Delay		58.3			29.6			10.3			10.1	
Approach LOS		E			C			B			B	
90th %ile Green (s)	20.0	20.0		18.7	18.7		35.3	35.3	18.7	35.3	35.3	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	20.0	20.0		11.9	11.9		42.1	42.1	11.9	42.1	42.1	
70th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	20.0	20.0		9.5	9.5		44.5	44.5	9.5	44.5	44.5	
50th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	19.9	19.9		8.0	8.0		46.1	46.1	8.0	46.1	46.1	
30th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	15.2	15.2		8.0	8.0		50.8	50.8	8.0	50.8	50.8	
10th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	11	176		25	40		34	123	21		35	
Queue Length 95th (ft)	32	#331		51	86		85	232	56		67	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	389	404		397	453		450	923	1072		1466	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.06	0.87		0.12	0.30		0.24	0.39	0.44		0.30	

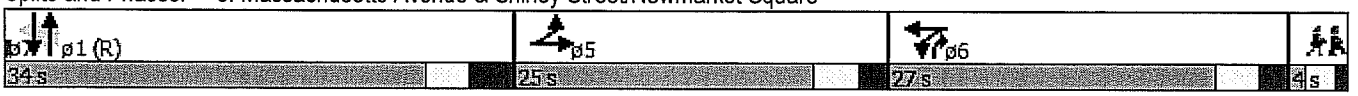
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 75.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	203	727	58	211	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	5	5	12	3	11
Mvmt Flow	6	207	742	59	215	323

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1363	401	0	0	801	0
Stage 1	771	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Critical Hdwy	6.8	7	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.35	-	-	2.23	-
Pot Cap-1 Maneuver	141	590	-	-	812	-
Stage 1	422	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	95	590	-	-	812	-
Mov Cap-2 Maneuver	218	-	-	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	353	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	4.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	218	590	812	-
HCM Lane V/C Ratio	-	-	0.028	0.351	0.265	-
HCM Control Delay (s)	-	-	22	14.4	11	0.8
HCM Lane LOS	-	-	C	B	B	A
HCM 95th %tile Q(veh)	-	-	0.1	1.6	1.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	56	41	116	12	48	23	685	220	23	288	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.958			0.880			0.964			0.994	
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	2681	0	1736	1472	0	1805	3791	0	1736	1707	0
Flt Permitted		0.843		0.950			0.445			0.149		
Satd. Flow (perm)	0	2299	0	1736	1472	0	846	3791	0	272	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			51			32			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	20%	38%	20%	4%	20%	12%	0%	5%	1%	4%	10%	25%
Adj. Flow (vph)	55	60	44	123	13	51	24	729	234	24	306	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	123	64	0	24	963	0	24	319	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		25.0		11.2	37.6		26.8	26.8		26.8	26.8	
Actuated g/C Ratio		0.33		0.15	0.49		0.35	0.35		0.35	0.35	
v/c Ratio		1.25dl		0.48	0.09		0.08	0.71		0.25	0.53	
Control Delay		51.5		41.2	3.2		25.7	29.1		35.3	29.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		51.5		41.2	3.2		25.7	29.1		35.3	29.6	
LOS		D		D	A		C	C		D	C	
Approach Delay		51.5			28.2			29.0			29.9	
Approach LOS		D			C			C			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	37.9		13.5	56.4		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	26.8		11.6	43.4		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	18.1		9.2	32.3		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	10.0		0.0	10.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Min		Skip	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		27		57	3		8	220		9	131	
Queue Length 95th (ft)		#86		124	18		32	#418		40	270	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		293		366	959		297	1353		95	601	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.54		0.34	0.07		0.08	0.71		0.25	0.53	

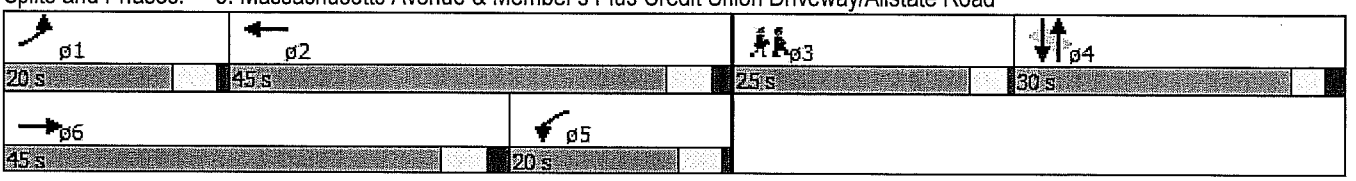
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 76.2
Natural Cycle: 75
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 31.3 Intersection LOS: C
Intersection Capacity Utilization 48.2% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 92.4
50th %ile Actuated Cycle: 79.4
30th %ile Actuated Cycle: 68.3
10th %ile Actuated Cycle: 46
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	163	59	0	0	109	0	34	0
Peak Hour Factor	0.92	0.81	0.81	0.92	0.81	0.81	0.92	0.81	0.81
Heavy Vehicles, %	2	5	2	2	0	12	2	0	0
Mvmt Flow	0	201	73	0	0	135	0	42	0
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.6	8.5	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	163	59	109
LT Vol	34	0	0	0
Through Vol	0	163	0	109
RT Vol	0	0	59	0
Lane Flow Rate	42	201	73	135
Geometry Grp	2	7	7	5
Degree of Util (X)	0.058	0.264	0.08	0.172
Departure Headway (Hd)	5.012	4.726	3.974	4.589
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	753	891	786
Service Time	3.02	2.5	1.747	2.593
HCM Lane V/C Ratio	0.058	0.267	0.082	0.172
HCM Control Delay	8.3	9.2	7.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.1	0.3	0.6

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	29	174	754	9	50	395
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	3	5	0	18	8
Mvmt Flow	32	193	838	10	56	439

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1174	424	0	0	848	0
Stage 1	843	-	-	-	-	-
Stage 2	331	-	-	-	-	-
Critical Hdwy	6.8	6.96	-	-	4.46	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.33	-	-	2.38	-
Pot Cap-1 Maneuver	188	576	-	-	691	-
Stage 1	388	-	-	-	-	-
Stage 2	706	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	168	576	-	-	691	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	388	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.4	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	428	691	-
HCM Lane V/C Ratio	-	-	0.527	0.08	-
HCM Control Delay (s)	-	-	22.4	10.7	0.5
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	3	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	363	536	398	52	269	6	337	271	271	8	184	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.997			0.925			0.937	
Flt Protected	0.950				0.992		0.950				0.999	
Satd. Flow (prot)	3433	1792	1524	0	3230	0	3242	1674	0	0	3075	0
Flt Permitted	0.950				0.757		0.950				0.588	
Satd. Flow (perm)	3433	1792	1524	0	2465	0	3242	1674	0	0	1810	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			423		2			51			147	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	6%	4%	12%	0%	8%	6%	4%	27%	9%	10%
Adj. Flow (vph)	386	570	423	55	286	6	359	288	288	9	196	149
Shared Lane Traffic (%)												
Lane Group Flow (vph)	386	570	423	0	347	0	359	576	0	0	354	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		18.0	24.0	24.0		18.0			16.0	16.0	
Total Split (%)	15.0%		18.0%	24.0%	24.0%		18.0%			16.0%	16.0%	
Maximum Green (s)	11.0		14.0	19.0	19.0		14.0			11.0	11.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	80.0		46.0		14.0	30.0			11.0	
Actuated g/C Ratio	0.11	0.61	0.80		0.46		0.14	0.30			0.11	
v/c Ratio	1.02	0.52	0.32		0.31		0.79	1.07			1.08	
Control Delay	97.5	13.3	0.9		17.8		55.6	91.9			97.6	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	97.5	13.3	0.9		17.8		55.6	91.9			97.6	
LOS	F	B	A		B		E	F			F	
Approach Delay		33.1			17.8			78.0			97.6	
Approach LOS		C			B			E			F	
90th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~135	191	0		70		115	~386			~85	
Queue Length 95th (ft)	#228	279	15		103		#181	#598			#180	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	377	1093	1303		1134		453	537			329	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.02	0.52	0.32		0.31		0.79	1.07			1.08	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

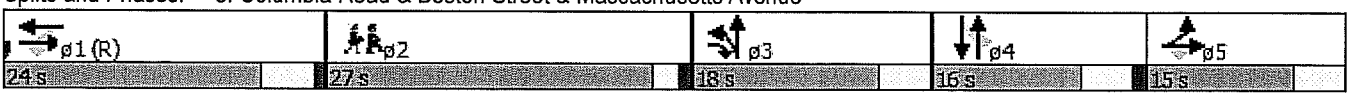
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 52.8 Intersection LOS: D
Intersection Capacity Utilization 97.2% ICU Level of Service F
Analysis Period (min) 15

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	423	50	157	332	110	47	181	410	125	145	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.963				0.850		0.967	
Flt Protected	0.950			0.950				0.990		0.950		
Satd. Flow (prot)	1626	3304	0	1612	3623	0	0	1614	1538	1719	1632	0
Flt Permitted	0.950			0.950				0.731		0.422		
Satd. Flow (perm)	1626	3304	0	1612	3623	0	0	1192	1538	764	1632	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			38				436		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	11%	7%	12%	12%	10%	5%	11%	18%	5%	5%	15%	4%
Adj. Flow (vph)	47	450	53	167	353	117	50	193	436	133	154	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	503	0	167	470	0	0	243	436	133	197	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	16.0	27.0		19.0	30.0		29.0	29.0	19.0	29.0	29.0	
Total Split (%)	14.5%	24.5%		17.3%	27.3%		26.4%	26.4%	17.3%	26.4%	26.4%	
Maximum Green (s)	10.0	21.0		13.0	24.0		22.0	22.0	13.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.6	56.3		12.7	63.2			22.0	73.6	22.0	22.0	
Actuated g/C Ratio	0.08	0.51		0.12	0.57			0.20	0.67	0.20	0.20	
v/c Ratio	0.37	0.30		0.90	0.22			1.02	0.37	0.88	0.59	
Control Delay	56.5	15.8		93.1	11.5			108.4	1.5	90.4	45.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	56.5	15.8		93.1	11.5			108.4	1.5	90.4	45.7	
LOS	E	B		F	B			F	A	F	D	
Approach Delay		19.3			32.9			39.8			63.7	
Approach LOS		B			C			D			E	
90th %ile Green (s)	10.0	56.0		13.0	59.0		22.0	22.0	13.0	22.0	22.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	9.0	56.0		13.0	60.0		22.0	22.0	13.0	22.0	22.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	57.5		11.5	75.0		22.0	22.0	11.5	22.0	22.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	32	101		118	77			~182	0	92	120	
Queue Length 95th (ft)	70	137		#243	111			#341	30	#209	198	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	147	1695		190	2097			238	1173	152	335	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.32	0.30		0.88	0.22			1.02	0.37	0.88	0.59	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	32%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

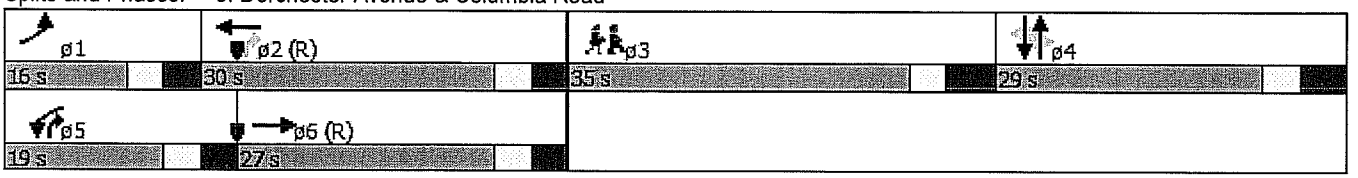
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 36.2 Intersection LOS: D
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	7	13	488	426	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	12	22	19	8	9	12
Mvmt Flow	23	8	14	525	458	83

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1052	499	541	0	-	0
Stage 1	499	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.52	6.42	4.29	-	-	-
Critical Hdwy Stg 1	5.52	-	-	-	-	-
Critical Hdwy Stg 2	5.52	-	-	-	-	-
Follow-up Hdwy	3.608	3.498	2.371	-	-	-
Pot Cap-1 Maneuver	240	533	947	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	557	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	235	533	947	-	-	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	590	-	-	-	-	-
Stage 2	545	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	947	-	273	-	-
HCM Lane V/C Ratio	0.015	-	0.11	-	-
HCM Control Delay (s)	8.9	0	19.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	2	13	0	0	0	15	395	49	31	365	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	21	0	0	0	0	10	1	2	14	13
Mvmt Flow	11	2	14	0	0	0	16	434	54	34	401	24

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	975	1002	413	425	0	0	488	0	0
Stage 1	481	481	-	-	-	-	-	-	-
Stage 2	494	521	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.41	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.489	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	253	244	600	1145	-	-	1075	-	-
Stage 1	577	557	-	-	-	-	-	-	-
Stage 2	569	535	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	238	0	600	1145	-	-	1075	-	-
Mov Cap-2 Maneuver	238	0	-	-	-	-	-	-	-
Stage 1	553	0	-	-	-	-	-	-	-
Stage 2	558	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.8	0.3	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1145	-	-	361	1075	-	-
HCM Lane V/C Ratio	0.014	-	-	0.076	0.032	-	-
HCM Control Delay (s)	8.2	0	-	15.8	8.5	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	75	46	280	0	0	0	0	414	4	7	269	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.871						0.999				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1561	0	0	0	0	0	1759	0	0	1761	0
Flt Permitted	0.950										0.990	
Satd. Flow (perm)	1770	1561	0	0	0	0	0	1759	0	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		287						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			230			362			550	
Travel Time (s)		7.0			5.2			8.2			12.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	2%	0%	7%	0%	0%	0%	0%	8%	0%	0%	8%	0%
Adj. Flow (vph)	84	52	315	0	0	0	0	465	4	8	302	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	367	0	0	0	0	0	469	0	0	310	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	10.6	10.6						45.1			45.1	
Actuated g/C Ratio	0.16	0.16						0.69			0.69	
v/c Ratio	0.30	0.75						0.39			0.26	
Control Delay	26.6	16.9						6.2			5.2	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	26.6	16.9						6.2			5.2	
LOS	C	B						A			A	
Approach Delay		18.7						6.2			5.2	
Approach LOS		B						A			A	
90th %ile Green (s)	17.9	17.9						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	11.5	11.5						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.3	8.3						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
10th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
Queue Length 50th (ft)	30	29						54			32	
Queue Length 95th (ft)	64	103						153			94	
Internal Link Dist (ft)		228			150			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	675	772						1208			1198	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.12	0.48						0.39			0.26	

Intersection Summary

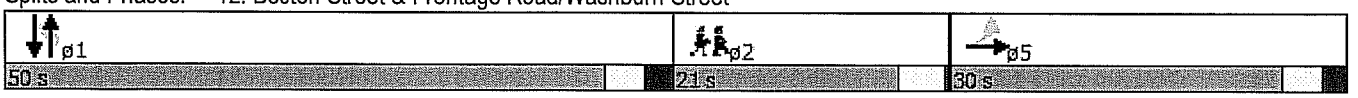
Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 65.7
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 10.5
Intersection LOS: B
Intersection Capacity Utilization 50.1%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 72.9
70th %ile Actuated Cycle: 66.5
50th %ile Actuated Cycle: 63.3
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 63

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	93	112	158	16	15	12	48	334	15	5	2	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.976					0.993				
Flt Protected		0.950						0.993				
Satd. Flow (prot)	0	1616	1756	0	0	0	0	3314	0	0	0	0
Flt Permitted		0.251						0.863				
Satd. Flow (perm)	0	427	1756	0	0	0	0	2880	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			3					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	15%	9%	6%	0%	7%	33%	19%	5%	0%	20%	0%	8%
Adj. Flow (vph)	94	113	160	16	15	12	48	337	15	5	2	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	191	0	0	0	0	417	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	134	94	10	8	10	44	74	50	184	140	102	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.958					0.899					0.994	
Flt Protected	0.982					0.995					0.965	
Satd. Flow (prot)	3093	0	0	0	0	2511	0	0	0	0	3120	0
Flt Permitted	0.766					0.889					0.965	
Satd. Flow (perm)	2413	0	0	0	0	2244	0	0	0	0	3120	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	2					33						
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	8%	15%	10%	38%	30%	23%	27%	34%	11%	11%	12%	5%
Adj. Flow (vph)	135	95	10	8	10	44	75	51	186	141	103	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	374	0	0	0	0	188	0	0	0	0	449	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations					
Volume (vph)	2	38	98	184	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	
Storage Lanes		0		0	
Taper Length (ft)		25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95
Frt			0.912		
Flt Protected			0.994		
Satd. Flow (prot)	0	0	2973	0	0
Flt Permitted			0.994		
Satd. Flow (perm)	0	0	2973	0	0
Right Turn on Red					Yes
Satd. Flow (RTOR)			2		
Link Speed (mph)			30		
Link Distance (ft)			1221		
Travel Time (s)			27.8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	16%	12%	8%	9%
Adj. Flow (vph)	2	38	99	186	11
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	0	336	0	0
Enter Blocked Intersection	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right
Median Width(ft)			0		
Link Offset(ft)			0		
Crosswalk Width(ft)			16		
Two way Left Turn Lane					
Headway Factor	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	9
Number of Detectors	1	1	2		
Detector Template	Left	Left	Thru		
Leading Detector (ft)	20	20	100		
Trailing Detector (ft)	0	0	0		
Detector 1 Position(ft)	0	0	0		
Detector 1 Size(ft)	20	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel					
Detector 1 Extend (s)	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		
Detector 2 Position(ft)			94		
Detector 2 Size(ft)			6		
Detector 2 Type			Cl+Ex		
Detector 2 Channel					
Detector 2 Extend (s)			0.0		
Turn Type	Split	Split	NA		
Protected Phases	7	7	7		
Permitted Phases					

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	14.0	14.0	14.0			29.0	29.0	29.0			42.0	42.0
Total Split (%)	9.3%	9.3%	9.3%			19.3%	19.3%	19.3%			28.0%	28.0%
Maximum Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		35.0	39.0					23.0				
Actuated g/C Ratio		0.23	0.26					0.15				
v/c Ratio		1.16	0.42					0.94				
Control Delay		161.9	48.7					93.1				
Queue Delay		0.0	0.0					0.0				
Total Delay		161.9	48.7					93.1				
LOS		F	D					F				
Approach Delay			107.5					93.1				
Approach LOS			F					F				
90th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			37.4	37.4
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			42.2	42.2
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	10.0	10.0	10.0			22.9	22.9	22.9			49.4	49.4
10th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
Queue Length 50th (ft)		~205	154					215				
Queue Length 95th (ft)		#335	232					#324				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		178	458					442				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.16	0.42					0.94				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	42.0			42.0	42.0	42.0			35.0	35.0	35.0	
Total Split (%)	28.0%			28.0%	28.0%	28.0%			23.3%	23.3%	23.3%	
Maximum Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	39.8					39.8					25.4	
Actuated g/C Ratio	0.27					0.27					0.17	
v/c Ratio	0.58					0.30					1.19dl	
Control Delay	53.2					39.0					76.0	
Queue Delay	0.0					0.0					0.0	
Total Delay	53.2					39.0					76.0	
LOS	D					D					E	
Approach Delay	53.2					39.0					76.0	
Approach LOS	D					D					E	
90th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
70th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
50th %ile Green (s)	37.4			37.4	37.4	37.4			26.6	26.6	26.6	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	42.2			42.2	42.2	42.2			24.1	24.1	24.1	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	49.4			49.4	49.4	49.4			20.4	20.4	20.4	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	171					65					225	
Queue Length 95th (ft)	235					105					287	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	641					619					582	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.58					0.30					0.77	

Intersection Summary

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Detector Phase	7	7	7		
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0		
Minimum Split (s)	17.0	17.0	17.0		
Total Split (s)	30.0	30.0	30.0		
Total Split (%)	20.0%	20.0%	20.0%		
Maximum Green (s)	23.0	23.0	23.0		
Yellow Time (s)	3.0	3.0	3.0		
All-Red Time (s)	4.0	4.0	4.0		
Lost Time Adjust (s)			0.0		
Total Lost Time (s)			7.0		
Lead/Lag	Lead	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0		
Recall Mode	None	None	None		
Act Effct Green (s)			20.8		
Actuated g/C Ratio			0.14		
v/c Ratio			0.93dr		
Control Delay			78.1		
Queue Delay			0.0		
Total Delay			78.1		
LOS			E		
Approach Delay			78.1		
Approach LOS			E		
90th %ile Green (s)	23.0	23.0	23.0		
90th %ile Term Code	Max	Max	Max		
70th %ile Green (s)	23.0	23.0	23.0		
70th %ile Term Code	Max	Max	Max		
50th %ile Green (s)	22.0	22.0	22.0		
50th %ile Term Code	Gap	Gap	Gap		
30th %ile Green (s)	19.7	19.7	19.7		
30th %ile Term Code	Gap	Gap	Gap		
10th %ile Green (s)	16.3	16.3	16.3		
10th %ile Term Code	Gap	Gap	Gap		
Queue Length 50th (ft)			167		
Queue Length 95th (ft)			224		
Internal Link Dist (ft)			1141		
Turn Bay Length (ft)					
Base Capacity (vph)			457		
Starvation Cap Reductn			0		
Spillback Cap Reductn			0		
Storage Cap Reductn			0		
Reduced v/c Ratio			0.74		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.16
Intersection Signal Delay: 78.2
Intersection LOS: E
Intersection Capacity Utilization 97.7%
ICU Level of Service F
Analysis Period (min) 15

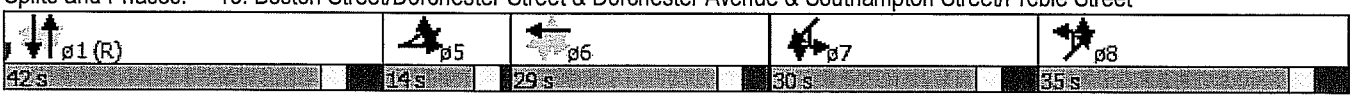
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	456	363	0	0	564	412	360	24	90	0	0	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.993					0.950	0.958				
Satd. Flow (prot)	1466	1846	0	0	3374	1743	1779	1629	1572	0	0	1757
Flt Permitted	0.950	0.993					0.950	0.958				
Satd. Flow (perm)	1466	1846	0	0	3374	1743	1779	1629	1572	0	0	1757
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						151			109			114
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	17%	9%	0%	0%	7%	5%	6%	7%	13%	0%	0%	6%
Adj. Flow (vph)	480	382	0	0	594	434	379	25	95	0	0	55
Shared Lane Traffic (%)	12%						47%					
Lane Group Flow (vph)	422	440	0	0	594	434	201	203	95	0	0	55
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

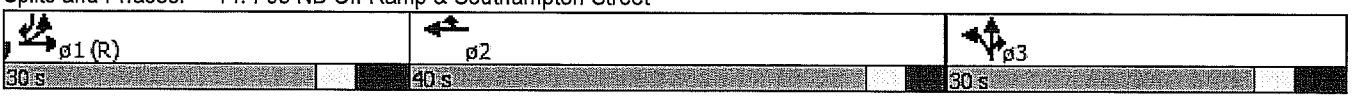
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	30.0	30.0			40.0	40.0	30.0	30.0	30.0			30.0
Total Split (%)	30.0%	30.0%			40.0%	40.0%	30.0%	30.0%	30.0%			30.0%
Maximum Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	29.1	29.1			34.0	34.0	16.9	16.9	16.9			29.1
Actuated g/C Ratio	0.29	0.29			0.34	0.34	0.17	0.17	0.17			0.29
v/c Ratio	0.99	0.82			0.52	0.63	0.67	0.74	0.27			0.09
Control Delay	68.0	38.7			28.4	22.2	49.5	55.1	7.0			0.3
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	68.0	38.7			28.4	22.2	49.5	55.1	7.0			0.3
LOS	E	D			C	C	D	E	A			A
Approach Delay		53.0			25.8			43.7				
Approach LOS		D			C			D				
90th %ile Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	25.7	25.7			34.0	34.0	20.3	20.3	20.3			25.7
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	29.2	29.2			34.0	34.0	16.8	16.8	16.8			29.2
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	31.9	31.9			34.0	34.0	14.1	14.1	14.1			31.9
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	35.9	35.9			34.0	34.0	10.1	10.1	10.1			35.9
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	286	283			158	149	127	130	0			0
Queue Length 95th (ft)	#555	#517			212	255	192	198	32			1
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	427	537			1147	692	409	374	445			592
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.99	0.82			0.52	0.63	0.49	0.54	0.21			0.09

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Offset: 5 (5%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 38.5 Intersection LOS: D
Intersection Capacity Utilization 74.9% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	29	0	0	189	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	10	18
Mvmt Flow	0	31	0	0	201	293

Major/Minor	Minor2		Major2	
Conflicting Flow All	201	201	-	0
Stage 1	201	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.22	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-
Pot Cap-1 Maneuver	762	840	-	-
Stage 1	805	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	762	840	-	-
Mov Cap-2 Maneuver	762	-	-	-
Stage 1	805	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	9.4	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	840	-	-
HCM Lane V/C Ratio	0.037	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	36	0	0	1040	0	0	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1644	0	0	3312	0	0	2515
Flt Permitted								
Satd. Flow (perm)	0	1644	0	0	3312	0	0	2515
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	9%	0%	0%	13%
Adj. Flow (vph)	0	39	0	0	1118	0	0	254
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	39	0	0	1118	0	0	254
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

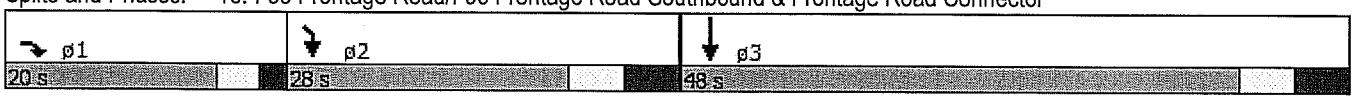
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.10			0.48			0.24
v/c Ratio		0.13			0.70			0.42
Control Delay		0.9			21.1			30.7
Queue Delay		0.0			0.0			0.0
Total Delay		0.9			21.1			30.7
LOS		A			C			C
Approach Delay					21.1			
Approach LOS					C			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		0.0			40.0			20.0
30th %ile Term Code		Skip			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			265			70
Queue Length 95th (ft)		0			345			110
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		417			1590			603
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.09			0.70			0.42

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 83.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 22.3 Intersection LOS: C

Intersection Capacity Utilization 61.2%
ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 76
10th %ile Actuated Cycle: 76

Splits and Phases: 16: I-93 Frontage Road/I-93 Frontage Road Southbound & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	571	168	43	57	148	770	1	142	0	247	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.959								0.850			
Flt Protected						0.990		0.950				
Satd. Flow (prot)	2951	0	0	0	0	3419	0	1492	1508	0	0	0
Flt Permitted						0.582		0.757				
Satd. Flow (perm)	2951	0	0	0	0	2010	0	1189	1508	0	0	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)	5								142			
Link Speed (mph)	30					30			30			
Link Distance (ft)	494					738			733			
Travel Time (s)	11.2					16.8			16.7			
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 (%)	21%	7%	9%	2%	3%	5%	0%	21%	0%	7%	9%	0%
Adj. Flow (vph)	621	183	47	62	161	837	1	154	0	268	12	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	851	0	0	0	0	1061	0	154	280	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right	Left
Median Width(ft)	0					0			12			
Link Offset(ft)	0					0			0			
Crosswalk Width(ft)	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	0.85	1.00	1.00
Turning Speed (mph)		9	9	15	15		9	15		9	9	15
Number of Detectors	2			1	1	2		1	2			1
Detector Template	Thru			Left	Left	Thru		Left	Thru			Left
Leading Detector (ft)	100			20	20	100		20	100			20
Trailing Detector (ft)	0			0	0	0		0	0			0
Detector 1 Position(ft)	0			0	0	0		0	0			0
Detector 1 Size(ft)	6			20	20	6		20	6			20
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 2 Position(ft)	94					94			94			
Detector 2 Size(ft)	6					6			6			
Detector 2 Type	Cl+Ex					Cl+Ex			Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0			0.0			
Turn Type	NA			pm+pt	pm+pt	NA		Perm	NA			Perm
Protected Phases	1			4	4	1 4			3			
Permitted Phases				1 4	1 4			3				3
Detector Phase	1			4	4	1 4		3	3			3
Switch Phase												

Lane Group	SBT	ø2
Lane Configurations	↕	
Volume (vph)	0	
Ideal Flow (vphpl)	1900	
Lane Width (ft)	12	
Lane Util. Factor	1.00	
Frt		
Flt Protected	0.950	
Satd. Flow (prot)	1805	
Flt Permitted	0.279	
Satd. Flow (perm)	530	
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	242	
Travel Time (s)	5.5	
Peak Hour Factor	0.92	
Heavy Vehicles (%)	0%	
Adj. Flow (vph)	0	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1	
Enter Blocked Intersection	No	
Lane Alignment	Left	
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)		
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	3	2
Permitted Phases		
Detector Phase	3	
Switch Phase		

Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Minimum Initial (s)	10.0			5.0	5.0			5.0	5.0			5.0
Minimum Split (s)	16.0			11.0	11.0			11.0	11.0			11.0
Total Split (s)	23.0			21.0	21.0			34.0	34.0			34.0
Total Split (%)	23.0%			21.0%	21.0%			34.0%	34.0%			34.0%
Maximum Green (s)	17.0			15.0	15.0			28.0	28.0			28.0
Yellow Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
All-Red Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
Lost Time Adjust (s)	0.0							0.0	0.0			
Total Lost Time (s)	6.0							6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0			2.0	2.0			2.0
Recall Mode	C-Max			None	None			None	None			None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	49.5					64.5		17.5	17.5			
Actuated g/C Ratio	0.50					0.64		0.18	0.18			
v/c Ratio	0.58					0.70		0.74	0.74			
Control Delay	21.0					6.8		59.2	29.9			
Queue Delay	0.0					0.0		0.0	0.0			
Total Delay	21.0					6.8		59.2	29.9			
LOS	C					A		E	C			
Approach Delay	21.0					6.8			40.3			
Approach LOS	C					A			D			
90th %ile Green (s)	41.1			15.0	15.0			25.9	25.9			25.9
90th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
70th %ile Green (s)	46.4			15.0	15.0			20.6	20.6			20.6
70th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
50th %ile Green (s)	49.6			15.0	15.0			17.4	17.4			17.4
50th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
30th %ile Green (s)	52.9			15.0	15.0			14.1	14.1			14.1
30th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
10th %ile Green (s)	57.6			15.0	15.0			9.4	9.4			9.4
10th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
Queue Length 50th (ft)	193					59		94	83			
Queue Length 95th (ft)	302					61		148	159			
Internal Link Dist (ft)	414					658			653			
Turn Bay Length (ft)												
Base Capacity (vph)	1463					1508		332	524			
Starvation Cap Reductn	0					0		0	0			
Spillback Cap Reductn	0					0		0	0			
Storage Cap Reductn	0					0		0	0			
Reduced v/c Ratio	0.58					0.70		0.46	0.53			

Intersection Summary

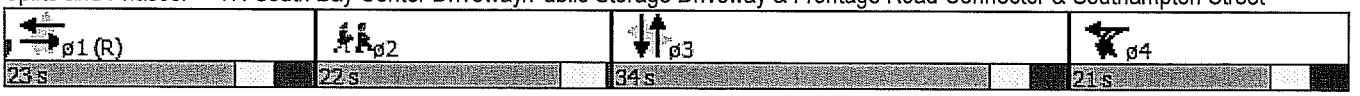
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Lane Group	SBT	ø2
Minimum Initial (s)	5.0	4.0
Minimum Split (s)	11.0	22.0
Total Split (s)	34.0	22.0
Total Split (%)	34.0%	22%
Maximum Green (s)	28.0	18.0
Yellow Time (s)	3.0	3.5
All-Red Time (s)	3.0	0.5
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		13.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)	17.5	
Actuated g/C Ratio	0.18	
v/c Ratio	0.01	
Control Delay	30.0	
Queue Delay	0.0	
Total Delay	30.0	
LOS	C	
Approach Delay	30.0	
Approach LOS	C	
90th %ile Green (s)	25.9	0.0
90th %ile Term Code	Gap	Skip
70th %ile Green (s)	20.6	0.0
70th %ile Term Code	Gap	Skip
50th %ile Green (s)	17.4	0.0
50th %ile Term Code	Gap	Skip
30th %ile Green (s)	14.1	0.0
30th %ile Term Code	Gap	Skip
10th %ile Green (s)	9.4	0.0
10th %ile Term Code	Gap	Skip
Queue Length 50th (ft)	1	
Queue Length 95th (ft)	5	
Internal Link Dist (ft)	162	
Turn Bay Length (ft)		
Base Capacity (vph)	148	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.01	

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.2 Intersection LOS: B
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	93	0	0	0	158	1144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.994
Satd. Flow (prot)	3433	0	0	0	0	3518
Flt Permitted	0.950					0.994
Satd. Flow (perm)	3433	0	0	0	0	3518
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	0	0	0	172	1243
Shared Lane Traffic (%)						
Lane Group Flow (vph)	101	0	0	0	0	1415
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0
Minimum Split (s)	15.0				17.0	17.0

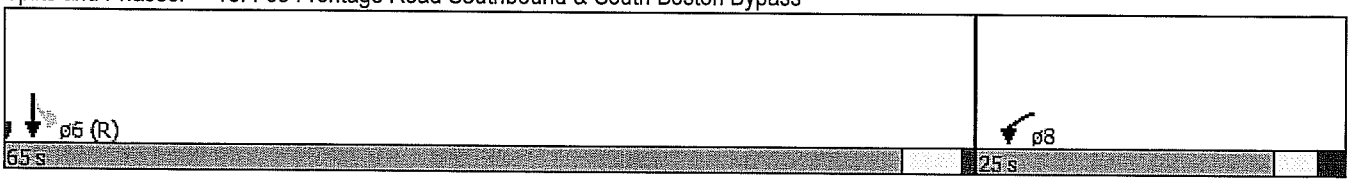
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Split (s)	25.0				65.0	65.0
Total Split (%)	27.8%				72.2%	72.2%
Maximum Green (s)	20.0				60.0	60.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.26					0.49
Control Delay	23.7					3.9
Queue Delay	0.0					0.0
Total Delay	23.7					3.9
LOS	C					A
Approach Delay	23.7					3.9
Approach LOS	C					A
90th %ile Green (s)	10.1				69.9	69.9
90th %ile Term Code	Gap				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	29					121
Queue Length 95th (ft)	m53					155
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	762					2892
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.13					0.49

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.49
Intersection Signal Delay: 5.2 Intersection LOS: A

Intersection Capacity Utilization 52.9%
ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	51	0	0	72	74	21	1561	111	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.924			0.990				
Flt Protected		0.967						0.999				
Satd. Flow (prot)	0	3422	0	0	3270	0	0	5029	0	0	0	0
Flt Permitted		0.710						0.999				
Satd. Flow (perm)	0	2513	0	0	3270	0	0	5029	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					23			22				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	116	55	0	0	78	80	23	1697	121	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	171	0	0	158	0	0	1841	0	0	0	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)		0			0			0			0	
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
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.31			0.21			0.59				
Control Delay		28.9			25.2			10.9				
Queue Delay		0.0			0.0			0.0				
Total Delay		28.9			25.2			10.9				
LOS		C			C			B				
Approach Delay		28.9			25.2			10.9				
Approach LOS		C			C			B				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		44			33			204				
Queue Length 95th (ft)		74			60			245				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		614			816			3137				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.28			0.19			0.59				

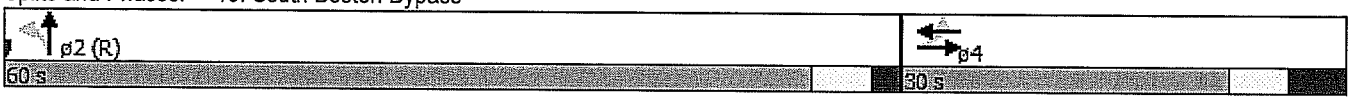
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 13.4 Intersection LOS: B

Intersection Capacity Utilization 84.7%
Analysis Period (min) 15

ICU Level of Service E

Splits and Phases: 19: South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	720	489	408	913	504	281	519	416	404	683	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			51			443			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	3%	8%	3%	3%	5%	5%	3%	4%	5%	0%
Adj. Flow (vph)	0	766	520	434	971	536	299	552	443	430	727	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	766	520	434	971	536	299	552	443	430	731	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		40.0		22.0	63.0		22.0	35.0		22.0	35.0	
Total Split (%)		33.3%		18.3%	52.5%		18.3%	29.2%		18.3%	29.2%	
Maximum Green (s)		34.0		16.0	57.0		16.0	29.0		16.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		32.0	52.2	16.0	54.0	76.0	14.2	32.0	120.0	16.0	33.8	
Actuated g/C Ratio		0.27	0.44	0.13	0.45	0.63	0.12	0.27	1.00	0.13	0.28	
v/c Ratio		0.84	0.71	1.00	0.62	0.53	0.76	0.60	0.28	0.96	0.76	
Control Delay		50.4	28.7	96.4	26.8	12.7	63.9	42.3	0.5	85.5	46.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		50.4	28.7	96.4	26.8	12.7	63.9	42.3	0.5	85.5	46.3	
LOS		D	C	F	C	B	E	D	A	F	D	
Approach Delay		41.6			38.5			33.0			60.8	
Approach LOS		D			D			C			E	
90th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
90th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
70th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		34.0		16.0	56.0		15.0	30.0		16.0	31.0	
50th %ile Term Code		Max		Max	Hold		Gap	Coord		Max	Coord	
30th %ile Green (s)		32.0		16.0	54.0		13.3	32.0		16.0	34.7	
30th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
10th %ile Green (s)		26.1		16.0	48.1		10.8	37.9		16.0	43.1	
10th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		288	263	~176	284	181	116	202	0	173	281	
Queue Length 95th (ft)		364	389	#285	352	267	163	264	0	#274	#380	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1002	706	432	1664	966	444	916	1568	448	966	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.76	0.74	1.00	0.58	0.55	0.67	0.60	0.28	0.96	0.76	

Intersection Summary

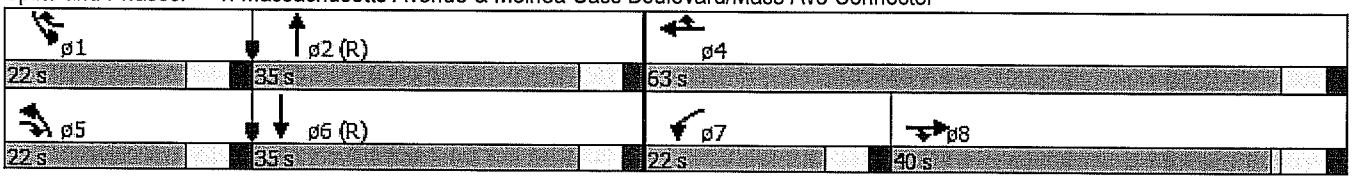
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 58 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 42.5
Intersection LOS: D
Intersection Capacity Utilization 78.6%
ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	0	121	0	0	0	69	234	0	1	453	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936										0.850
Flt Protected		0.974					0.950					
Satd. Flow (prot)	0	1698	0	0	0	0	1736	1810	0	0	1810	1524
Flt Permitted		0.974					0.403				0.849	
Satd. Flow (perm)	0	1698	0	0	0	0	736	1810	0	0	1536	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98										98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	4%	5%	0%	0%	5%	6%
Adj. Flow (vph)	147	0	132	0	0	0	75	254	0	1	492	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	279	0	0	0	0	75	254	0	0	493	40
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	37.0	37.0					13.0			29.0	29.0	29.0
Total Split (%)	37.0%	37.0%					13.0%			29.0%	29.0%	29.0%
Maximum Green (s)	33.0	33.0					9.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.0					71.0	75.0			62.0	62.0
Actuated g/C Ratio		0.17					0.71	0.75			0.62	0.62
v/c Ratio		0.76					0.12	0.19			0.52	0.04
Control Delay		37.9					3.7	3.5			14.3	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		37.9					3.7	3.5			14.3	0.1
LOS		D					A	A			B	A
Approach Delay		37.9						3.5			13.2	
Approach LOS		D						A			B	
90th %ile Green (s)	24.7	24.7					9.0			54.3	54.3	54.3
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	20.0	20.0					9.0			59.0	59.0	59.0
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	16.7	16.7					9.0			62.3	62.3	62.3
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	13.4	13.4					9.0			65.6	65.6	65.6
30th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					9.0			69.0	69.0	69.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		111					8	27			160	0
Queue Length 95th (ft)		185					22	56			303	0
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		626					612	1358			952	982
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.45					0.12	0.19			0.52	0.04

Intersection Summary

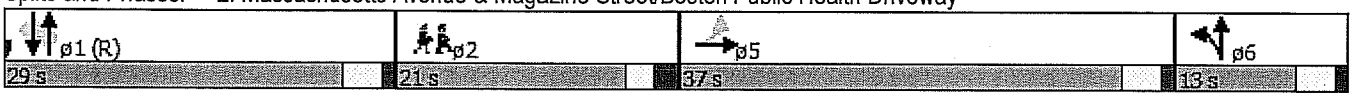
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 33 (33%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.5
Intersection LOS: B
Intersection Capacity Utilization 65.5%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	75	225	130	80	41	160	317	265	29	586	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	12	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.887			0.949				0.850		0.991	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1687	1652	0	1736	1876	0	1966	2029	1568	0	3677	0
Flt Permitted	0.950			0.950			0.358				0.927	
Satd. Flow (perm)	1687	1652	0	1736	1876	0	741	2029	1568	0	3416	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		138			23				276		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	7%	5%	1%	4%	3%	11%	1%	3%	3%	13%	3%	5%
Adj. Flow (vph)	30	78	234	135	83	43	167	330	276	30	610	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	312	0	135	126	0	167	330	276	0	681	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			15			15	
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	0.88	0.88	0.88	0.88	1.00	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	27.0	27.0		23.0	23.0		46.0	46.0	23.0	46.0	46.0	
Total Split (%)	27.0%	27.0%		23.0%	23.0%		46.0%	46.0%	23.0%	46.0%	46.0%	
Maximum Green (s)	22.0	22.0		18.0	18.0		40.0	40.0	18.0	40.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	15.5	15.5		12.6	12.6		55.9	55.9	74.5		55.9	
Actuated g/C Ratio	0.16	0.16		0.13	0.13		0.56	0.56	0.74		0.56	
v/c Ratio	0.11	0.84		0.62	0.49		0.40	0.29	0.22		0.36	
Control Delay	34.5	41.7		52.9	38.7		19.4	14.5	1.1		9.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	34.5	41.7		52.9	38.7		19.4	14.5	1.1		9.1	
LOS	C	D		D	D		B	B	A		A	
Approach Delay		41.1			46.0			10.8			9.1	
Approach LOS		D			D			B			A	
90th %ile Green (s)	22.0	22.0		18.0	18.0		44.0	44.0	18.0	44.0	44.0	
90th %ile Term Code	Max	Max		Max	Max		Coord	Coord	Max	Coord	Coord	
70th %ile Green (s)	19.4	19.4		15.1	15.1		49.5	49.5	15.1	49.5	49.5	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	15.8	15.8		12.1	12.1		56.1	56.1	12.1	56.1	56.1	
50th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	12.2	12.2		10.0	10.0		61.8	61.8	10.0	61.8	61.8	
30th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		68.0	68.0	8.0	68.0	68.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	17	109		83	62		57	104	0		57	
Queue Length 95th (ft)	40	196		136	112		144	206	24		122	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	371	471		312	356		413	1133	1233		1912	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.08	0.66		0.43	0.35		0.40	0.29	0.22		0.36	

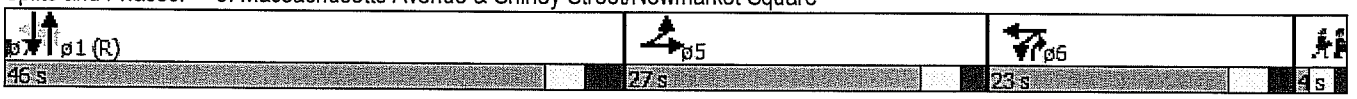
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 24 (24%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 78.3% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	288	454	43	360	582
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	8	2	2	9	1	4
Mvmt Flow	23	297	468	44	371	600

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1532	256	0	0	512	0
Stage 1	490	-	-	-	-	-
Stage 2	1042	-	-	-	-	-
Critical Hdwy	6.96	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.96	-	-	-	-	-
Critical Hdwy Stg 2	5.96	-	-	-	-	-
Follow-up Hdwy	3.58	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	101	743	-	-	1057	-
Stage 1	564	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	48	743	-	-	1057	-
Mov Cap-2 Maneuver	113	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	137	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	4.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	113	743	1057	-
HCM Lane V/C Ratio	-	-	0.201	0.4	0.351	-
HCM Control Delay (s)	-	-	44.7	13	10.2	1.2
HCM Lane LOS	-	-	E	B	B	A
HCM 95th %tile Q(veh)	-	-	0.7	1.9	1.6	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	14	14	324	8	101	12	387	271	76	523	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.943			0.861			0.938			0.999	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	3142	0	1770	1621	0	1504	3734	0	1770	1824	0
Flt Permitted		0.870		0.950			0.280			0.339		
Satd. Flow (perm)	0	2767	0	1770	1621	0	443	3734	0	631	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			104			134				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	15%	0%	9%	2%	0%	1%	20%	4%	1%	2%	4%	13%
Adj. Flow (vph)	9	14	14	334	8	104	12	399	279	78	539	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	37	0	334	112	0	12	678	0	78	544	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.2		15.3	19.7		25.5	25.5		25.5	25.5	
Actuated g/C Ratio		0.18		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		1.00dr		0.70	0.18		0.06	0.39		0.27	0.66	
Control Delay		20.4		31.0	3.8		13.4	10.1		16.0	19.7	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		20.4		31.0	3.8		13.4	10.1		16.0	19.7	
LOS		C		C	A		B	B		B	B	
Approach Delay		20.4			24.2			10.2			19.2	
Approach LOS		C			C			B			B	
90th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		3		83	2		2	44		12	103	
Queue Length 95th (ft)		17		#258	25		13	124		55	#344	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		685		479	1172		199	1759		285	823	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.05		0.70	0.10		0.06	0.39		0.27	0.66	

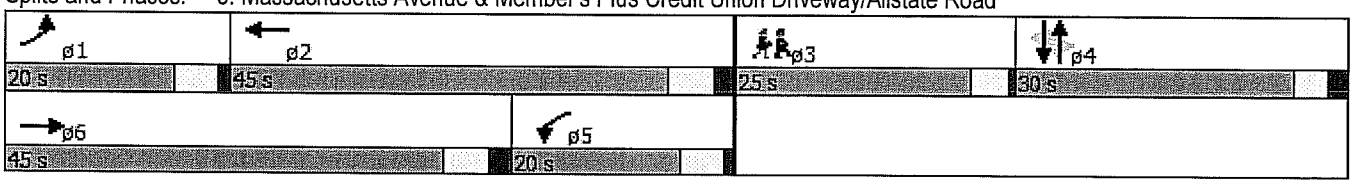
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 56.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 66
70th %ile Actuated Cycle: 66
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	192	128	0	2	195	0	114	4
Peak Hour Factor	0.92	0.93	0.93	0.92	0.93	0.93	0.92	0.93	0.93
Heavy Vehicles, %	2	1	1	2	0	0	2	1	17
Mvmt Flow	0	206	138	0	2	210	0	123	4
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9	9.5	9.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	97%	0%	0%	1%
Vol Thru, %	0%	100%	0%	99%
Vol Right, %	3%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	192	128	197
LT Vol	114	0	0	2
Through Vol	0	192	0	195
RT Vol	4	0	128	0
Lane Flow Rate	127	206	138	212
Geometry Grp	2	7	7	5
Degree of Util (X)	0.187	0.289	0.166	0.277
Departure Headway (Hd)	5.292	5.039	4.335	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	712	826	763
Service Time	3.339	2.775	2.07	2.742
HCM Lane V/C Ratio	0.188	0.289	0.167	0.278
HCM Control Delay	9.6	9.8	7.9	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	1.2	0.6	1.1

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	117	553	9	72	789
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	3	0	3	6	2
Mvmt Flow	24	126	595	10	77	848

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1178	302	0	0	604	0
Stage 1	599	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Critical Hdwy	6.84	6.96	-	-	4.22	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.33	-	-	2.26	-
Pot Cap-1 Maneuver	184	691	-	-	943	-
Stage 1	511	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	156	691	-	-	943	-
Mov Cap-2 Maneuver	156	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	443	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	1.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	448	943	-
HCM Lane V/C Ratio	-	-	0.334	0.082	-
HCM Control Delay (s)	-	-	17	9.2	0.6
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	276	331	449	75	318	8	371	257	106	11	497	269
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.997			0.956			0.948	
Flt Protected	0.950				0.991		0.950				0.999	
Satd. Flow (prot)	3400	1792	1568	0	3420	0	3303	1774	0	0	3319	0
Flt Permitted	0.950				0.796		0.950				0.944	
Satd. Flow (perm)	3400	1792	1568	0	2747	0	3303	1774	0	0	3136	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			473		1			18			66	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	6%	3%	6%	4%	0%	6%	3%	1%	4%	3%	3%
Adj. Flow (vph)	291	348	473	79	335	8	391	271	112	12	523	283
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	348	473	0	422	0	391	383	0	0	818	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	19.0		19.0	35.0	35.0		19.0			20.0	20.0	
Total Split (%)	15.8%		15.8%	29.2%	29.2%		15.8%			16.7%	16.7%	
Maximum Green (s)	15.0		15.0	30.0	30.0		15.0			15.0	15.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	14.3	76.0	96.0		57.7		15.0	35.0			15.0	
Actuated g/C Ratio	0.12	0.63	0.80		0.48		0.12	0.29			0.12	
v/c Ratio	0.72	0.31	0.35		0.32		0.95	0.72			1.82	
Control Delay	61.5	10.9	1.0		20.1		80.7	42.8			406.8	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	61.5	10.9	1.0		20.1		80.7	42.8			406.8	
LOS	E	B	A		C		F	D			F	
Approach Delay		19.9			20.1			62.0			406.8	
Approach LOS		B			C			E			F	
90th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.5		15.0	60.5	60.5		15.0			15.0	15.0	
10th %ile Term Code	Gap		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	112	114	0		103		158	264			~483	
Queue Length 95th (ft)	161	165	18		141		m#240	m359			#612	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	425	1130	1349		1321		412	530			449	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	0.68	0.31	0.35		0.32		0.95	0.72			1.82	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	23%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

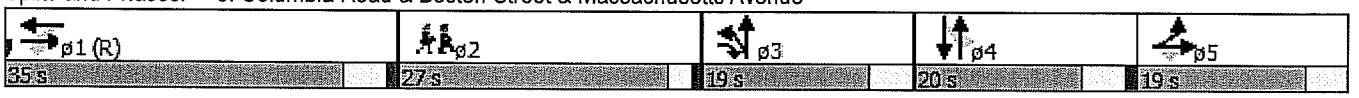
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.82
Intersection Signal Delay: 131.6 Intersection LOS: F
Intersection Capacity Utilization 88.4% ICU Level of Service E
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	408	35	256	373	77	48	180	298	138	198	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.974				0.850		0.969	
Flt Protected	0.950			0.950				0.990		0.950		
Satd. Flow (prot)	1641	3424	0	1641	3784	0	0	1743	1553	1736	1760	0
Flt Permitted	0.950			0.950				0.469		0.381		
Satd. Flow (perm)	1641	3424	0	1641	3784	0	0	826	1553	696	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			20				317		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	4%	6%	10%	6%	2%	4%	9%	4%	4%	5%	3%
Adj. Flow (vph)	24	434	37	272	397	82	51	191	317	147	211	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	471	0	272	479	0	0	242	317	147	265	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	34.0		22.0	41.0		29.0	29.0	22.0	29.0	29.0	
Total Split (%)	12.5%	28.3%		18.3%	34.2%		24.2%	24.2%	18.3%	24.2%	24.2%	
Maximum Green (s)	9.0	28.0		16.0	35.0		22.0	22.0	16.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.1	63.0		16.0	76.5			22.0	85.0	22.0	22.0	
Actuated g/C Ratio	0.07	0.52		0.13	0.64			0.18	0.71	0.18	0.18	
v/c Ratio	0.22	0.26		1.25	0.20			1.60	0.27	1.16	0.80	
Control Delay	42.5	18.7		186.7	9.7			333.0	1.2	172.4	64.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	42.5	18.7		186.7	9.7			333.0	1.2	172.4	64.4	
LOS	D	B		F	A			F	A	F	E	
Approach Delay		19.9			73.8			144.8			103.0	
Approach LOS		B			E			F			F	
90th %ile Green (s)	8.6	63.0		16.0	70.4		22.0	22.0	16.0	22.0	22.0	
90th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
70th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
30th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
10th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
Queue Length 50th (ft)	13	140		~262	82			~268	0	~134	192	
Queue Length 95th (ft)	m19	m128		#435	111			#432	24	#268	#327	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	123	1800		218	2419			151	1192	127	330	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.20	0.26		1.25	0.20			1.60	0.27	1.16	0.80	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	29%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

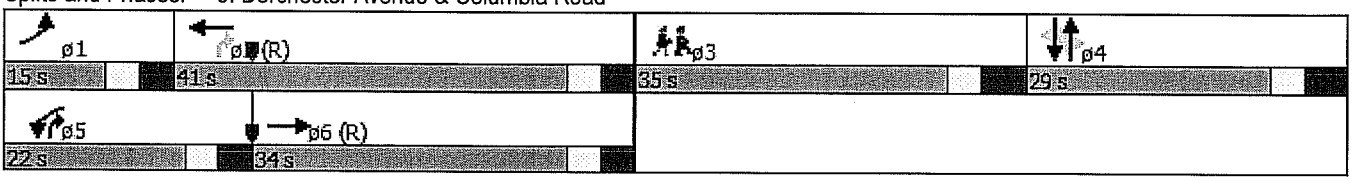
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.60
Intersection Signal Delay: 85.1 Intersection LOS: F
Intersection Capacity Utilization 73.9% ICU Level of Service D
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	37	7	17	396	417	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	9	0	5	0	4
Mvmt Flow	38	7	17	404	426	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	903	464	502	0	-	0
Stage 1	464	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Critical Hdwy	6.43	6.29	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.381	2.2	-	-	-
Pot Cap-1 Maneuver	307	584	1073	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	301	584	1073	-	-	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	631	-	-	-	-	-
Stage 2	635	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1073	-	326	-	-
HCM Lane V/C Ratio	0.016	-	0.138	-	-
HCM Control Delay (s)	8.4	0	17.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	0	18	0	0	0	7	370	20	49	476	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	0	8	0	0	0	14	7	4	3	5	20
Mvmt Flow	11	0	20	0	0	0	8	402	22	53	517	15

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1060	1071	525	533	0	0	424	0	0
Stage 1	632	632	-	-	-	-	-	-	-
Stage 2	428	439	-	-	-	-	-	-	-
Critical Hdwy	6.56	6.5	6.28	4.24	-	-	4.13	-	-
Critical Hdwy Stg 1	5.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.644	4	3.372	2.326	-	-	2.227	-	-
Pot Cap-1 Maneuver	233	223	541	977	-	-	1130	-	-
Stage 1	504	477	-	-	-	-	-	-	-
Stage 2	629	582	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	215	0	541	977	-	-	1130	-	-
Mov Cap-2 Maneuver	215	0	-	-	-	-	-	-	-
Stage 1	470	0	-	-	-	-	-	-	-
Stage 2	622	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	0.2	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	977	-	-	351	1130	-	-
HCM Lane V/C Ratio	0.008	-	-	0.087	0.047	-	-
HCM Control Delay (s)	8.7	0	-	16.2	8.3	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	109	24	214	0	0	0	0	369	8	7	368	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865						0.997				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1629	0	0	0	0	0	1789	0	0	1844	0
Flt Permitted	0.950										0.994	
Satd. Flow (perm)	1770	1629	0	0	0	0	0	1789	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		223						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Adj. Flow (vph)	114	25	223	0	0	0	0	384	8	7	383	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	248	0	0	0	0	0	392	0	0	390	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.1	9.1						45.4			45.4	
Actuated g/C Ratio	0.14	0.14						0.70			0.70	
v/c Ratio	0.46	0.59						0.31			0.30	
Control Delay	31.5	11.8						4.6			4.5	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	31.5	11.8						4.6			4.5	
LOS	C	B						A			A	
Approach Delay		18.0						4.6			4.5	
Approach LOS		B						A			A	
90th %ile Green (s)	11.6	11.6						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	9.7	9.7						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.4	8.4						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						46.6		46.6	46.6	
10th %ile Term Code	Min	Min						Dwell		Dwell	Dwell	
Queue Length 50th (ft)	41	9						43			43	
Queue Length 95th (ft)	85	65						90			89	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	686	768						1258			1290	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.17	0.32						0.31			0.30	

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.5
Natural Cycle: 60

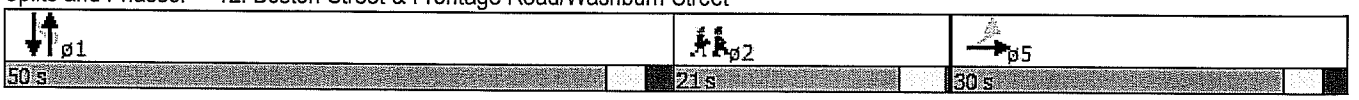
Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 8.8
Intersection Capacity Utilization 47.8%
Analysis Period (min) 15
90th %ile Actuated Cycle: 66.6
70th %ile Actuated Cycle: 64.7
50th %ile Actuated Cycle: 63.4
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 64.6

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	70	155	185	38	9	13	34	205	18	4	3	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.970					0.988				
Flt Protected		0.950						0.991				
Satd. Flow (prot)	0	1787	1773	0	0	0	0	3375	0	0	0	0
Flt Permitted		0.394						0.841				
Satd. Flow (perm)	0	741	1773	0	0	0	0	2864	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			1					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	4%	3%	7%	9%	3%	5%	0%	14%	20%	6%
Adj. Flow (vph)	71	158	189	39	9	13	35	209	18	4	3	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	229	237	0	0	0	0	279	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	100	71	19	10	29	156	103	63	147	118	103	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.952					0.931					0.986	
Flt Protected	0.984					0.995					0.968	
Satd. Flow (prot)	3205	0	0	0	0	2998	0	0	0	0	3261	0
Flt Permitted	0.673					0.871					0.968	
Satd. Flow (perm)	2192	0	0	0	0	2625	0	0	0	0	3261	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	5					16					1	
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	10%	3%	33%	13%	6%	8%	27%	9%	3%	5%	3%
Adj. Flow (vph)	102	72	19	10	30	159	105	64	150	120	105	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	285	0	0	0	0	368	0	0	0	0	415	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	4	4	53	156	153	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.932		
Flt Protected				0.993		
Satd. Flow (prot)	0	0	0	3190	0	0
Flt Permitted				0.993		
Satd. Flow (perm)	0	0	0	3190	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				4		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	20%	4%	5%	5%	0%
Adj. Flow (vph)	4	4	54	159	156	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	396	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		30.9	34.9					17.9				
Actuated g/C Ratio		0.21	0.23					0.12				
v/c Ratio		1.00	0.57					0.82				
Control Delay		113.0	56.8					83.2				
Queue Delay		0.0	0.0					0.0				
Total Delay		113.0	56.8					83.2				
LOS		F	E					F				
Approach Delay			84.4					83.2				
Approach LOS			F					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			39.4	39.4
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			41.8	41.8
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			17.8	17.8	17.8			46.8	46.8
30th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			14.6	14.6	14.6			56.7	56.7
10th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
Queue Length 50th (ft)		197	204					140				
Queue Length 95th (ft)		#296	298					#203				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		229	413					363				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.00	0.57					0.77				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	44.1					44.1					24.2	
Actuated g/C Ratio	0.29					0.29					0.16	
v/c Ratio	0.44					0.47					0.98dl	
Control Delay	46.5					45.3					71.1	
Queue Delay	0.0					0.0					0.0	
Total Delay	46.5					45.3					71.1	
LOS	D					D					E	
Approach Delay	46.5					45.3					71.1	
Approach LOS	D					D					E	
90th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	39.4			39.4	39.4	39.4			26.6	26.6	26.6	
70th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
50th %ile Green (s)	41.8			41.8	41.8	41.8			24.2	24.2	24.2	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	46.8			46.8	46.8	46.8			21.9	21.9	21.9	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	56.7			56.7	56.7	56.7			18.5	18.5	18.5	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	120					152					207	
Queue Length 95th (ft)	178					218					257	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	648					784					653	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.44					0.47					0.64	

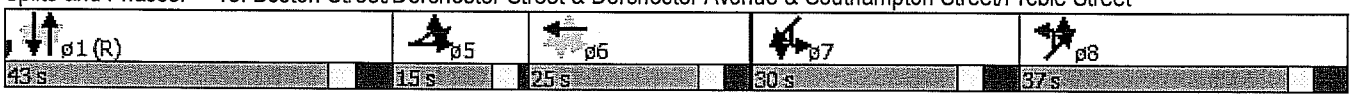
Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				21.7		
Actuated g/C Ratio				0.14		
v/c Ratio				0.85		
Control Delay				79.3		
Queue Delay				0.0		
Total Delay				79.3		
LOS				E		
Approach Delay				79.3		
Approach LOS				E		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		23.0	23.0	23.0		
50th %ile Term Code		Max	Max	Max		
30th %ile Green (s)		21.5	21.5	21.5		
30th %ile Term Code		Gap	Gap	Gap		
10th %ile Green (s)		18.2	18.2	18.2		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				197		
Queue Length 95th (ft)				#268		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				492		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.80		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 69.4
Intersection LOS: E
Intersection Capacity Utilization 95.4%
ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	479	0	0	531	254	222	18	79	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.998					0.950	0.959				
Satd. Flow (prot)	1504	1939	0	0	3438	1711	1796	1653	1759	0	0	1808
Flt Permitted	0.950	0.998					0.950	0.959				
Satd. Flow (perm)	1504	1939	0	0	3438	1711	1796	1653	1759	0	0	1808
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						100			91			193
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	14%	5%	0%	0%	5%	7%	5%	3%	1%	0%	0%	3%
Adj. Flow (vph)	175	499	0	0	553	265	231	19	82	0	0	15
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	157	517	0	0	553	265	125	125	82	0	0	15
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

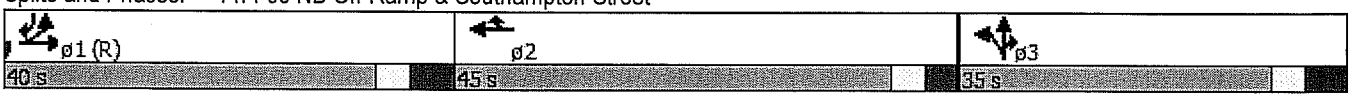
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	40.0	40.0			45.0	45.0	35.0	35.0	35.0			40.0
Total Split (%)	33.3%	33.3%			37.5%	37.5%	29.2%	29.2%	29.2%			33.3%
Maximum Green (s)	33.0	33.0			39.0	39.0	28.0	28.0	28.0			33.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	47.5	47.5			39.0	39.0	13.5	13.5	13.5			47.5
Actuated g/C Ratio	0.40	0.40			0.32	0.32	0.11	0.11	0.11			0.40
v/c Ratio	0.26	0.67			0.50	0.43	0.62	0.67	0.29			0.02
Control Delay	27.2	36.3			34.4	21.6	63.2	68.0	10.4			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	27.2	36.3			34.4	21.6	63.2	68.0	10.4			0.1
LOS	C	D			C	C	E	E	B			A
Approach Delay		34.2			30.3			52.0				
Approach LOS		C			C			D				
90th %ile Green (s)	41.8	41.8			39.0	39.0	19.2	19.2	19.2			41.8
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
70th %ile Green (s)	45.2	45.2			39.0	39.0	15.8	15.8	15.8			45.2
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	47.5	47.5			39.0	39.0	13.5	13.5	13.5			47.5
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	49.8	49.8			39.0	39.0	11.2	11.2	11.2			49.8
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	53.0	53.0			39.0	39.0	8.0	8.0	8.0			53.0
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Min	Min	Min			Coord
Queue Length 50th (ft)	85	342			181	97	98	98	0			0
Queue Length 95th (ft)	152	515			236	175	158	160	39			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	594	766			1117	623	419	385	480			831
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.26	0.67			0.50	0.43	0.30	0.32	0.17			0.02

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 35.4
Intersection LOS: D
Intersection Capacity Utilization 64.3%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	79	0	0	180	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	.0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	4	6
Mvmt Flow	0	88	0	0	200	123

Major/Minor	Minor2		Major2	
Conflicting Flow All	200	200	-	0
Stage 1	200	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.21	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-
Pot Cap-1 Maneuver	763	843	-	-
Stage 1	806	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	763	843	-	-
Mov Cap-2 Maneuver	763	-	-	-
Stage 1	806	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	9.8	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	843	-	-
HCM Lane V/C Ratio	0.104	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	100	0	0	792	0	0	504
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3471	0	0	2787
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3471	0	0	2787
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	4%	0%	0%	2%
Adj. Flow (vph)	0	106	0	0	843	0	0	536
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	106	0	0	843	0	0	536
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

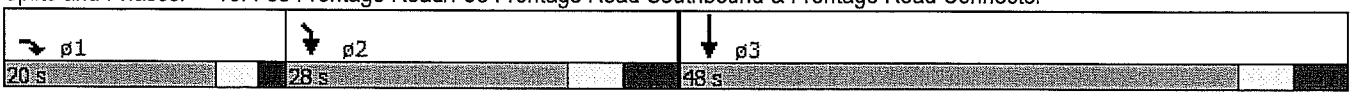
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.09			0.47			0.23
v/c Ratio		0.37			0.52			0.83
Control Delay		6.8			18.5			44.9
Queue Delay		0.0			0.0			0.0
Total Delay		6.8			18.5			44.9
LOS		A			B			D
Approach Delay					18.5			
Approach LOS					B			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			175			165
Queue Length 95th (ft)		24			231			#259
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		405			1613			647
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.26			0.52			0.83

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 86.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 27.2 Intersection LOS: C

Intersection Capacity Utilization 63.7%
ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 76
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: I-93 Frontage Road/I-93 Frontage Road Southbound & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Lane Configurations												
Volume (vph)	468	444	182	19	255	493	90	0	179	8	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	16	12	12	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	
Frt	0.914							0.850				
Flt Protected						0.982	0.950					
Satd. Flow (prot)	3195	0	0	0	0	3393	1752	1527	0	0	1900	
Flt Permitted						0.514	0.757					
Satd. Flow (perm)	3195	0	0	0	0	1776	1396	1527	0	0	1900	
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)	25							158				
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	494					738		733			242	
Travel Time (s)	11.2					16.8		16.7			5.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	5%	2%	2%	11%	3%	5%	3%	0%	6%	0%	0%	
Adj. Flow (vph)	478	453	186	19	260	503	92	0	183	8	1	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1117	0	0	0	0	782	92	191	0	0	1	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Left	Right	Right	Left	
Median Width(ft)	0					0		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	0.85	1.00	1.00	
Turning Speed (mph)		9	9	15	15		15		9	9		
Number of Detectors	2			1	1	2	1	2			2	
Detector Template	Thru			Left	Left	Thru	Left	Thru			Thru	
Leading Detector (ft)	100			20	20	100	20	100			100	
Trailing Detector (ft)	0			0	0	0	0	0			0	
Detector 1 Position(ft)	0			0	0	0	0	0			0	
Detector 1 Size(ft)	6			20	20	6	20	6			6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)	94					94		94			94	
Detector 2 Size(ft)	6					6		6			6	
Detector 2 Type	Cl+Ex					Cl+Ex		Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0		0.0			0.0	
Turn Type	NA			pm+pt	pm+pt	NA	Perm	NA			NA	
Protected Phases	1			4	4	1 4		3			3	2
Permitted Phases				1 4	1 4		3					
Detector Phase	1			4	4	1 4	3	3			3	
Switch Phase												

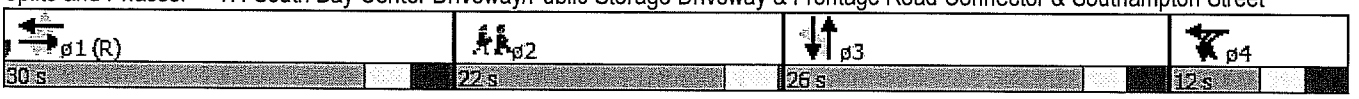
Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Minimum Initial (s)	10.0			5.0	5.0		5.0	5.0			5.0	4.0
Minimum Split (s)	16.0			11.0	11.0		11.0	11.0			11.0	22.0
Total Split (s)	30.0			12.0	12.0		26.0	26.0			26.0	22.0
Total Split (%)	33.3%			13.3%	13.3%		28.9%	28.9%			28.9%	24%
Maximum Green (s)	24.0			6.0	6.0		20.0	20.0			20.0	18.0
Yellow Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	3.5
All-Red Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	0.5
Lost Time Adjust (s)	0.0						0.0	0.0			0.0	
Total Lost Time (s)	6.0						6.0	6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0		2.0	2.0			2.0	2.0
Recall Mode	C-Max			None	None		None	None			None	None
Walk Time (s)												5.0
Flash Dont Walk (s)												13.0
Pedestrian Calls (#/hr)												0
Act Effct Green (s)	55.7					61.7	10.3	10.3			10.3	
Actuated g/C Ratio	0.62					0.69	0.11	0.11			0.11	
v/c Ratio	0.56					0.59	0.58	0.61			0.00	
Control Delay	11.7					7.4	51.2	17.9			32.0	
Queue Delay	0.0					0.0	0.0	0.0			0.0	
Total Delay	11.7					7.4	51.2	17.9			32.0	
LOS	B					A	D	B			C	
Approach Delay	11.7					7.4		28.7			32.0	
Approach LOS	B					A		C			C	
90th %ile Green (s)	50.7			6.0	6.0		15.3	15.3			15.3	0.0
90th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
70th %ile Green (s)	53.7			6.0	6.0		12.3	12.3			12.3	0.0
70th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
50th %ile Green (s)	55.7			6.0	6.0		10.3	10.3			10.3	0.0
50th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
30th %ile Green (s)	57.7			6.0	6.0		8.3	8.3			8.3	0.0
30th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
10th %ile Green (s)	60.7			6.0	6.0		5.3	5.3			5.3	0.0
10th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
Queue Length 50th (ft)	173					60	50	17			1	
Queue Length 95th (ft)	267					105	94	78			5	
Internal Link Dist (ft)	414					658		653			162	
Turn Bay Length (ft)												
Base Capacity (vph)	1986					1325	310	462			422	
Starvation Cap Reductn	0					0	0	0			0	
Spillback Cap Reductn	0					0	0	0			0	
Storage Cap Reductn	0					0	0	0			0	
Reduced v/c Ratio	0.56					0.59	0.30	0.41			0.00	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 12.4
Intersection LOS: B
Intersection Capacity Utilization 81.3%
ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	75	0	0	0	67	678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.996
Satd. Flow (prot)	3433	0	0	0	0	3525
Flt Permitted	0.950					0.996
Satd. Flow (perm)	3433	0	0	0	0	3525
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	0	0	0	73	737
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	0	0	0	810
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0
Minimum Split (s)	15.0				17.0	17.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Split (s)	35.0				55.0	55.0
Total Split (%)	38.9%				61.1%	61.1%
Maximum Green (s)	30.0				50.0	50.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.22					0.28
Control Delay	58.1					2.8
Queue Delay	0.0					0.0
Total Delay	58.1					2.8
LOS	E					A
Approach Delay	58.1					2.8
Approach LOS	E					A
90th %ile Green (s)	10.0				70.0	70.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	24					54
Queue Length 95th (ft)	48					71
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	1144					2898
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.07					0.28

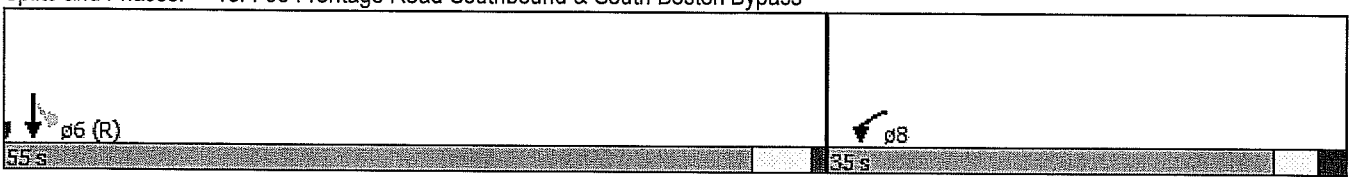
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.28
Intersection Signal Delay: 7.9 Intersection LOS: A

Intersection Capacity Utilization 37.4%
Analysis Period (min) 15

ICU Level of Service A

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	25	0	0	55	113	20	1212	161	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.899			0.983				
Flt Protected		0.969						0.999				
Satd. Flow (prot)	0	3429	0	0	3182	0	0	4994	0	0	0	0
Flt Permitted		0.709						0.999				
Satd. Flow (perm)	0	2509	0	0	3182	0	0	4994	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					58			46				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	27	0	0	60	123	22	1317	175	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	73	0	0	183	0	0	1514	0	0	0	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)		0			0			0			0	
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
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.13			0.24			0.48				
Control Delay		35.4			20.4			9.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		35.4			20.4			9.5				
LOS		D			C			A				
Approach Delay		35.4			20.4			9.5				
Approach LOS		D			C			A				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		19			30			149				
Queue Length 95th (ft)		40			58			181				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		613			821			3124				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.12			0.22			0.48				

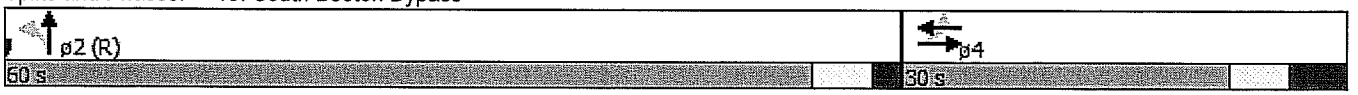
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 11.7 Intersection LOS: B

Intersection Capacity Utilization 75.0%
Analysis Period (min) 15

ICU Level of Service D

Splits and Phases: 19: South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	912	302	207	929	491	324	600	385	409	497	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.995	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3426	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3426	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			97			48			393		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	3%	3%	11%	3%	3%	2%	3%	8%	4%	5%	0%
Adj. Flow (vph)	0	931	308	211	948	501	331	612	393	417	507	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	931	308	211	948	501	331	612	393	417	523	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		35.0		20.0	55.0		20.0	35.0		20.0	35.0	
Total Split (%)		31.8%		18.2%	50.0%		18.2%	31.8%		18.2%	31.8%	
Maximum Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		29.0	48.3	11.4	46.4	66.4	13.3	31.6	110.0	14.0	32.3	
Actuated g/C Ratio		0.26	0.44	0.10	0.42	0.60	0.12	0.29	1.00	0.13	0.29	
v/c Ratio		1.01	0.42	0.65	0.64	0.52	0.80	0.61	0.26	0.97	0.52	
Control Delay		72.3	15.8	56.5	27.3	13.2	62.3	37.4	0.4	86.0	35.1	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		72.3	15.8	56.5	27.3	13.2	62.3	37.4	0.4	86.0	35.1	
LOS		E	B	E	C	B	E	D	A	F	D	
Approach Delay		58.3			26.8			32.7			57.7	
Approach LOS		E			C			C			E	
90th %ile Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
90th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
70th %ile Green (s)		29.0		13.2	48.2		14.0	29.8		14.0	29.8	
70th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		29.0		11.7	46.7		14.0	31.3		14.0	31.3	
50th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		29.0		10.2	45.2		13.4	32.8		14.0	33.4	
30th %ile Term Code		Max		Gap	Hold		Gap	Coord		Max	Coord	
10th %ile Green (s)		29.0		8.0	43.0		10.9	35.0		14.0	38.1	
10th %ile Term Code		Max		Min	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		~351	96	74	272	169	118	196	0	153	162	
Queue Length 95th (ft)		#491	167	111	328	241	#177	266	0	#253	224	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		924	752	401	1561	935	436	1006	1495	428	1008	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.01	0.41	0.53	0.61	0.54	0.76	0.61	0.26	0.97	0.52	

Intersection Summary

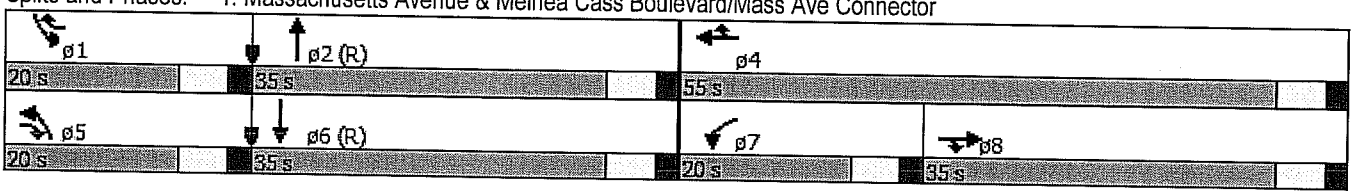
Area Type: Other

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 100 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 41.5
Intersection LOS: D
Intersection Capacity Utilization 80.1%
ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	0	120	0	0	0	93	303	0	0	454	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922										0.850
Flt Protected		0.979					0.950					
Satd. Flow (prot)	0	1670	0	0	0	0	1752	1845	0	0	1827	1583
Flt Permitted		0.979					0.426					
Satd. Flow (perm)	0	1670	0	0	0	0	786	1845	0	0	1827	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	1%	0%	0%	0%	3%	3%	0%	0%	4%	2%
Adj. Flow (vph)	90	0	125	0	0	0	97	316	0	0	473	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	215	0	0	0	0	97	316	0	0	473	50
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA			NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	28.0	28.0					12.0			29.0	29.0	29.0
Total Split (%)	31.1%	31.1%					13.3%			32.2%	32.2%	32.2%
Maximum Green (s)	24.0	24.0					8.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		12.8					65.2	69.2			57.2	57.2
Actuated g/C Ratio		0.14					0.72	0.77			0.64	0.64
v/c Ratio		0.65					0.15	0.22			0.41	0.05
Control Delay		27.3					2.6	2.5			9.9	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		27.3					2.6	2.5			9.9	0.1
LOS		C					A	A			A	A
Approach Delay		27.3						2.5			9.0	
Approach LOS		C						A			A	
90th %ile Green (s)	18.2	18.2					8.0			51.8	51.8	51.8
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	14.2	14.2					8.0			55.8	55.8	55.8
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	11.4	11.4					8.0			58.6	58.6	58.6
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		57					6	21			113	0
Queue Length 95th (ft)		121					17	43			215	1
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		525					655	1419			1162	1046
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.41					0.15	0.22			0.41	0.05

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.65
Intersection Signal Delay: 10.1
Intersection Capacity Utilization 62.7%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service B

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	61	238	44	52	27	165	401	308	28	558	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.881			0.949				0.850		0.989	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1770	1670	0	1752	1882	0	1947	2029	1463	0	3684	0
Flt Permitted	0.950			0.950			0.356				0.920	
Satd. Flow (perm)	1770	1670	0	1752	1882	0	729	2029	1463	0	3396	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		200			26				342		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	0%	3%	3%	10%	2%	3%	3%	12%	3%	0%
Adj. Flow (vph)	28	68	264	49	58	30	183	446	342	31	620	52
Shared Lane Traffic (%)												
Lane Group Flow (vph)	28	332	0	49	88	0	183	446	342	0	703	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		23.0	23.0		38.0	38.0	23.0	38.0	38.0	
Total Split (%)	27.8%	27.8%		25.6%	25.6%		42.2%	42.2%	25.6%	42.2%	42.2%	
Maximum Green (s)	20.0	20.0		18.0	18.0		32.0	32.0	18.0	32.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	13.0	13.0		9.2	9.2		51.8	51.8	67.0		51.8	
Actuated g/C Ratio	0.14	0.14		0.10	0.10		0.58	0.58	0.74		0.58	
v/c Ratio	0.11	0.81		0.28	0.41		0.44	0.38	0.29		0.36	
Control Delay	31.6	29.6		40.8	33.2		17.2	13.0	1.3		8.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	31.6	29.6		40.8	33.2		17.2	13.0	1.3		8.5	
LOS	C	C		D	C		B	B	A		A	
Approach Delay		29.8			36.0			9.7			8.5	
Approach LOS		C			D			A			A	
90th %ile Green (s)	20.0	20.0		12.0	12.0		42.0	42.0	12.0	42.0	42.0	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	16.1	16.1		9.8	9.8		48.1	48.1	9.8	48.1	48.1	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	12.4	12.4		8.0	8.0		53.6	53.6	8.0	53.6	53.6	
50th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
30th %ile Green (s)	8.7	8.7		8.0	8.0		57.3	57.3	8.0	57.3	57.3	
30th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		58.0	58.0	8.0	58.0	58.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	14	72		27	34		52	121	0		66	
Queue Length 95th (ft)	35	156		59	76		142	248	26		97	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	393	526		350	397		419	1167	1175		1958	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.07	0.63		0.14	0.22		0.44	0.38	0.29		0.36	

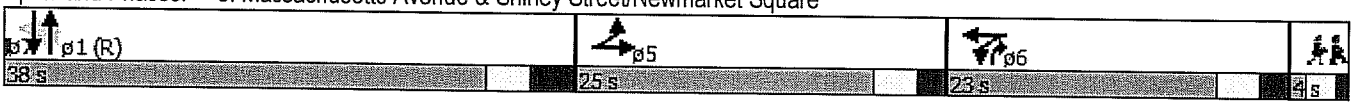
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 14.3
Intersection LOS: B
Intersection Capacity Utilization 81.7%
ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	7.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	322	552	76	444	396
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	5	1	3
Mvmt Flow	15	350	600	83	483	430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1821	341	0	0	683	0
Stage 1	641	-	-	-	-	-
Stage 2	1180	-	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	70	655	-	-	913	-
Stage 1	492	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	21	655	-	-	913	-
Mov Cap-2 Maneuver	66	-	-	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	79	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19	0	7.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	66	655	913	-
HCM Lane V/C Ratio	-	-	0.231	0.534	0.529	-
HCM Control Delay (s)	-	-	75.2	16.6	13.3	1.4
HCM Lane LOS	-	-	F	C	B	A
HCM 95th %tile Q(veh)	-	-	0.8	3.2	3.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	0	343	2	208	2	417	457	88	319	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt					0.851			0.922			0.999	
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	3429	0	1770	1578	0	1203	3700	0	1787	1861	0
Flt Permitted		0.833		0.950			0.483			0.211		
Satd. Flow (perm)	0	3007	0	1770	1578	0	612	3700	0	397	1861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					219			210				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	50%	2%	50%	3%	1%	1%	2%	0%
Adj. Flow (vph)	3	0	0	361	2	219	2	439	481	93	336	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	361	221	0	2	920	0	93	339	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		28.0		16.0	20.5		26.7	26.7		26.7	26.7	
Actuated g/C Ratio		0.47		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		0.01		0.75	0.32		0.01	0.51		0.52	0.40	
Control Delay		9.7		35.5	3.0		17.5	12.9		32.5	17.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		9.7		35.5	3.0		17.5	12.9		32.5	17.1	
LOS		A		D	A		B	B		C	B	
Approach Delay		9.7			23.1			12.9			20.4	
Approach LOS		A			C			B			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		0		91	0		0	61		16	55	
Queue Length 95th (ft)		3		#453	26		6	292		#151	282	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		852		481	1236		277	1790		179	842	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.00		0.75	0.18		0.01	0.51		0.52	0.40	

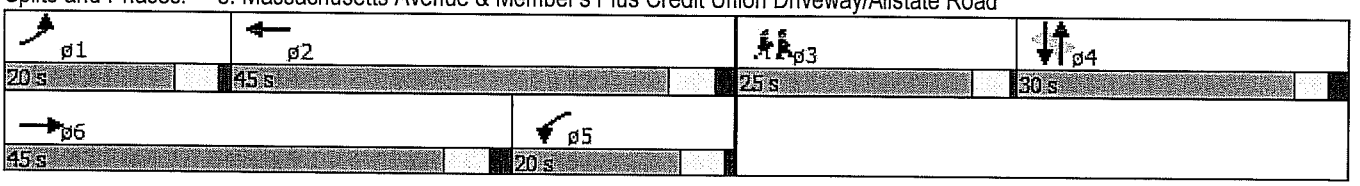
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 59
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 17.6 Intersection LOS: B
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 50
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	302	161	0	0	312	0	144	5
Peak Hour Factor	0.92	0.96	0.96	0.92	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	1	3	2	0	1	2	1	0
Mvmt Flow	0	315	168	0	0	325	0	150	5
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.1	12.1	10.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	97%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	3%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	302	161	312
LT Vol	144	0	0	0
Through Vol	0	302	0	312
RT Vol	5	0	161	0
Lane Flow Rate	155	315	168	325
Geometry Grp	2	7	7	5
Degree of Util (X)	0.251	0.46	0.214	0.45
Departure Headway (Hd)	5.812	5.268	4.597	4.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	680	773	718
Service Time	3.907	3.039	2.367	3.053
HCM Lane V/C Ratio	0.253	0.463	0.217	0.453
HCM Control Delay	10.9	12.5	8.6	12.1
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1	2.4	0.8	2.3

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	113	763	14	48	610
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	116	787	14	49	629

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1207	401	0	0	801	0
Stage 1	794	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	176	599	-	-	818	-
Stage 1	406	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	160	599	-	-	818	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	406	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.9	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	526	818	-
HCM Lane V/C Ratio	-	-	0.233	0.06	-
HCM Control Delay (s)	-	-	13.9	9.7	0.4
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	394	286	414	90	259	21	394	377	105	15	317	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.992			0.967			0.931	
Flt Protected	0.950				0.988		0.950				0.999	
Satd. Flow (prot)	3467	1845	1568	0	3417	0	3433	1774	0	0	3271	0
Flt Permitted	0.950				0.783		0.950				0.749	
Satd. Flow (perm)	3467	1845	1568	0	2708	0	3433	1774	0	0	2453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436		5			14			176	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	3%	3%	3%	4%	0%	2%	4%	2%	7%	3%	2%
Adj. Flow (vph)	415	301	436	95	273	22	415	397	111	16	334	298
Shared Lane Traffic (%)												
Lane Group Flow (vph)	415	301	436	0	390	0	415	508	0	0	648	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		16.0	24.0	24.0		16.0			18.0	18.0	
Total Split (%)	15.0%		16.0%	24.0%	24.0%		16.0%			18.0%	18.0%	
Maximum Green (s)	11.0		12.0	19.0	19.0		12.0			13.0	13.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	78.0		46.0		12.0	30.0			13.0	
Actuated g/C Ratio	0.11	0.61	0.78		0.46		0.12	0.30			0.13	
v/c Ratio	1.09	0.27	0.33		0.31		1.01	0.94			1.37	
Control Delay	115.0	9.9	1.0		17.7		85.9	55.7			207.2	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	115.0	9.9	1.0		17.7		85.9	55.7			207.2	
LOS	F	A	A		B		F	E			F	
Approach Delay		44.4			17.7			69.3			207.2	
Approach LOS		D			B			E			F	
90th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~154	82	0		78		~116	313			~235	
Queue Length 95th (ft)	#250	126	17		113		m#214	m#489			#351	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	381	1125	1318		1248		411	542			472	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.09	0.27	0.33		0.31		1.01	0.94			1.37	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

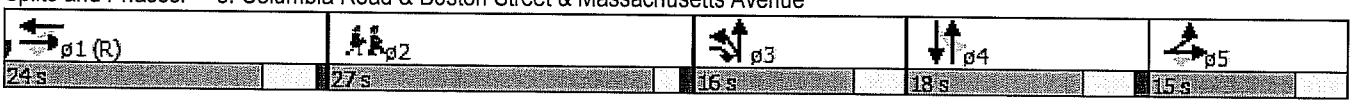
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.37
Intersection Signal Delay: 82.3
Intersection LOS: F
Intersection Capacity Utilization 87.9%
ICU Level of Service E
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	454	43	218	490	130	60	190	355	111	140	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.969				0.850		0.963	
Flt Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1752	3417	0	1703	3895	0	0	1813	1583	1752	1726	0
Flt Permitted	0.950			0.950				0.676		0.314		
Satd. Flow (perm)	1752	3417	0	1703	3895	0	0	1241	1583	579	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			30				378		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	4%	7%	6%	2%	1%	2%	4%	2%	3%	6%	6%
Adj. Flow (vph)	53	483	46	232	521	138	64	202	378	118	149	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	529	0	232	659	0	0	266	378	118	198	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	21.0		21.0	27.0		23.0	23.0	21.0	23.0	23.0	
Total Split (%)	15.0%	21.0%		21.0%	27.0%		23.0%	23.0%	21.0%	23.0%	23.0%	
Maximum Green (s)	9.0	15.0		15.0	21.0		16.0	16.0	15.0	16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.3	50.2		14.8	59.5			16.0	71.0	16.0	16.0	
Actuated g/C Ratio	0.08	0.50		0.15	0.60			0.16	0.71	0.16	0.16	
v/c Ratio	0.36	0.31		0.92	0.28			1.34	0.31	1.28	0.69	
Control Delay	48.3	14.8		83.6	10.4			219.4	1.2	224.5	50.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	48.3	14.8		83.6	10.4			219.4	1.2	224.5	50.5	
LOS	D	B		F	B			F	A	F	D	
Approach Delay		17.8			29.5			91.3			115.5	
Approach LOS		B			C			F			F	
90th %ile Green (s)	9.0	50.0		15.0	56.0		16.0	16.0	15.0	16.0	16.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.7	50.0		15.0	56.3		16.0	16.0	15.0	16.0	16.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	51.1		13.9	71.0		16.0	16.0	13.9	16.0	16.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	29	113		148	101			~222	0	~96	112	
Queue Length 95th (ft)	m46	m123		#289	138			#380	24	#209	#204	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	157	1719		255	2328			198	1233	92	287	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.34	0.31		0.91	0.28			1.34	0.31	1.28	0.69	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	35%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

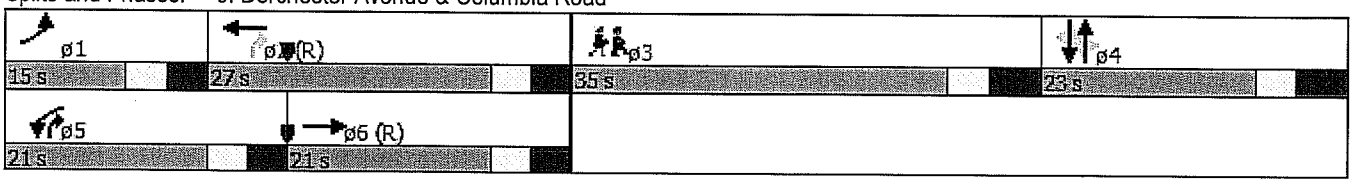
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 31 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 54.2 Intersection LOS: D
Intersection Capacity Utilization 71.1% ICU Level of Service C
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	19	8	13	344	369	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	8	13	351	377	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	782	404	432	0	-	0
Stage 1	404	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	363	647	1128	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	358	647	1128	-	-	-
Mov Cap-2 Maneuver	358	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.3	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1128	-	413	-	-
HCM Lane V/C Ratio	0.012	-	0.067	-	-
HCM Control Delay (s)	8.2	0	14.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	1	16	0	0	0	36	309	27	37	413	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	7	0	0	0	0	0	0	3	2	0	4	1
Mvmt Flow	6	1	17	0	0	0	38	322	28	39	430	41

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	939	953	451	471	0	0	350	0	0
Stage 1	528	528	-	-	-	-	-	-	-
Stage 2	411	425	-	-	-	-	-	-	-
Critical Hdwy	6.47	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.47	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.47	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	287	261	613	1101	-	-	1220	-	-
Stage 1	582	531	-	-	-	-	-	-	-
Stage 2	659	590	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	263	0	613	1101	-	-	1220	-	-
Mov Cap-2 Maneuver	263	0	-	-	-	-	-	-	-
Stage 1	556	0	-	-	-	-	-	-	-
Stage 2	631	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0.8	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1101	-	-	450	1220	-	-
HCM Lane V/C Ratio	0.034	-	-	0.053	0.032	-	-
HCM Control Delay (s)	8.4	0	-	13.4	8	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	9	178	0	0	0	0	265	11	8	176	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.857						0.995				
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1752	1628	0	0	0	0	0	1838	0	0	1843	0
Flt Permitted	0.950										0.987	
Satd. Flow (perm)	1752	1628	0	0	0	0	0	1838	0	0	1823	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		198						3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%
Adj. Flow (vph)	140	10	198	0	0	0	0	294	12	9	196	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	208	0	0	0	0	0	306	0	0	205	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	25.0	25.0						45.0		45.0	45.0	
Total Split (%)	27.5%	27.5%						49.5%		49.5%	49.5%	
Maximum Green (s)	20.0	20.0						40.0		40.0	40.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.6	9.6						40.9			40.9	
Actuated g/C Ratio	0.16	0.16						0.68			0.68	
v/c Ratio	0.51	0.49						0.25			0.17	
Control Delay	29.6	8.9						4.7			4.3	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	29.6	8.9						4.7			4.3	
LOS	C	A						A			A	
Approach Delay		17.2						4.7			4.3	
Approach LOS		B						A			A	
90th %ile Green (s)	12.6	12.6						40.0		40.0	40.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	10.4	10.4						40.0		40.0	40.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	9.0	9.0						40.0		40.0	40.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						40.0		40.0	40.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						44.4		44.4	44.4	
10th %ile Term Code	Min	Min						Dwell		Dwell	Dwell	
Queue Length 50th (ft)	47	3						33			21	
Queue Length 95th (ft)	93	51						73			49	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	579	671						1243			1232	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.24	0.31						0.25			0.17	

Intersection Summary

Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 60.5
Natural Cycle: 60

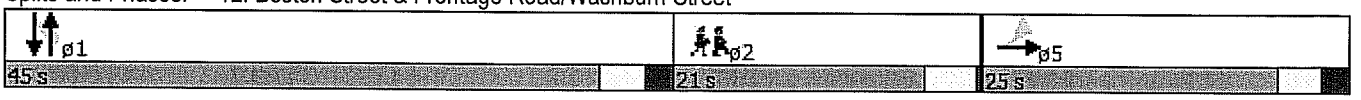
Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 9.7
Intersection Capacity Utilization 36.5%
Analysis Period (min) 15
90th %ile Actuated Cycle: 62.6
70th %ile Actuated Cycle: 60.4
50th %ile Actuated Cycle: 59
30th %ile Actuated Cycle: 58
10th %ile Actuated Cycle: 62.4

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	68	133	151	24	13	5	33	264	11	2	6	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.971					0.994				
Flt Protected		0.950						0.994				
Satd. Flow (prot)	0	1770	1822	0	0	0	0	3086	0	0	0	0
Flt Permitted		0.330						0.877				
Satd. Flow (perm)	0	615	1822	0	0	0	0	2723	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			2									
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	1%	2%	3%	8%	0%	18%	10%	0%	0%	4%
Adj. Flow (vph)	70	137	156	25	13	5	34	272	11	2	6	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	207	194	0	0	0	0	324	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	108	62	25	14	70	58	54	66	142	109	108	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.962					0.931					0.985	
Flt Protected	0.979					0.984					0.970	
Satd. Flow (prot)	3281	0	0	0	0	2581	0	0	0	0	3356	0
Flt Permitted	0.695					0.680					0.970	
Satd. Flow (perm)	2329	0	0	0	0	1784	0	0	0	0	3356	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	5					29					1	
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	4%	4%	25%	72%	9%	9%	15%	4%	2%	3%	0%
Adj. Flow (vph)	111	64	26	14	72	60	56	68	146	112	111	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	358	0	0	0	0	270	0	0	0	0	411	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	4	6	21	85	212	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.899		
Flt Protected				0.996		
Satd. Flow (prot)	0	0	0	3118	0	0
Flt Permitted				0.996		
Satd. Flow (perm)	0	0	0	3118	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				3		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	7%	2%	3%	14%
Adj. Flow (vph)	4	6	22	88	219	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	354	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		32.0	36.0					19.0				
Actuated g/C Ratio		0.21	0.24					0.13				
v/c Ratio		0.96	0.44					0.94				
Control Delay		104.2	51.7					100.0				
Queue Delay		0.0	0.0					0.0				
Total Delay		104.2	51.7					100.0				
LOS		F	D					F				
Approach Delay			78.8					100.0				
Approach LOS			E					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.2	36.2
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			40.2	40.2
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			43.5	43.5
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			47.9	47.9
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			54.5	54.5
10th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
Queue Length 50th (ft)		176	161					167				
Queue Length 95th (ft)		#282	241					#266				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		215	438					344				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		0.96	0.44					0.94				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	44.5					44.5					23.7	
Actuated g/C Ratio	0.30					0.30					0.16	
v/c Ratio	0.52					0.49					0.93dl	
Control Delay	47.9					43.8					70.6	
Queue Delay	0.0					0.0					0.0	
Total Delay	47.9					43.8					70.6	
LOS	D					D					E	
Approach Delay	47.9					43.8					70.6	
Approach LOS	D					D					E	
90th %ile Green (s)	36.2			36.2	36.2	36.2			29.8	29.8	29.8	
90th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
70th %ile Green (s)	40.2			40.2	40.2	40.2			25.8	25.8	25.8	
70th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
50th %ile Green (s)	43.5			43.5	43.5	43.5			23.5	23.5	23.5	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	47.9			47.9	47.9	47.9			21.3	21.3	21.3	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	54.5			54.5	54.5	54.5			18.0	18.0	18.0	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	153					103					205	
Queue Length 95th (ft)	222					163					254	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	693					549					672	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.52					0.49					0.61	

Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				20.9		
Actuated g/C Ratio				0.14		
v/c Ratio				1.07dr		
Control Delay				77.2		
Queue Delay				0.0		
Total Delay				77.2		
LOS				E		
Approach Delay				77.2		
Approach LOS				E		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		22.0	22.0	22.0		
50th %ile Term Code		Gap	Gap	Gap		
30th %ile Green (s)		19.8	19.8	19.8		
30th %ile Term Code		Gap	Gap	Gap		
10th %ile Green (s)		16.5	16.5	16.5		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				176		
Queue Length 95th (ft)				234		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				480		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.74		

Intersection Summary

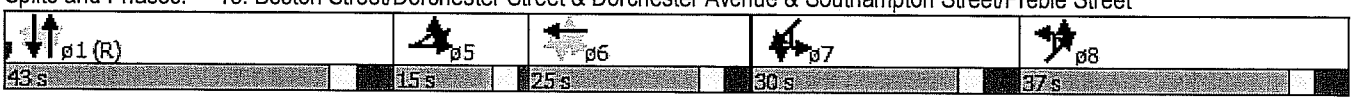
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 70.5
Intersection LOS: E
Intersection Capacity Utilization 93.1%
ICU Level of Service F
Analysis Period (min) 15

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	375	0	0	609	304	339	26	78	0	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.998					0.950	0.959				
Satd. Flow (prot)	1573	1976	0	0	3539	1777	1868	1704	1692	0	0	1863
Flt Permitted	0.950	0.998					0.950	0.959				
Satd. Flow (perm)	1573	1976	0	0	3539	1777	1868	1704	1692	0	0	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						150			136			136
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	3%	0%	0%	2%	3%	1%	5%	5%	0%	0%	0%
Adj. Flow (vph)	220	417	0	0	677	338	377	29	87	0	0	12
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	198	439	0	0	677	338	204	202	87	0	0	12
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

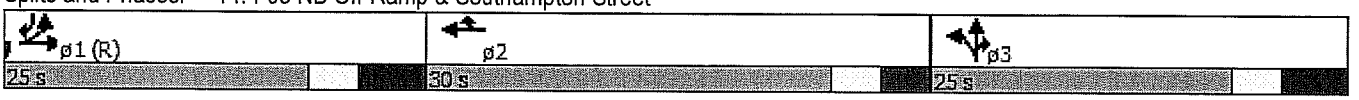
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	25.0	25.0			30.0	30.0	25.0	25.0	25.0			25.0
Total Split (%)	31.3%	31.3%			37.5%	37.5%	31.3%	31.3%	31.3%			31.3%
Maximum Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	22.3	22.3			24.0	24.0	13.7	13.7	13.7			22.3
Actuated g/C Ratio	0.28	0.28			0.30	0.30	0.17	0.17	0.17			0.28
v/c Ratio	0.45	0.80			0.64	0.53	0.64	0.70	0.22			0.02
Control Delay	30.0	41.2			27.5	16.1	39.6	43.5	3.0			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	30.0	41.2			27.5	16.1	39.6	43.5	3.0			0.1
LOS	C	D			C	B	D	D	A			A
Approach Delay		37.7			23.7			34.8				
Approach LOS		D			C			C				
90th %ile Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	19.1	19.1			24.0	24.0	16.9	16.9	16.9			19.1
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	22.2	22.2			24.0	24.0	13.8	13.8	13.8			22.2
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	24.5	24.5			24.0	24.0	11.5	11.5	11.5			24.5
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	27.9	27.9			24.0	24.0	8.1	8.1	8.1			27.9
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	92	237			153	73	101	101	0			0
Queue Length 95th (ft)	m147	m#380			210	153	162	163	14			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	439	551			1061	638	420	383	486			618
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.45	0.80			0.64	0.53	0.49	0.53	0.18			0.02

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Offset: 5 (6%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 30.2 Intersection LOS: C
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	138	0	0	250	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	0	145	0	0	263	264

Major/Minor	Minor2		Major2	
Conflicting Flow All	263	263	-	0
Stage 1	263	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.2	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-
Pot Cap-1 Maneuver	694	781	-	-
Stage 1	747	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	694	781	-	-
Mov Cap-2 Maneuver	694	-	-	-
Stage 1	747	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	10.7	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	781	-	-
HCM Lane V/C Ratio	0.186	-	-
HCM Control Delay (s)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	101	0	0	1192	0	0	232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3505	0	0	2682
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3505	0	0	2682
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	6%
Adj. Flow (vph)	0	106	0	0	1255	0	0	244
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	106	0	0	1255	0	0	244
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.09			0.47			0.23
v/c Ratio		0.37			0.77			0.39
Control Delay		6.8			24.0			31.1
Queue Delay		0.0			0.0			0.0
Total Delay		6.8			24.0			31.1
LOS		A			C			C
Approach Delay					24.0			
Approach LOS					C			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			307			67
Queue Length 95th (ft)		24			395			105
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		405			1629			623
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.26			0.77			0.39

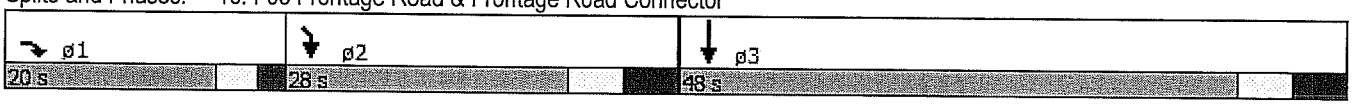
Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 86.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 23.9 Intersection LOS: C

Intersection Capacity Utilization 65.2%
Analysis Period (min) 15
ICU Level of Service C

90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 76

Splits and Phases: 16: I-93 Frontage Road & Frontage Road Connector



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	5	269	232	121	37	459	462	1	188	1	302	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.915								0.850		
Flt Protected							0.975		0.950			
Satd. Flow (prot)	0	3157	0	0	0	0	3443	0	1770	1525	0	0
Flt Permitted		0.947					0.568		0.752			
Satd. Flow (perm)	0	2990	0	0	0	0	2006	0	1401	1525	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		32								5		
Link Speed (mph)		30					30			30		
Link Distance (ft)		494					738			733		
Travel Time (s)		11.2					16.8			16.7		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	6%	5%	1%	8%	2%	2%	0%	2%	0%	5%	17%
Adj. Flow (vph)	5	277	239	125	38	473	476	1	194	1	311	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	646	0	0	0	0	988	0	194	337	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		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	0.85	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Number of Detectors	1	2			1	1	2		1	2		
Detector Template	Left	Thru			Left	Left	Thru		Left	Thru		
Leading Detector (ft)	20	100			20	20	100		20	100		
Trailing Detector (ft)	0	0			0	0	0		0	0		
Detector 1 Position(ft)	0	0			0	0	0		0	0		
Detector 1 Size(ft)	20	6			20	20	6		20	6		
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)		94					94			94		
Detector 2 Size(ft)		6					6			6		
Detector 2 Type		Cl+Ex					Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0					0.0			0.0		
Turn Type	Perm	NA			pm+pt	pm+pt	NA		Perm	NA		
Protected Phases		1			4	4	1 4			3		
Permitted Phases	1				1 4	1 4			3			
Detector Phase	1	1			4	4	1 4		3	3		
Switch Phase												

Lane Group	SBL2	SBT	SBR	ø2
Lane Configurations		↕		
Volume (vph)	2	1	6	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	12	12	12	
Lane Util. Factor	1.00	1.00	1.00	
Frt		0.910		
Flt Protected		0.989		
Satd. Flow (prot)	0	1710	0	
Flt Permitted		0.925		
Satd. Flow (perm)	0	1599	0	
Right Turn on Red			Yes	
Satd. Flow (RTOR)		6		
Link Speed (mph)		30		
Link Distance (ft)		242		
Travel Time (s)		5.5		
Peak Hour Factor	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	0%	0%	
Adj. Flow (vph)	2	1	6	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	9	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		12		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	1.00	1.00	1.00	
Turning Speed (mph)	15		9	
Number of Detectors	1	2		
Detector Template	Left	Thru		
Leading Detector (ft)	20	100		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)		94		
Detector 2 Size(ft)		6		
Detector 2 Type		Cl+Ex		
Detector 2 Channel				
Detector 2 Extend (s)		0.0		
Turn Type	Perm	NA		
Protected Phases		3		2
Permitted Phases	3			
Detector Phase	3	3		
Switch Phase				

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Minimum Initial (s)	10.0	10.0			5.0	5.0			5.0	5.0		
Minimum Split (s)	16.0	16.0			11.0	11.0			11.0	11.0		
Total Split (s)	20.0	20.0			12.0	12.0			26.0	26.0		
Total Split (%)	25.0%	25.0%			15.0%	15.0%			32.5%	32.5%		
Maximum Green (s)	14.0	14.0			6.0	6.0			20.0	20.0		
Yellow Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
All-Red Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
Lost Time Adjust (s)		0.0							0.0	0.0		
Total Lost Time (s)		6.0							6.0	6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0			2.0	2.0			2.0	2.0		
Recall Mode	C-Max	C-Max			None	None			None	None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		36.9					42.9		19.1	19.1		
Actuated g/C Ratio		0.46					0.54		0.24	0.24		
v/c Ratio		0.46					1.16dl		0.58	0.91		
Control Delay		15.6					12.5		34.4	60.6		
Queue Delay		0.0					0.0		0.0	0.0		
Total Delay		15.6					12.5		34.4	60.6		
LOS		B					B		C	E		
Approach Delay		15.6					12.5			51.0		
Approach LOS		B					B			D		
90th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
90th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
70th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
70th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
50th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
50th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
30th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
30th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
10th %ile Green (s)	40.3	40.3			6.0	6.0			15.7	15.7		
10th %ile Term Code	Coord	Coord			Max	Max			Gap	Gap		
Queue Length 50th (ft)		107					23		85	160		
Queue Length 95th (ft)		153					#50		151	#311		
Internal Link Dist (ft)		414					658			653		
Turn Bay Length (ft)												
Base Capacity (vph)		1395					1182		350	385		
Starvation Cap Reductn		0					0		0	0		
Spillback Cap Reductn		0					0		0	0		
Storage Cap Reductn		0					0		0	0		
Reduced v/c Ratio		0.46					0.84		0.55	0.88		

Intersection Summary

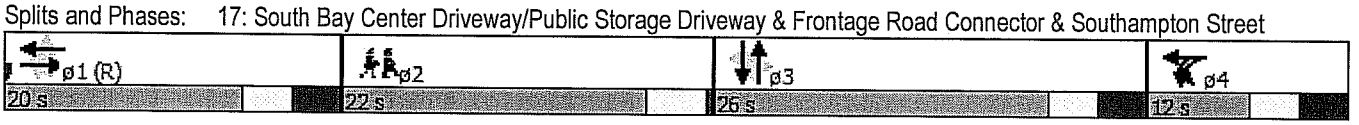
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Lane Group	SBL2	SBT	SBR	ø2
Minimum Initial (s)	5.0	5.0		4.0
Minimum Split (s)	11.0	11.0		22.0
Total Split (s)	26.0	26.0		22.0
Total Split (%)	32.5%	32.5%		28%
Maximum Green (s)	20.0	20.0		18.0
Yellow Time (s)	3.0	3.0		3.5
All-Red Time (s)	3.0	3.0		0.5
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag				
Lead-Lag Optimize?				
Vehicle Extension (s)	2.0	2.0		2.0
Recall Mode	None	None		None
Walk Time (s)				5.0
Flash Dont Walk (s)				13.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		19.1		
Actuated g/C Ratio		0.24		
v/c Ratio		0.02		
Control Delay		16.6		
Queue Delay		0.0		
Total Delay		16.6		
LOS		B		
Approach Delay		16.6		
Approach LOS		B		
90th %ile Green (s)	20.0	20.0		0.0
90th %ile Term Code	Max	Max		Skip
70th %ile Green (s)	20.0	20.0		0.0
70th %ile Term Code	Max	Max		Skip
50th %ile Green (s)	20.0	20.0		0.0
50th %ile Term Code	Max	Max		Skip
30th %ile Green (s)	20.0	20.0		0.0
30th %ile Term Code	Max	Max		Skip
10th %ile Green (s)	15.7	15.7		0.0
10th %ile Term Code	Gap	Gap		Skip
Queue Length 50th (ft)		1		
Queue Length 95th (ft)		12		
Internal Link Dist (ft)		162		
Turn Bay Length (ft)				
Base Capacity (vph)		404		
Starvation Cap Reductn		0		
Spillback Cap Reductn		0		
Storage Cap Reductn		0		
Reduced v/c Ratio		0.02		

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 22.8 Intersection LOS: C
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	0	0	0	138	1099
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.994
Satd. Flow (prot)	3433	0	0	0	0	3518
Flt Permitted	0.950					0.994
Satd. Flow (perm)	3433	0	0	0	0	3518
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	0	0	0	150	1195
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	0	0	0	1345
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0
Minimum Split (s)	15.0				17.0	17.0

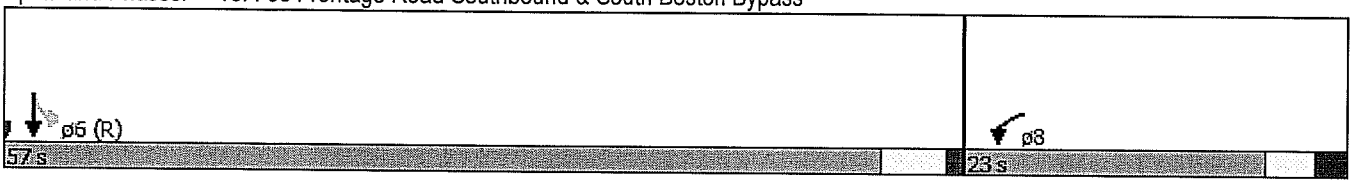
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Split (s)	23.0				57.0	57.0
Total Split (%)	28.8%				71.3%	71.3%
Maximum Green (s)	18.0				52.0	52.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					64.0
Actuated g/C Ratio	0.12					0.80
v/c Ratio	0.18					0.48
Control Delay	22.3					4.2
Queue Delay	0.0					0.0
Total Delay	22.3					4.2
LOS	C					A
Approach Delay	22.3					4.2
Approach LOS	C					A
90th %ile Green (s)	10.0				60.0	60.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				60.0	60.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				60.0	60.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				60.0	60.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				75.0	75.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	9					112
Queue Length 95th (ft)	m26					146
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	772					2814
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.10					0.48

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 5.2 Intersection LOS: A

Intersection Capacity Utilization 51.1%
ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	27	0	0	48	33	22	1403	62	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.939			0.994				
Flt Protected		0.961						0.999				
Satd. Flow (prot)	0	3401	0	0	3323	0	0	5050	0	0	0	0
Flt Permitted		0.718						0.999				
Satd. Flow (perm)	0	2541	0	0	3323	0	0	5050	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17			11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	29	0	0	52	36	24	1525	67	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	150	0	0	88	0	0	1616	0	0	0	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)		0			0			0			0	
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
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	34.0	34.0			34.0		46.0	46.0				
Total Split (%)	42.5%	42.5%			42.5%		57.5%	57.5%				
Maximum Green (s)	26.0	26.0			26.0		40.0	40.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			46.0				
Actuated g/C Ratio		0.25			0.25			0.58				
v/c Ratio		0.24			0.10			0.56				
Control Delay		27.6			19.5			11.4				
Queue Delay		0.0			0.0			0.0				
Total Delay		27.6			19.5			11.4				
LOS		C			B			B				
Approach Delay		27.6			19.5			11.4				
Approach LOS		C			B			B				
90th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		36			14			167				
Queue Length 95th (ft)		64			32			207				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		825			1091			2908				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.18			0.08			0.56				

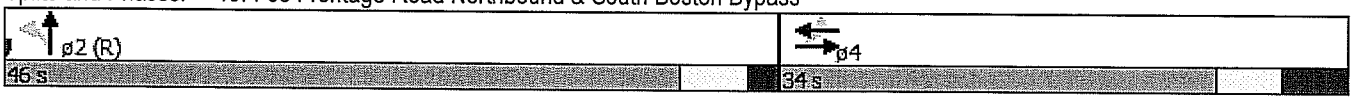
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 13.1 Intersection LOS: B

Intersection Capacity Utilization 57.3%
Analysis Period (min) 15

ICU Level of Service B

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



2021 No-Build Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	
Volume (vph)	0	1022	275	313	1095	602	336	605	535	279	447	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.993	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			31			516		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	7%	12%	18%	6%	5%	7%	11%	10%	6%	11%	7%
Adj. Flow (vph)	0	1076	289	329	1153	634	354	637	563	294	471	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1076	289	329	1153	634	354	637	563	294	495	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		43.0		21.0	64.0		20.0	35.0		21.0	36.0	
Total Split (%)		35.8%		17.5%	53.3%		16.7%	29.2%		17.5%	30.0%	
Maximum Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		37.0	57.0	14.8	57.8	77.5	14.0	30.5	120.0	13.8	30.2	
Actuated g/C Ratio		0.31	0.48	0.12	0.48	0.65	0.12	0.25	1.00	0.12	0.25	
v/c Ratio		1.03	0.40	0.90	0.70	0.63	0.93	0.77	0.38	0.78	0.61	
Control Delay		78.1	16.0	79.9	27.3	15.2	84.1	49.3	0.8	66.0	43.0	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		78.1	16.0	79.9	27.3	15.2	84.1	49.3	0.8	66.0	43.0	
LOS		E	B	E	C	B	F	D	A	E	D	
Approach Delay		64.9			31.8			39.6			51.6	
Approach LOS		E			C			D			D	
90th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
90th %ile Term Code		Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
50th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		37.0		15.0	58.0		14.0	30.8		13.2	30.0	
30th %ile Term Code		Max		Max	Hold		Max	Coord		Gap	Coord	
10th %ile Green (s)		37.0		13.8	56.8		14.0	34.5		10.7	31.2	
10th %ile Term Code		Max		Gap	Hold		Max	Coord		Gap	Coord	
Queue Length 50th (ft)		~471	98	130	356	247	142	246	0	114	177	
Queue Length 95th (ft)		#606	168	#213	436	362	#233	317	0	162	236	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1040	728	371	1646	1008	381	825	1468	412	818	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.03	0.40	0.89	0.70	0.63	0.93	0.77	0.38	0.71	0.61	

Intersection Summary

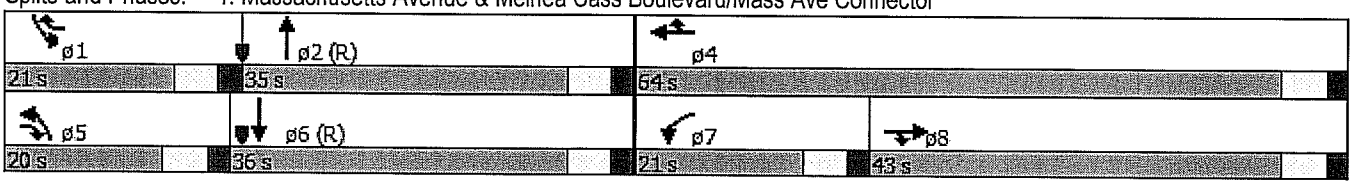
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 44.4
Intersection LOS: D
Intersection Capacity Utilization 81.9%
ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	0	71	0	0	0	125	422	0	3	422	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912										0.850
Flt Protected		0.983					0.950					
Satd. Flow (prot)	0	1703	0	0	0	0	1805	1696	0	0	1713	1615
Flt Permitted		0.983					0.448				0.778	
Satd. Flow (perm)	0	1703	0	0	0	0	851	1696	0	0	1333	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										149
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	11%	0%
Adj. Flow (vph)	41	0	76	0	0	0	134	454	0	3	454	149
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	117	0	0	0	0	134	454	0	0	457	149
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	25.0	25.0					14.0			30.0	30.0	30.0
Total Split (%)	27.8%	27.8%					15.6%			33.3%	33.3%	33.3%
Maximum Green (s)	21.0	21.0					10.0			26.0	26.0	26.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.1					70.7	75.5			60.7	60.7
Actuated g/C Ratio		0.11					0.79	0.84			0.67	0.67
v/c Ratio		0.41					0.17	0.32			0.51	0.13
Control Delay		13.5					1.8	1.9			10.7	1.4
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		13.5					1.8	1.9			10.7	1.4
LOS		B					A	A			B	A
Approach Delay		13.5						1.9			8.4	
Approach LOS		B						A			A	
90th %ile Green (s)	10.7	10.7					10.0			57.3	57.3	57.3
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
70th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
50th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
50th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0					10.0			72.0	72.0	72.0
10th %ile Term Code	Skip	Skip					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		4					9	34			126	0
Queue Length 95th (ft)		53					16	45			209	20
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		480					773	1421			898	1136
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.24					0.17	0.32			0.51	0.13

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

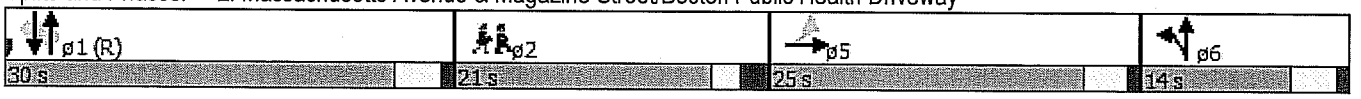
Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 5.9
Intersection Capacity Utilization 62.9%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service B

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	217	141	48	64	73	114	361	477	49	349	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.941			0.920				0.850		0.983	
Flt Protected	0.950			0.950			0.950				0.995	
Satd. Flow (prot)	1752	1706	0	1626	1665	0	1822	1900	1422	0	3406	0
Flt Permitted	0.950			0.950			0.475				0.874	
Satd. Flow (perm)	1752	1706	0	1626	1665	0	911	1900	1422	0	2992	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			60				341		17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	6%	3%	11%	16%	15%	9%	10%	6%	16%	9%	16%
Adj. Flow (vph)	26	219	142	48	65	74	115	365	482	49	353	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	361	0	48	139	0	115	365	482	0	455	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		27.0	27.0		34.0	34.0	27.0	34.0	34.0	
Total Split (%)	27.8%	27.8%		30.0%	30.0%		37.8%	37.8%	30.0%	37.8%	37.8%	
Maximum Green (s)	20.0	20.0		22.0	22.0		28.0	28.0	22.0	28.0	28.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	19.2	19.2		12.0	12.0		42.8	42.8	60.8		42.8	
Actuated g/C Ratio	0.21	0.21		0.13	0.13		0.48	0.48	0.68		0.48	
v/c Ratio	0.07	0.93		0.22	0.51		0.27	0.40	0.45		0.32	
Control Delay	28.3	63.5		35.1	26.7		18.5	18.5	3.3		10.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	28.3	63.5		35.1	26.7		18.5	18.5	3.3		10.5	
LOS	C	E		D	C		B	B	A		B	
Approach Delay		61.1			28.8			10.9			10.5	
Approach LOS		E			C			B			B	
90th %ile Green (s)	20.0	20.0		20.0	20.0		34.0	34.0	20.0	34.0	34.0	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	20.0	20.0		13.9	13.9		40.1	40.1	13.9	40.1	40.1	
70th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	20.0	20.0		10.0	10.0		44.0	44.0	10.0	44.0	44.0	
50th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	20.0	20.0		8.0	8.0		46.0	46.0	8.0	46.0	46.0	
30th %ile Term Code	Max	Max		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	16.0	16.0		8.0	8.0		50.0	50.0	8.0	50.0	50.0	
10th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	12	183		25	43		37	126	26		36	
Queue Length 95th (ft)	33	#346		51	88		91	241	65		76	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	389	404		397	452		433	903	1063		1432	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.07	0.89		0.12	0.31		0.27	0.40	0.45		0.32	

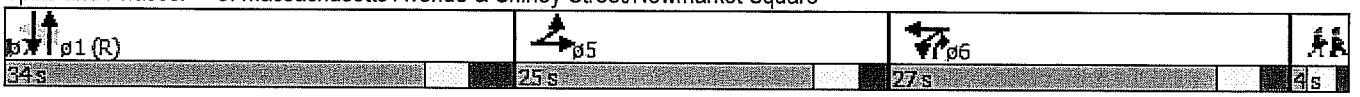
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 22.3 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	203	749	58	211	317
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	5	5	12	3	11
Mvmt Flow	6	207	764	59	215	323

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1386	412	0	0	823	0
Stage 1	794	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Critical Hdwy	6.8	7	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.35	-	-	2.23	-
Pot Cap-1 Maneuver	137	581	-	-	796	-
Stage 1	411	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	92	581	-	-	796	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	350	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	214	581	796	-
HCM Lane V/C Ratio	-	-	0.029	0.357	0.27	-
HCM Control Delay (s)	-	-	22.3	14.6	11.2	0.8
HCM Lane LOS	-	-	C	B	B	A
HCM 95th %tile Q(veh)	-	-	0.1	1.6	1.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	56	41	116	12	48	23	706	220	23	296	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.958			0.880			0.964			0.994	
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	2681	0	1736	1472	0	1805	3791	0	1736	1708	0
Flt Permitted		0.843		0.950			0.434			0.149		
Satd. Flow (perm)	0	2299	0	1736	1472	0	825	3791	0	272	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			51			31			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	20%	38%	20%	4%	20%	12%	0%	5%	1%	4%	10%	25%
Adj. Flow (vph)	55	60	44	123	13	51	24	751	234	24	315	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	123	64	0	24	985	0	24	328	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		25.0		11.2	37.6		26.8	26.8		26.8	26.8	
Actuated g/C Ratio		0.33		0.15	0.49		0.35	0.35		0.35	0.35	
v/c Ratio		1.25dl		0.48	0.09		0.08	0.73		0.25	0.55	
Control Delay		51.5		41.2	3.2		25.7	29.7		35.3	29.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		51.5		41.2	3.2		25.7	29.7		35.3	29.9	
LOS		D		D	A		C	C		D	C	
Approach Delay		51.5			28.2			29.6			30.3	
Approach LOS		D			C			C			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	37.9		13.5	56.4		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	26.8		11.6	43.4		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	18.1		9.2	32.3		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	10.0		0.0	10.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Min		Skip	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		27		57	3		8	226		9	136	
Queue Length 95th (ft)		#86		124	18		32	#435		40	#287	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		293		366	959		290	1353		95	601	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.54		0.34	0.07		0.08	0.73		0.25	0.55	

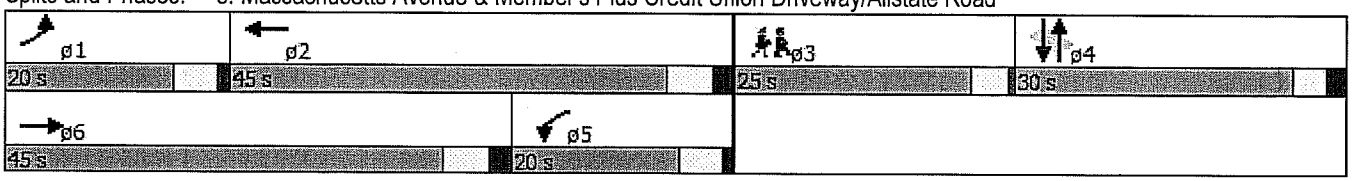
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 76.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 31.6 Intersection LOS: C
Intersection Capacity Utilization 48.8% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 92.4
50th %ile Actuated Cycle: 79.4
30th %ile Actuated Cycle: 68.3
10th %ile Actuated Cycle: 46
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	163	59	0	0	109	0	34	0
Peak Hour Factor	0.92	0.81	0.81	0.92	0.81	0.81	0.92	0.81	0.81
Heavy Vehicles, %	2	5	2	2	0	12	2	0	0
Mvmt Flow	0	201	73	0	0	135	0	42	0
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.6	8.5	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	163	59	109
LT Vol	34	0	0	0
Through Vol	0	163	0	109
RT Vol	0	0	59	0
Lane Flow Rate	42	201	73	135
Geometry Grp	2	7	7	5
Degree of Util (X)	0.058	0.264	0.08	0.172
Departure Headway (Hd)	5.012	4.726	3.974	4.589
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	753	891	786
Service Time	3.02	2.5	1.747	2.593
HCM Lane V/C Ratio	0.058	0.267	0.082	0.172
HCM Control Delay	8.3	9.2	7.1	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.1	0.3	0.6

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	29	174	775	9	50	407
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	3	5	0	18	8
Mvmt Flow	32	193	861	10	56	452

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1203	436	0	0	871	0
Stage 1	866	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.8	6.96	-	-	4.46	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.33	-	-	2.38	-
Pot Cap-1 Maneuver	180	565	-	-	676	-
Stage 1	377	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	160	565	-	-	676	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	377	-	-	-	-	-
Stage 2	623	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	415	676	-
HCM Lane V/C Ratio	-	-	0.544	0.082	-
HCM Control Delay (s)	-	-	23.5	10.8	0.5
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	3.2	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	552	410	53	277	6	347	279	279	8	190	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.997			0.925			0.937	
Flt Protected	0.950				0.992		0.950				0.999	
Satd. Flow (prot)	3433	1792	1524	0	3230	0	3242	1674	0	0	3076	0
Flt Permitted	0.950				0.746		0.950				0.588	
Satd. Flow (perm)	3433	1792	1524	0	2429	0	3242	1674	0	0	1810	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436		1			51			148	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	6%	4%	12%	0%	8%	6%	4%	27%	9%	10%
Adj. Flow (vph)	398	587	436	56	295	6	369	297	297	9	202	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	398	587	436	0	357	0	369	594	0	0	365	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		18.0	24.0	24.0		18.0			16.0	16.0	
Total Split (%)	15.0%		18.0%	24.0%	24.0%		18.0%			16.0%	16.0%	
Maximum Green (s)	11.0		14.0	19.0	19.0		14.0			11.0	11.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	80.0		46.0		14.0	30.0			11.0	
Actuated g/C Ratio	0.11	0.61	0.80		0.46		0.14	0.30			0.11	
v/c Ratio	1.06	0.54	0.33		0.32		0.81	1.11			1.11	
Control Delay	105.6	13.6	0.9		18.0		57.3	102.9			107.3	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	105.6	13.6	0.9		18.0		57.3	102.9			107.3	
LOS	F	B	A		B		E	F			F	
Approach Delay		35.5			18.0			85.4			107.3	
Approach LOS		D			B			F			F	
90th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~143	200	0		73		119	~410			~92	
Queue Length 95th (ft)	#238	291	15		107		#189	#625			#188	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	377	1093	1306		1117		453	537			330	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.06	0.54	0.33		0.32		0.81	1.11			1.11	

Intersection Summary

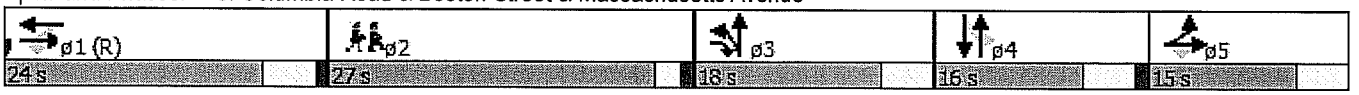
Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 57.4 Intersection LOS: E
Intersection Capacity Utilization 99.3% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	436	51	162	342	114	48	187	422	129	150	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.963				0.850		0.968	
Flt Protected	0.950			0.950				0.990		0.950		
Satd. Flow (prot)	1626	3304	0	1612	3623	0	0	1614	1538	1719	1633	0
Flt Permitted	0.950			0.950				0.708		0.407		
Satd. Flow (perm)	1626	3304	0	1612	3623	0	0	1154	1538	736	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			38				449		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	11%	7%	12%	12%	10%	5%	11%	18%	5%	5%	15%	4%
Adj. Flow (vph)	48	464	54	172	364	121	51	199	449	137	160	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	518	0	172	485	0	0	250	449	137	204	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	16.0	27.0		19.0	30.0		29.0	29.0	19.0	29.0	29.0	
Total Split (%)	14.5%	24.5%		17.3%	27.3%		26.4%	26.4%	17.3%	26.4%	26.4%	
Maximum Green (s)	10.0	21.0		13.0	24.0		22.0	22.0	13.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.6	56.1		12.9	63.2			22.0	73.6	22.0	22.0	
Actuated g/C Ratio	0.08	0.51		0.12	0.57			0.20	0.67	0.20	0.20	
v/c Ratio	0.38	0.31		0.91	0.23			1.09	0.38	0.93	0.61	
Control Delay	56.8	15.9		95.6	11.6			126.9	1.6	103.2	46.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	56.8	15.9		95.6	11.6			126.9	1.6	103.2	46.6	
LOS	E	B		F	B			F	A	F	D	
Approach Delay		19.4			33.6			46.4			69.3	
Approach LOS		B			C			D			E	
90th %ile Green (s)	10.0	56.0		13.0	59.0		22.0	22.0	13.0	22.0	22.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	9.0	56.0		13.0	60.0		22.0	22.0	13.0	22.0	22.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	56.7		12.3	75.0		22.0	22.0	12.3	22.0	22.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	33	105		122	80			~198	0	96	125	
Queue Length 95th (ft)	71	142		#252	115			#359	30	#219	205	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	147	1690		190	2097			230	1177	147	335	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.33	0.31		0.91	0.23			1.09	0.38	0.93	0.61	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	32%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

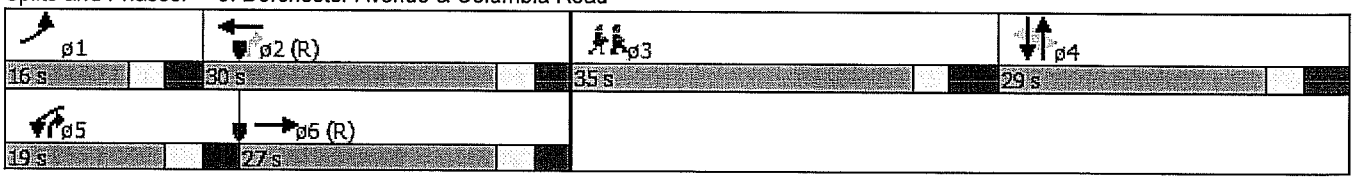
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 39.4 Intersection LOS: D
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	21	7	13	503	439	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	12	22	19	8	9	12
Mvmt Flow	23	8	14	541	472	83

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1082	513	555	0	-	0
Stage 1	513	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Critical Hdwy	6.52	6.42	4.29	-	-	-
Critical Hdwy Stg 1	5.52	-	-	-	-	-
Critical Hdwy Stg 2	5.52	-	-	-	-	-
Follow-up Hdwy	3.608	3.498	2.371	-	-	-
Pot Cap-1 Maneuver	230	524	936	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	225	524	936	-	-	-
Mov Cap-2 Maneuver	225	-	-	-	-	-
Stage 1	581	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	936	-	262	-	-
HCM Lane V/C Ratio	0.015	-	0.115	-	-
HCM Control Delay (s)	8.9	0	20.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	2	13	0	0	0	15	407	50	32	377	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	21	0	0	0	0	10	1	2	14	13
Mvmt Flow	11	2	14	0	0	0	16	447	55	35	414	24

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1005	1032	426	438	0	0	502	0	0
Stage 1	497	497	-	-	-	-	-	-	-
Stage 2	508	535	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.41	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.489	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	243	235	590	1133	-	-	1062	-	-
Stage 1	567	548	-	-	-	-	-	-	-
Stage 2	560	527	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	228	0	590	1133	-	-	1062	-	-
Mov Cap-2 Maneuver	228	0	-	-	-	-	-	-	-
Stage 1	542	0	-	-	-	-	-	-	-
Stage 2	549	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	0.3	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1133	-	-	349	1062	-	-
HCM Lane V/C Ratio	0.015	-	-	0.079	0.033	-	-
HCM Control Delay (s)	8.2	0	-	16.2	8.5	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	47	287	0	0	0	0	424	4	7	276	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.871						0.999				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1687	1627	0	0	0	0	0	1759	0	0	1761	0
Flt Permitted	0.950										0.990	
Satd. Flow (perm)	1687	1627	0	0	0	0	0	1759	0	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		288						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			230			362			550	
Travel Time (s)		7.0			5.2			8.2			12.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	7%	0%	2%	0%	0%	0%	0%	8%	0%	0%	8%	0%
Adj. Flow (vph)	87	53	322	0	0	0	0	476	4	8	310	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	375	0	0	0	0	0	480	0	0	318	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	10.6	10.6						45.1			45.1	
Actuated g/C Ratio	0.16	0.16						0.69			0.69	
v/c Ratio	0.32	0.75						0.40			0.27	
Control Delay	27.2	16.9						6.3			5.2	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	27.2	16.9						6.3			5.2	
LOS	C	B						A			A	
Approach Delay		18.8						6.3			5.2	
Approach LOS		B						A			A	
90th %ile Green (s)	17.7	17.7						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	11.6	11.6						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.4	8.4						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
10th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
Queue Length 50th (ft)	31	31						57			34	
Queue Length 95th (ft)	66	106						156			96	
Internal Link Dist (ft)		228			150			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	643	798						1207			1198	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.14	0.47						0.40			0.27	

Intersection Summary

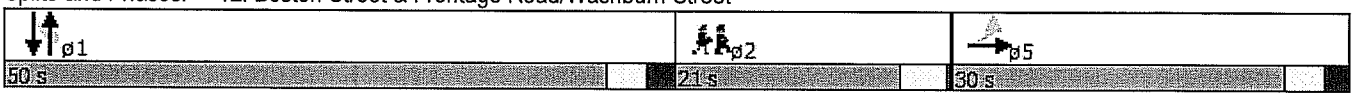
Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 65.7
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 10.6
Intersection LOS: B
Intersection Capacity Utilization 51.1%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 72.7
70th %ile Actuated Cycle: 66.6
50th %ile Actuated Cycle: 63.4
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 63

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	95	116	163	16	15	12	49	344	15	5	2	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.976					0.993				
Flt Protected		0.950						0.993				
Satd. Flow (prot)	0	1616	1756	0	0	0	0	3315	0	0	0	0
Flt Permitted		0.237						0.863				
Satd. Flow (perm)	0	403	1756	0	0	0	0	2881	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			3					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	15%	9%	6%	0%	7%	33%	19%	5%	0%	20%	0%	8%
Adj. Flow (vph)	96	117	165	16	15	12	49	347	15	5	2	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	213	196	0	0	0	0	428	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	138	96	10	8	10	45	76	51	190	145	106	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.958					0.899					0.994	
Flt Protected	0.982					0.995					0.965	
Satd. Flow (prot)	3094	0	0	0	0	2512	0	0	0	0	3120	0
Flt Permitted	0.765					0.888					0.965	
Satd. Flow (perm)	2410	0	0	0	0	2241	0	0	0	0	3120	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	2					33						
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	8%	15%	10%	38%	30%	23%	27%	34%	11%	11%	12%	5%
Adj. Flow (vph)	139	97	10	8	10	45	77	52	192	146	107	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	384	0	0	0	0	192	0	0	0	0	464	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations					
Volume (vph)	2	39	101	190	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	
Storage Lanes		0		0	
Taper Length (ft)		25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95
Frt			0.912		
Flt Protected			0.994		
Satd. Flow (prot)	0	0	2973	0	0
Flt Permitted			0.994		
Satd. Flow (perm)	0	0	2973	0	0
Right Turn on Red					Yes
Satd. Flow (RTOR)			2		
Link Speed (mph)			30		
Link Distance (ft)			1221		
Travel Time (s)			27.8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	16%	12%	8%	9%
Adj. Flow (vph)	2	39	102	192	11
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	0	346	0	0
Enter Blocked Intersection	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right
Median Width(ft)			0		
Link Offset(ft)			0		
Crosswalk Width(ft)			16		
Two way Left Turn Lane					
Headway Factor	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	9
Number of Detectors	1	1	2		
Detector Template	Left	Left	Thru		
Leading Detector (ft)	20	20	100		
Trailing Detector (ft)	0	0	0		
Detector 1 Position(ft)	0	0	0		
Detector 1 Size(ft)	20	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel					
Detector 1 Extend (s)	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		
Detector 2 Position(ft)			94		
Detector 2 Size(ft)			6		
Detector 2 Type			Cl+Ex		
Detector 2 Channel					
Detector 2 Extend (s)			0.0		
Turn Type	Split	Split	NA		
Protected Phases	7	7	7		
Permitted Phases					

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	14.0	14.0	14.0			29.0	29.0	29.0			42.0	42.0
Total Split (%)	9.3%	9.3%	9.3%			19.3%	19.3%	19.3%			28.0%	28.0%
Maximum Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		35.0	39.0					23.0				
Actuated g/C Ratio		0.23	0.26					0.15				
v/c Ratio		1.22	0.43					0.97				
Control Delay		183.0	48.9					97.8				
Queue Delay		0.0	0.0					0.0				
Total Delay		183.0	48.9					97.8				
LOS		F	D					F				
Approach Delay			118.7					97.8				
Approach LOS			F					F				
90th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.9	35.9
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			40.8	40.8
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			47.9	47.9
10th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
Queue Length 50th (ft)		~185	158					222				
Queue Length 95th (ft)		#357	238					#336				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		174	458					442				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.22	0.43					0.97				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	42.0			42.0	42.0	42.0			35.0	35.0	35.0	
Total Split (%)	28.0%			28.0%	28.0%	28.0%			23.3%	23.3%	23.3%	
Maximum Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	38.9					38.9					26.0	
Actuated g/C Ratio	0.26					0.26					0.17	
v/c Ratio	0.61					0.32					1.20dl	
Control Delay	54.7					39.7					76.3	
Queue Delay	0.0					0.0					0.0	
Total Delay	54.7					39.7					76.3	
LOS	D					D					E	
Approach Delay	54.7					39.7					76.3	
Approach LOS	D					D					E	
90th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
70th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
50th %ile Green (s)	35.9			35.9	35.9	35.9			27.5	27.5	27.5	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	40.8			40.8	40.8	40.8			25.0	25.0	25.0	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	47.9			47.9	47.9	47.9			21.3	21.3	21.3	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	179					67					232	
Queue Length 95th (ft)	242					108					298	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	626					606					582	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.61					0.32					0.80	

Intersection Summary

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Detector Phase	7	7	7		
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0		
Minimum Split (s)	17.0	17.0	17.0		
Total Split (s)	30.0	30.0	30.0		
Total Split (%)	20.0%	20.0%	20.0%		
Maximum Green (s)	23.0	23.0	23.0		
Yellow Time (s)	3.0	3.0	3.0		
All-Red Time (s)	4.0	4.0	4.0		
Lost Time Adjust (s)			0.0		
Total Lost Time (s)			7.0		
Lead/Lag	Lead	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0		
Recall Mode	None	None	None		
Act Effct Green (s)			21.1		
Actuated g/C Ratio			0.14		
v/c Ratio			0.94dr		
Control Delay			78.8		
Queue Delay			0.0		
Total Delay			78.8		
LOS			E		
Approach Delay			78.8		
Approach LOS			E		
90th %ile Green (s)	23.0	23.0	23.0		
90th %ile Term Code	Max	Max	Max		
70th %ile Green (s)	23.0	23.0	23.0		
70th %ile Term Code	Max	Max	Max		
50th %ile Green (s)	22.6	22.6	22.6		
50th %ile Term Code	Gap	Gap	Gap		
30th %ile Green (s)	20.2	20.2	20.2		
30th %ile Term Code	Gap	Gap	Gap		
10th %ile Green (s)	16.8	16.8	16.8		
10th %ile Term Code	Gap	Gap	Gap		
Queue Length 50th (ft)			172		
Queue Length 95th (ft)			231		
Internal Link Dist (ft)			1141		
Turn Bay Length (ft)					
Base Capacity (vph)			457		
Starvation Cap Reductn			0		
Spillback Cap Reductn			0		
Storage Cap Reductn			0		
Reduced v/c Ratio			0.76		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 81.8 Intersection LOS: F
Intersection Capacity Utilization 99.4% ICU Level of Service F
Analysis Period (min) 15

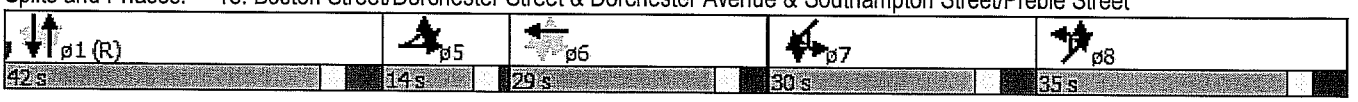
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	469	374	0	0	581	424	371	25	92	0	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.994					0.950	0.958				
Satd. Flow (prot)	1466	1848	0	0	3374	1743	1779	1629	1572	0	0	1757
Flt Permitted	0.950	0.994					0.950	0.958				
Satd. Flow (perm)	1466	1848	0	0	3374	1743	1779	1629	1572	0	0	1757
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						151			109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	17%	9%	0%	0%	7%	5%	6%	7%	13%	0%	0%	6%
Adj. Flow (vph)	494	394	0	0	612	446	391	26	97	0	0	56
Shared Lane Traffic (%)	12%						47%					
Lane Group Flow (vph)	435	453	0	0	612	446	207	210	97	0	0	56
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	30.0	30.0			40.0	40.0	30.0	30.0	30.0			30.0
Total Split (%)	30.0%	30.0%			40.0%	40.0%	30.0%	30.0%	30.0%			30.0%
Maximum Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	28.8	28.8			34.0	34.0	17.2	17.2	17.2			28.8
Actuated g/C Ratio	0.29	0.29			0.34	0.34	0.17	0.17	0.17			0.29
v/c Ratio	1.03	0.85			0.53	0.64	0.68	0.75	0.27			0.10
Control Delay	78.3	41.4			28.7	23.0	49.5	55.5	7.2			0.8
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	78.3	41.4			28.7	23.0	49.5	55.5	7.2			0.8
LOS	E	D			C	C	D	E	A			A
Approach Delay		59.5			26.3			44.0				
Approach LOS		E			C			D				
90th %ile Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	25.2	25.2			34.0	34.0	20.8	20.8	20.8			25.2
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	28.8	28.8			34.0	34.0	17.2	17.2	17.2			28.8
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	31.6	31.6			34.0	34.0	14.4	14.4	14.4			31.6
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	35.5	35.5			34.0	34.0	10.5	10.5	10.5			35.5
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	~317	294			164	157	131	135	0			0
Queue Length 95th (ft)	#568	#531			218	266	197	205	34			4
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	422	532			1147	692	409	374	445			584
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	1.03	0.85			0.53	0.64	0.51	0.56	0.22			0.10

Intersection Summary

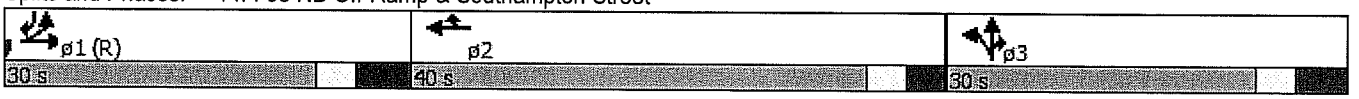
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Offset: 5 (5%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 41.0 Intersection LOS: D
Intersection Capacity Utilization 76.7% ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	29	0	0	195	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	10	18
Mvmt Flow	0	31	0	0	207	293

Major/Minor	Minor2		Major2	
Conflicting Flow All	207	207	-	0
Stage 1	207	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.22	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-
Pot Cap-1 Maneuver	755	833	-	-
Stage 1	800	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	755	833	-	-
Mov Cap-2 Maneuver	755	-	-	-
Stage 1	800	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	9.5	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	833	-	-
HCM Lane V/C Ratio	0.037	-	-
HCM Control Delay (s)	9.5	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	36	0	0	1071	0	0	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1644	0	0	3312	0	0	2515
Flt Permitted								
Satd. Flow (perm)	0	1644	0	0	3312	0	0	2515
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	9%	0%	0%	13%
Adj. Flow (vph)	0	39	0	0	1152	0	0	261
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	39	0	0	1152	0	0	261
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

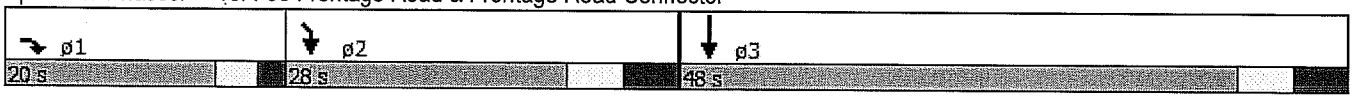
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.10			0.48			0.24
v/c Ratio		0.13			0.72			0.43
Control Delay		0.9			21.7			30.9
Queue Delay		0.0			0.0			0.0
Total Delay		0.9			21.7			30.9
LOS		A			C			C
Approach Delay					21.7			
Approach LOS					C			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		0.0			40.0			20.0
30th %ile Term Code		Skip			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			277			72
Queue Length 95th (ft)		0			361			113
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		417			1590			603
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.09			0.72			0.43

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 83.8
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 22.8 Intersection LOS: C

Intersection Capacity Utilization 62.3%
ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 76
10th %ile Actuated Cycle: 76

Splits and Phases: 16: I-93 Frontage Road & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	588	173	43	58	148	793	1	142	0	247	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.960								0.850			
Flt Protected						0.990		0.950				
Satd. Flow (prot)	2953	0	0	0	0	3419	0	1492	1508	0	0	0
Flt Permitted						0.578		0.757				
Satd. Flow (perm)	2953	0	0	0	0	1996	0	1189	1508	0	0	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)	5								142			
Link Speed (mph)	30					30			30			
Link Distance (ft)	494					738			733			
Travel Time (s)	11.2					16.8			16.7			
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 (%)	21%	7%	9%	2%	3%	5%	0%	21%	0%	7%	9%	0%
Adj. Flow (vph)	639	188	47	63	161	862	1	154	0	268	12	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	874	0	0	0	0	1087	0	154	280	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right	Left
Median Width(ft)	0					0			12			
Link Offset(ft)	0					0			0			
Crosswalk Width(ft)	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	0.85	1.00	1.00
Turning Speed (mph)		9	9	15	15		9	15		9	9	15
Number of Detectors	2			1	1	2		1	2			1
Detector Template	Thru			Left	Left	Thru		Left	Thru			Left
Leading Detector (ft)	100			20	20	100		20	100			20
Trailing Detector (ft)	0			0	0	0		0	0			0
Detector 1 Position(ft)	0			0	0	0		0	0			0
Detector 1 Size(ft)	6			20	20	6		20	6			20
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 2 Position(ft)	94					94			94			
Detector 2 Size(ft)	6					6			6			
Detector 2 Type	Cl+Ex					Cl+Ex			Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0			0.0			
Turn Type	NA			pm+pt	pm+pt	NA		Perm	NA			Perm
Protected Phases	1			4	4	1 4			3			
Permitted Phases				1 4	1 4			3				3
Detector Phase	1			4	4	1 4		3	3			3
Switch Phase												

Lane Group	SBT	ø2
Lane Configurations	↕	
Volume (vph)	0	
Ideal Flow (vphpl)	1900	
Lane Width (ft)	12	
Lane Util. Factor	1.00	
Frt		
Flt Protected	0.950	
Satd. Flow (prot)	1805	
Flt Permitted	0.279	
Satd. Flow (perm)	530	
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	242	
Travel Time (s)	5.5	
Peak Hour Factor	0.92	
Heavy Vehicles (%)	0%	
Adj. Flow (vph)	0	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1	
Enter Blocked Intersection	No	
Lane Alignment	Left	
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)		
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	3	2
Permitted Phases		
Detector Phase	3	
Switch Phase		

Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Minimum Initial (s)	10.0			5.0	5.0			5.0	5.0			5.0
Minimum Split (s)	16.0			11.0	11.0			11.0	11.0			11.0
Total Split (s)	23.0			21.0	21.0			34.0	34.0			34.0
Total Split (%)	23.0%			21.0%	21.0%			34.0%	34.0%			34.0%
Maximum Green (s)	17.0			15.0	15.0			28.0	28.0			28.0
Yellow Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
All-Red Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
Lost Time Adjust (s)	0.0							0.0	0.0			
Total Lost Time (s)	6.0							6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0			2.0	2.0			2.0
Recall Mode	C-Max			None	None			None	None			None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	49.5					64.5		17.5	17.5			
Actuated g/C Ratio	0.50					0.64		0.18	0.18			
v/c Ratio	0.60					0.72		0.74	0.74			
Control Delay	21.4					7.4		59.2	29.9			
Queue Delay	0.0					0.0		0.0	0.0			
Total Delay	21.4					7.4		59.2	29.9			
LOS	C					A		E	C			
Approach Delay	21.4					7.4			40.3			
Approach LOS	C					A			D			
90th %ile Green (s)	41.1			15.0	15.0			25.9	25.9			25.9
90th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
70th %ile Green (s)	46.4			15.0	15.0			20.6	20.6			20.6
70th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
50th %ile Green (s)	49.6			15.0	15.0			17.4	17.4			17.4
50th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
30th %ile Green (s)	52.9			15.0	15.0			14.1	14.1			14.1
30th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
10th %ile Green (s)	57.6			15.0	15.0			9.4	9.4			9.4
10th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
Queue Length 50th (ft)	200					65		94	83			
Queue Length 95th (ft)	313					68		148	159			
Internal Link Dist (ft)	414					658			653			
Turn Bay Length (ft)												
Base Capacity (vph)	1464					1501		332	524			
Starvation Cap Reductn	0					0		0	0			
Spillback Cap Reductn	0					0		0	0			
Storage Cap Reductn	0					0		0	0			
Reduced v/c Ratio	0.60					0.72		0.46	0.53			

Intersection Summary

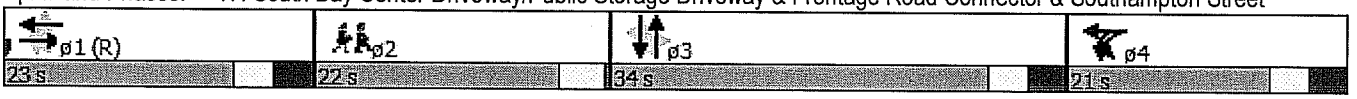
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Lane Group	SBT	ø2
Minimum Initial (s)	5.0	4.0
Minimum Split (s)	11.0	22.0
Total Split (s)	34.0	22.0
Total Split (%)	34.0%	22%
Maximum Green (s)	28.0	18.0
Yellow Time (s)	3.0	3.5
All-Red Time (s)	3.0	0.5
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		13.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)	17.5	
Actuated g/C Ratio	0.18	
v/c Ratio	0.01	
Control Delay	30.0	
Queue Delay	0.0	
Total Delay	30.0	
LOS	C	
Approach Delay	30.0	
Approach LOS	C	
90th %ile Green (s)	25.9	0.0
90th %ile Term Code	Gap	Skip
70th %ile Green (s)	20.6	0.0
70th %ile Term Code	Gap	Skip
50th %ile Green (s)	17.4	0.0
50th %ile Term Code	Gap	Skip
30th %ile Green (s)	14.1	0.0
30th %ile Term Code	Gap	Skip
10th %ile Green (s)	9.4	0.0
10th %ile Term Code	Gap	Skip
Queue Length 50th (ft)	1	
Queue Length 95th (ft)	5	
Internal Link Dist (ft)	162	
Turn Bay Length (ft)		
Base Capacity (vph)	148	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.01	

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 18.5
Intersection LOS: B
Intersection Capacity Utilization 82.1%
ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	96	0	0	0	162	1174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.994
Satd. Flow (prot)	3662	0	0	0	0	3870
Flt Permitted	0.950					0.994
Satd. Flow (perm)	3662	0	0	0	0	3870
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	0	0	0	176	1276
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	0	0	1452
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	25.0				65.0	65.0
Total Split (%)	27.8%				72.2%	72.2%
Maximum Green (s)	20.0				60.0	60.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.26					0.46
Control Delay	23.4					3.6
Queue Delay	0.0					0.0
Total Delay	23.4					3.6
LOS	C					A
Approach Delay	23.4					3.6
Approach LOS	C					A
90th %ile Green (s)	10.0				70.0	70.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	29					118
Queue Length 95th (ft)	m54					150
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	813					3182
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.13					0.46

Intersection Summary

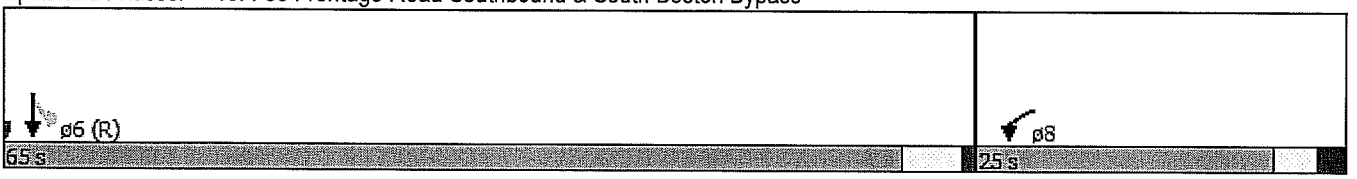
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.46

Intersection Signal Delay: 4.9
Intersection Capacity Utilization 53.8%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

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

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	52	0	0	74	76	22	1602	114	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.924			0.990				
Flt Protected		0.967						0.999				
Satd. Flow (prot)	0	3879	0	0	3379	0	0	5365	0	0	0	0
Flt Permitted		0.708						0.999				
Satd. Flow (perm)	0	2840	0	0	3379	0	0	5365	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					21			22				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	57	0	0	80	83	24	1741	124	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	163	0	0	1889	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.28			0.21			0.56				
Control Delay		28.6			25.7			10.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		28.6			25.7			10.6				
LOS		C			C			B				
Approach Delay		28.6			25.7			10.6				
Approach LOS		C			C			B				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		45			34			205				
Queue Length 95th (ft)		76			62			244				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		694			841			3346				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.26			0.19			0.56				

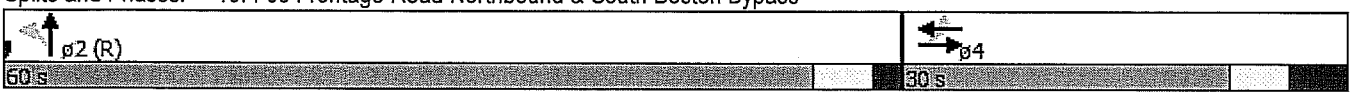
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56

Intersection Signal Delay: 13.1
Intersection Capacity Utilization 85.6%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service E

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	742	504	420	941	520	289	535	428	416	704	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			46			455			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	3%	8%	3%	3%	5%	5%	3%	4%	5%	0%
Adj. Flow (vph)	0	789	536	447	1001	553	307	569	455	443	749	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	789	536	447	1001	553	307	569	455	443	753	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		40.0		22.0	63.0		22.0	35.0		22.0	35.0	
Total Split (%)		33.3%		18.3%	52.5%		18.3%	29.2%		18.3%	29.2%	
Maximum Green (s)		34.0		16.0	57.0		16.0	29.0		16.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		32.3	52.7	16.0	54.3	76.3	14.4	31.7	120.0	16.0	33.3	
Actuated g/C Ratio		0.27	0.44	0.13	0.45	0.64	0.12	0.26	1.00	0.13	0.28	
v/c Ratio		0.85	0.73	1.03	0.63	0.55	0.77	0.63	0.29	0.99	0.79	
Control Delay		51.3	29.3	103.2	27.1	13.1	64.4	43.1	0.5	92.0	48.1	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		51.3	29.3	103.2	27.1	13.1	64.4	43.1	0.5	92.0	48.1	
LOS		D	C	F	C	B	E	D	A	F	D	
Approach Delay		42.4			40.2			33.5			64.3	
Approach LOS		D			D			C			E	
90th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
90th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
70th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		34.0		16.0	56.0		15.3	30.0		16.0	30.7	
50th %ile Term Code		Max		Max	Hold		Gap	Coord		Max	Coord	
30th %ile Green (s)		32.9		16.0	54.9		13.6	31.1		16.0	33.5	
30th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
10th %ile Green (s)		26.8		16.0	48.8		11.0	37.2		16.0	42.2	
10th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		299	276	~191	296	193	119	209	0	178	293	
Queue Length 95th (ft)		377	409	#296	366	284	168	273	0	#287	#398	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1002	708	432	1664	965	444	907	1568	448	953	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.79	0.76	1.03	0.60	0.57	0.69	0.63	0.29	0.99	0.79	

Intersection Summary

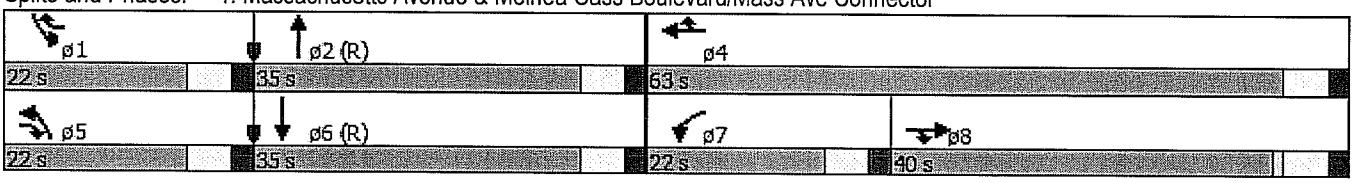
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 58 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 44.1
Intersection LOS: D
Intersection Capacity Utilization 80.3%
ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	0	125	0	0	0	71	241	0	1	466	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.936										0.850
Flt Protected		0.974					0.950					
Satd. Flow (prot)	0	1698	0	0	0	0	1736	1810	0	0	1810	1524
Flt Permitted		0.974					0.391				0.849	
Satd. Flow (perm)	0	1698	0	0	0	0	714	1810	0	0	1536	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98										98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	4%	5%	0%	0%	5%	6%
Adj. Flow (vph)	151	0	136	0	0	0	77	262	0	1	507	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	287	0	0	0	0	77	262	0	0	508	41
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	37.0	37.0					13.0			29.0	29.0	29.0
Total Split (%)	37.0%	37.0%					13.0%			29.0%	29.0%	29.0%
Maximum Green (s)	33.0	33.0					9.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.4					70.6	74.6			61.6	61.6
Actuated g/C Ratio		0.17					0.71	0.75			0.62	0.62
v/c Ratio		0.76					0.13	0.19			0.54	0.04
Control Delay		38.4					3.8	3.6			14.9	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		38.4					3.8	3.6			14.9	0.1
LOS		D					A	A			B	A
Approach Delay		38.4						3.7			13.8	
Approach LOS		D						A			B	
90th %ile Green (s)	25.3	25.3					9.0			53.7	53.7	53.7
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	20.5	20.5					9.0			58.5	58.5	58.5
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	17.2	17.2					9.0			61.8	61.8	61.8
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	13.9	13.9					9.0			65.1	65.1	65.1
30th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					9.0			69.0	69.0	69.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		116					8	28			170	0
Queue Length 95th (ft)		190					22	58			322	0
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		626					596	1350			946	976
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.46					0.13	0.19			0.54	0.04

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 33 (33%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 16.9
Intersection LOS: B
Intersection Capacity Utilization 66.6%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	77	232	134	82	42	163	323	270	30	594	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.887			0.949				0.850		0.991	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1687	1652	0	1736	1876	0	1966	2029	1463	0	3677	0
Flt Permitted	0.950			0.950			0.351				0.925	
Satd. Flow (perm)	1687	1652	0	1736	1876	0	726	2029	1463	0	3408	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		140			23				281		8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	7%	5%	1%	4%	3%	11%	1%	3%	3%	13%	3%	5%
Adj. Flow (vph)	31	80	242	140	85	44	170	336	281	31	619	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	322	0	140	129	0	170	336	281	0	692	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	27.0	27.0		23.0	23.0		46.0	46.0	23.0	46.0	46.0	
Total Split (%)	27.0%	27.0%		23.0%	23.0%		46.0%	46.0%	23.0%	46.0%	46.0%	
Maximum Green (s)	22.0	22.0		18.0	18.0		40.0	40.0	18.0	40.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	15.8	15.8		12.8	12.8		55.4	55.4	74.2		55.4	
Actuated g/C Ratio	0.16	0.16		0.13	0.13		0.55	0.55	0.74		0.55	
v/c Ratio	0.12	0.85		0.63	0.50		0.42	0.30	0.24		0.37	
Control Delay	34.2	43.0		53.4	38.9		20.3	14.8	1.2		9.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	34.2	43.0		53.4	38.9		20.3	14.8	1.2		9.2	
LOS	C	D		D	D		C	B	A		A	
Approach Delay		42.2			46.4			11.1			9.2	
Approach LOS		D			D			B			A	
90th %ile Green (s)	22.0	22.0		18.0	18.0		44.0	44.0	18.0	44.0	44.0	
90th %ile Term Code	Max	Max		Max	Max		Coord	Coord	Max	Coord	Coord	
70th %ile Green (s)	20.0	20.0		15.4	15.4		48.6	48.6	15.4	48.6	48.6	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	16.4	16.4		12.4	12.4		55.2	55.2	12.4	55.2	55.2	
50th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	12.6	12.6		10.3	10.3		61.1	61.1	10.3	61.1	61.1	
30th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		68.0	68.0	8.0	68.0	68.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	17	115		86	64		60	108	0		58	
Queue Length 95th (ft)	40	204		141	115		148	209	24		117	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	371	472		312	356		401	1123	1152		1891	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.08	0.68		0.45	0.36		0.42	0.30	0.24		0.37	

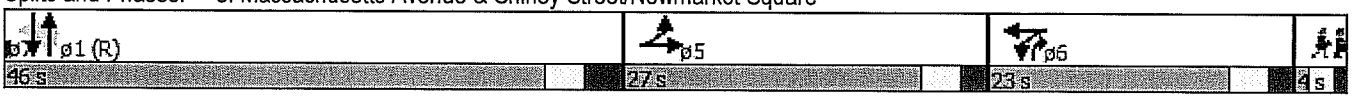
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 24 (24%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 20.2 Intersection LOS: C
Intersection Capacity Utilization 79.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	5.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	288	454	43	362	598
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	8	2	2	9	1	4
Mvmt Flow	23	297	468	44	373	616

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1545	256	0	0	512	0
Stage 1	490	-	-	-	-	-
Stage 2	1055	-	-	-	-	-
Critical Hdwy	6.96	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.96	-	-	-	-	-
Critical Hdwy Stg 2	5.96	-	-	-	-	-
Follow-up Hdwy	3.58	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	99	743	-	-	1057	-
Stage 1	564	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	743	-	-	1057	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	131	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.4	0	4.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	109	743	1057	-
HCM Lane V/C Ratio	-	-	0.208	0.4	0.353	-
HCM Control Delay (s)	-	-	46.5	13	10.3	1.2
HCM Lane LOS	-	-	E	B	B	A
HCM 95th %tile Q(veh)	-	-	0.7	1.9	1.6	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	14	14	324	8	101	12	399	271	76	539	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.943			0.861			0.939			0.999	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	3142	0	1770	1621	0	1504	3738	0	1770	1824	0
Flt Permitted		0.870		0.950			0.263			0.332		
Satd. Flow (perm)	0	2767	0	1770	1621	0	416	3738	0	618	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			104			126				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	15%	0%	9%	2%	0%	1%	20%	4%	1%	2%	4%	13%
Adj. Flow (vph)	9	14	14	334	8	104	12	411	279	78	556	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	37	0	334	112	0	12	690	0	78	561	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.2		15.3	19.7		25.5	25.5		25.5	25.5	
Actuated g/C Ratio		0.18		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		1.00dr		0.70	0.18		0.06	0.39		0.28	0.68	
Control Delay		20.4		31.0	3.8		13.6	10.4		16.2	20.5	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		20.4		31.0	3.8		13.6	10.4		16.2	20.5	
LOS		C		C	A		B	B		B	C	
Approach Delay		20.4			24.2			10.4			19.9	
Approach LOS		C			C			B			B	
90th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		3		83	2		2	46		12	107	
Queue Length 95th (ft)		17		#258	25		13	128		56	#361	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		685		479	1172		188	1757		279	823	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.05		0.70	0.10		0.06	0.39		0.28	0.68	

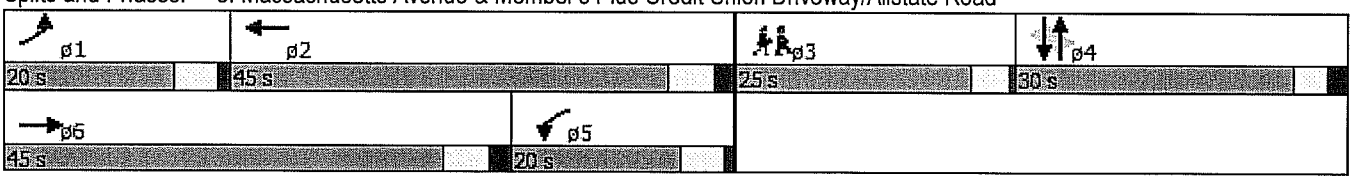
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 56.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 17.3 Intersection LOS: B
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 66
70th %ile Actuated Cycle: 66
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	192	128	0	2	195	0	114	4
Peak Hour Factor	0.92	0.93	0.93	0.92	0.93	0.93	0.92	0.93	0.93
Heavy Vehicles, %	2	1	1	2	0	0	2	1	17
Mvmt Flow	0	206	138	0	2	210	0	123	4
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9	9.5	9.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	97%	0%	0%	1%
Vol Thru, %	0%	100%	0%	99%
Vol Right, %	3%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	192	128	197
LT Vol	114	0	0	2
Through Vol	0	192	0	195
RT Vol	4	0	128	0
Lane Flow Rate	127	206	138	212
Geometry Grp	2	7	7	5
Degree of Util (X)	0.187	0.289	0.166	0.277
Departure Headway (Hd)	5.292	5.039	4.335	4.703
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	712	826	763
Service Time	3.339	2.775	2.07	2.742
HCM Lane V/C Ratio	0.188	0.289	0.167	0.278
HCM Control Delay	9.6	9.8	7.9	9.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	1.2	0.6	1.1

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	117	566	9	72	806
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	3	0	3	6	2
Mvmt Flow	24	126	609	10	77	867

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1201	309	0	0	618	0
Stage 1	613	-	-	-	-	-
Stage 2	588	-	-	-	-	-
Critical Hdwy	6.84	6.96	-	-	4.22	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.33	-	-	2.26	-
Pot Cap-1 Maneuver	177	684	-	-	931	-
Stage 1	503	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	149	684	-	-	931	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	435	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	1.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	436	931	-
HCM Lane V/C Ratio	-	-	0.343	0.083	-
HCM Control Delay (s)	-	-	17.5	9.2	0.6
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	284	341	462	77	326	8	381	264	110	11	512	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.997			0.956			0.948	
Flt Protected	0.950				0.991		0.950				0.999	
Satd. Flow (prot)	3400	1792	1568	0	3420	0	3303	1774	0	0	3319	0
Flt Permitted	0.950				0.787		0.950				0.944	
Satd. Flow (perm)	3400	1792	1568	0	2716	0	3303	1774	0	0	3136	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			486		1			18			66	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	6%	3%	6%	4%	0%	6%	3%	1%	4%	3%	3%
Adj. Flow (vph)	299	359	486	81	343	8	401	278	116	12	539	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	299	359	486	0	432	0	401	394	0	0	843	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	19.0		19.0	35.0	35.0		19.0			20.0	20.0	
Total Split (%)	15.8%		15.8%	29.2%	29.2%		15.8%			16.7%	16.7%	
Maximum Green (s)	15.0		15.0	30.0	30.0		15.0			15.0	15.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	14.4	76.0	96.0		57.6		15.0	35.0			15.0	
Actuated g/C Ratio	0.12	0.63	0.80		0.48		0.12	0.29			0.12	
v/c Ratio	0.73	0.32	0.36		0.33		0.97	0.74			1.88	
Control Delay	62.3	11.0	1.0		20.3		85.7	43.8			430.9	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	62.3	11.0	1.0		20.3		85.7	43.8			430.9	
LOS	E	B	A		C		F	D			F	
Approach Delay		20.2			20.3			65.0			430.9	
Approach LOS		C			C			E			F	
90th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.8		15.0	60.2	60.2		15.0			15.0	15.0	
10th %ile Term Code	Gap		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	115	119	0		106		163	274			~504	
Queue Length 95th (ft)	165	172	18		145		m#248	m369			#635	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	425	1129	1351		1305		412	530			449	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	0.70	0.32	0.36		0.33		0.97	0.74			1.88	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	23%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.88
Intersection Signal Delay: 139.0 Intersection LOS: F
Intersection Capacity Utilization 90.2% ICU Level of Service E
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	418	36	263	385	79	49	186	307	142	204	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.974				0.850		0.970	
Flt Protected	0.950			0.950				0.990		0.950		
Satd. Flow (prot)	1641	3424	0	1641	3784	0	0	1742	1553	1736	1762	0
Flt Permitted	0.950			0.950				0.448		0.362		
Satd. Flow (perm)	1641	3424	0	1641	3784	0	0	788	1553	661	1762	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			20				327		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	4%	6%	10%	6%	2%	4%	9%	4%	4%	5%	3%
Adj. Flow (vph)	26	445	38	280	410	84	52	198	327	151	217	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	483	0	280	494	0	0	250	327	151	272	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	34.0		22.0	41.0		29.0	29.0	22.0	29.0	29.0	
Total Split (%)	12.5%	28.3%		18.3%	34.2%		24.2%	24.2%	18.3%	24.2%	24.2%	
Maximum Green (s)	9.0	28.0		16.0	35.0		22.0	22.0	16.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.2	63.0		16.0	76.4			22.0	85.0	22.0	22.0	
Actuated g/C Ratio	0.07	0.52		0.13	0.64			0.18	0.71	0.18	0.18	
v/c Ratio	0.23	0.27		1.28	0.20			1.74	0.27	1.25	0.82	
Control Delay	41.6	18.8		200.1	9.8			389.4	1.2	204.2	66.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	41.6	18.8		200.1	9.8			389.4	1.2	204.2	66.6	
LOS	D	B		F	A			F	A	F	E	
Approach Delay		20.0			78.6			169.4			115.7	
Approach LOS		C			E			F			F	
90th %ile Green (s)	8.9	63.0		16.0	70.1		22.0	22.0	16.0	22.0	22.0	
90th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
70th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
30th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
10th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
Queue Length 50th (ft)	13	144		~275	85			~287	0	~146	198	
Queue Length 95th (ft)	m20	m130		#449	115			#453	25	#283	#340	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	123	1800		218	2417			144	1195	121	330	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.21	0.27		1.28	0.20			1.74	0.27	1.25	0.82	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	29%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

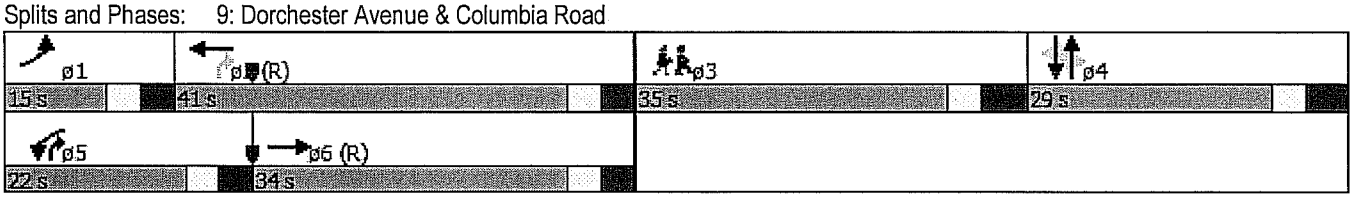
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.74
Intersection Signal Delay: 95.4 Intersection LOS: F
Intersection Capacity Utilization 75.3% ICU Level of Service D
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	37	7	17	408	429	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	9	0	5	0	4
Mvmt Flow	38	7	17	416	438	77

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	927	476	514	0	-	0
Stage 1	476	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Critical Hdwy	6.43	6.29	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.381	2.2	-	-	-
Pot Cap-1 Maneuver	297	575	1062	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	291	575	1062	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	627	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	316	-	-
HCM Lane V/C Ratio	0.016	-	0.142	-	-
HCM Control Delay (s)	8.4	0	18.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	10	0	18	0	0	0	7	381	21	50	490	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	0	8	0	0	0	14	7	4	3	5	20
Mvmt Flow	11	0	20	0	0	0	8	414	23	54	533	15

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1090	1101	540	548	0	0	437	0	0
Stage 1	649	649	-	-	-	-	-	-	-
Stage 2	441	452	-	-	-	-	-	-	-
Critical Hdwy	6.56	6.5	6.28	4.24	-	-	4.13	-	-
Critical Hdwy Stg 1	5.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.644	4	3.372	2.326	-	-	2.227	-	-
Pot Cap-1 Maneuver	224	214	530	964	-	-	1117	-	-
Stage 1	495	469	-	-	-	-	-	-	-
Stage 2	620	574	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	206	0	530	964	-	-	1117	-	-
Mov Cap-2 Maneuver	206	0	-	-	-	-	-	-	-
Stage 1	460	0	-	-	-	-	-	-	-
Stage 2	613	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0.1	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	964	-	-	339	1117	-	-
HCM Lane V/C Ratio	0.008	-	-	0.09	0.049	-	-
HCM Control Delay (s)	8.8	0	-	16.7	8.4	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	25	219	0	0	0	0	378	8	7	377	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865						0.997				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1629	0	0	0	0	0	1789	0	0	1844	0
Flt Permitted	0.950										0.994	
Satd. Flow (perm)	1770	1629	0	0	0	0	0	1789	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		228						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Adj. Flow (vph)	117	26	228	0	0	0	0	394	8	7	393	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	254	0	0	0	0	0	402	0	0	400	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.2	9.2						45.2			45.2	
Actuated g/C Ratio	0.14	0.14						0.70			0.70	
v/c Ratio	0.46	0.59						0.32			0.31	
Control Delay	31.6	11.8						4.7			4.6	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	31.6	11.8						4.7			4.6	
LOS	C	B						A			A	
Approach Delay		18.0						4.7			4.6	
Approach LOS		B						A			A	
90th %ile Green (s)	11.8	11.8						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	9.8	9.8						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.5	8.5						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						46.0		46.0	46.0	
10th %ile Term Code	Min	Min						Dwell		Dwell	Dwell	
Queue Length 50th (ft)	43	9						45			45	
Queue Length 95th (ft)	87	66						94			93	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	687	771						1256			1288	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.17	0.33						0.32			0.31	

Intersection Summary

Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.4
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.59
Intersection Signal Delay: 8.9
Intersection LOS: A
Intersection Capacity Utilization 48.6%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 66.8
70th %ile Actuated Cycle: 64.8
50th %ile Actuated Cycle: 63.5
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 64

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	72	160	191	39	9	13	35	211	18	4	3	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.970					0.988				
Flt Protected		0.950						0.992				
Satd. Flow (prot)	0	1787	1773	0	0	0	0	3378	0	0	0	0
Flt Permitted		0.384						0.840				
Satd. Flow (perm)	0	722	1773	0	0	0	0	2860	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			1					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	4%	3%	7%	9%	3%	5%	0%	14%	20%	6%
Adj. Flow (vph)	73	163	195	40	9	13	36	215	18	4	3	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	236	244	0	0	0	0	286	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations	↕					↕					↕	
Volume (vph)	104	73	19	10	30	161	107	65	149	122	107	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.952					0.931					0.984	
Flt Protected	0.984					0.995					0.969	
Satd. Flow (prot)	3205	0	0	0	0	2999	0	0	0	0	3261	0
Flt Permitted	0.665					0.869					0.969	
Satd. Flow (perm)	2166	0	0	0	0	2619	0	0	0	0	3261	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	4					16					1	
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	10%	3%	33%	13%	6%	8%	27%	9%	3%	5%	3%
Adj. Flow (vph)	106	74	19	10	31	164	109	66	152	124	109	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	293	0	0	0	0	380	0	0	0	0	431	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	9	4	54	161	158	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.932		
Flt Protected				0.993		
Satd. Flow (prot)	0	0	0	3190	0	0
Flt Permitted				0.993		
Satd. Flow (perm)	0	0	0	3190	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				4		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	20%	4%	5%	5%	0%
Adj. Flow (vph)	9	4	55	164	161	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	408	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		31.1	35.1					18.1				
Actuated g/C Ratio		0.21	0.23					0.12				
v/c Ratio		1.04	0.59					0.83				
Control Delay		121.3	57.2					84.0				
Queue Delay		0.0	0.0					0.0				
Total Delay		121.3	57.2					84.0				
LOS		F	E					F				
Approach Delay			88.7					84.0				
Approach LOS			F					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			37.9	37.9
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			41.0	41.0
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			18.3	18.3	18.3			44.9	44.9
30th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			15.1	15.1	15.1			55.0	55.0
10th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
Queue Length 50th (ft)		~208	211					144				
Queue Length 95th (ft)		#318	306					#211				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		227	415					363				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.04	0.59					0.79				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	43.0					43.0					25.0	
Actuated g/C Ratio	0.29					0.29					0.17	
v/c Ratio	0.47					0.50					0.98dl	
Control Delay	48.2					46.8					70.8	
Queue Delay	0.0					0.0					0.0	
Total Delay	48.2					46.8					70.8	
LOS	D					D					E	
Approach Delay	48.2					46.8					70.8	
Approach LOS	D					D					E	
90th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	37.9			37.9	37.9	37.9			28.1	28.1	28.1	
70th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
50th %ile Green (s)	41.0			41.0	41.0	41.0			25.0	25.0	25.0	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	44.9			44.9	44.9	44.9			22.6	22.6	22.6	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	55.0			55.0	55.0	55.0			19.1	19.1	19.1	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	125					160					215	
Queue Length 95th (ft)	184					225					267	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	623					761					653	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.47					0.50					0.66	

Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				22.0		
Actuated g/C Ratio				0.15		
v/c Ratio				0.87		
Control Delay				80.6		
Queue Delay				0.0		
Total Delay				80.6		
LOS				F		
Approach Delay				80.6		
Approach LOS				F		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		23.0	23.0	23.0		
50th %ile Term Code		Max	Max	Max		
30th %ile Green (s)		22.2	22.2	22.2		
30th %ile Term Code		Gap	Gap	Gap		
10th %ile Green (s)		18.8	18.8	18.8		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				204		
Queue Length 95th (ft)				#284		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				492		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.83		

Intersection Summary

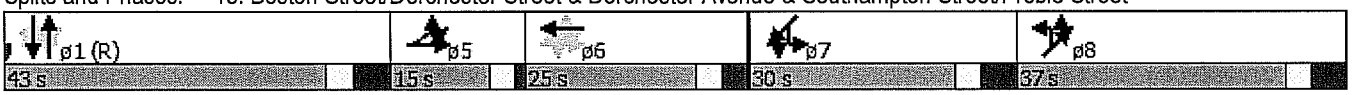
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 71.1 Intersection LOS: E
Intersection Capacity Utilization 97.1% ICU Level of Service F
Analysis Period (min) 15

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	173	493	0	0	547	261	229	18	75	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.998					0.950	0.959				
Satd. Flow (prot)	1504	1939	0	0	3438	1711	1796	1653	1759	0	0	1808
Flt Permitted	0.950	0.998					0.950	0.959				
Satd. Flow (perm)	1504	1939	0	0	3438	1711	1796	1653	1759	0	0	1808
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						100			91			183
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	14%	5%	0%	0%	5%	7%	5%	3%	1%	0%	0%	3%
Adj. Flow (vph)	180	514	0	0	570	272	239	19	78	0	0	15
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	162	532	0	0	570	272	129	129	78	0	0	15
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

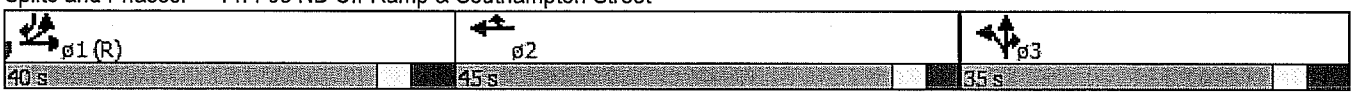
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	40.0	40.0			45.0	45.0	35.0	35.0	35.0			40.0
Total Split (%)	33.3%	33.3%			37.5%	37.5%	29.2%	29.2%	29.2%			33.3%
Maximum Green (s)	33.0	33.0			39.0	39.0	28.0	28.0	28.0			33.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	47.2	47.2			39.0	39.0	13.8	13.8	13.8			47.2
Actuated g/C Ratio	0.39	0.39			0.32	0.32	0.12	0.12	0.12			0.39
v/c Ratio	0.27	0.70			0.51	0.44	0.63	0.68	0.28			0.02
Control Delay	27.6	37.4			34.7	22.1	63.3	68.0	9.2			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	27.6	37.4			34.7	22.1	63.3	68.0	9.2			0.1
LOS	C	D			C	C	E	E	A			A
Approach Delay		35.1			30.7			52.5				
Approach LOS		D			C			D				
90th %ile Green (s)	41.4	41.4			39.0	39.0	19.6	19.6	19.6			41.4
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
70th %ile Green (s)	44.8	44.8			39.0	39.0	16.2	16.2	16.2			44.8
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	47.2	47.2			39.0	39.0	13.8	13.8	13.8			47.2
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	49.6	49.6			39.0	39.0	11.4	11.4	11.4			49.6
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	53.0	53.0			39.0	39.0	8.0	8.0	8.0			53.0
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Min	Min	Min			Coord
Queue Length 50th (ft)	88	357			187	102	102	102	0			0
Queue Length 95th (ft)	157	538			244	181	162	164	34			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	591	762			1117	623	419	385	480			822
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.27	0.70			0.51	0.44	0.31	0.34	0.16			0.02

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 36.0
Intersection LOS: D
Intersection Capacity Utilization 65.6%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	79	0	0	186	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	4	6
Mvmt Flow	0	88	0	0	207	123

Major/Minor	Minor2		Major2	
Conflicting Flow All	207	207	-	0
Stage 1	207	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.21	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-
Pot Cap-1 Maneuver	755	836	-	-
Stage 1	800	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	755	836	-	-
Mov Cap-2 Maneuver	755	-	-	-
Stage 1	800	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	9.8	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	836	-	-
HCM Lane V/C Ratio	0.105	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	100	0	0	816	0	0	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3471	0	0	2787
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3471	0	0	2787
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	4%	0%	0%	2%
Adj. Flow (vph)	0	106	0	0	868	0	0	553
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	106	0	0	868	0	0	553
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

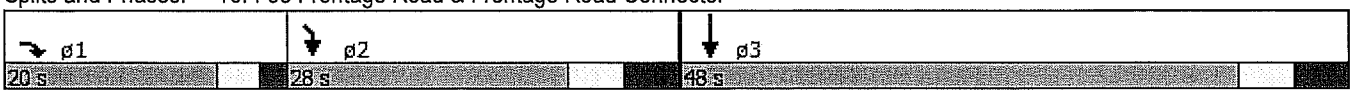
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.09			0.47			0.23
v/c Ratio		0.37			0.54			0.85
Control Delay		6.8			18.7			47.1
Queue Delay		0.0			0.0			0.0
Total Delay		6.8			18.7			47.1
LOS		A			B			D
Approach Delay					18.7			
Approach LOS					B			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			182			171
Queue Length 95th (ft)		24			238			#272
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		405			1613			647
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.26			0.54			0.85

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 86.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 28.2 Intersection LOS: C

Intersection Capacity Utilization 64.9%
ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 76
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: I-93 Frontage Road & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Lane Configurations												
Volume (vph)	480	457	182	19	255	508	90	0	179	8	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	16	12	12	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	
Frt	0.914							0.850				
Flt Protected						0.983	0.950					
Satd. Flow (prot)	3195	0	0	0	0	3396	1752	1527	0	0	1900	
Flt Permitted						0.511	0.757					
Satd. Flow (perm)	3195	0	0	0	0	1765	1396	1527	0	0	1900	
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)	24							158				
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	494					738		733			242	
Travel Time (s)	11.2					16.8		16.7			5.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	5%	2%	2%	11%	3%	5%	3%	0%	6%	0%	0%	
Adj. Flow (vph)	490	466	186	19	260	518	92	0	183	8	1	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1142	0	0	0	0	797	92	191	0	0	1	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Left	Right	Right	Left	
Median Width(ft)	0					0		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	0.85	1.00	1.00	
Turning Speed (mph)		9	9	15	15		15		9	9		
Number of Detectors	2			1	1	2	1	2			2	
Detector Template	Thru			Left	Left	Thru	Left	Thru			Thru	
Leading Detector (ft)	100			20	20	100	20	100			100	
Trailing Detector (ft)	0			0	0	0	0	0			0	
Detector 1 Position(ft)	0			0	0	0	0	0			0	
Detector 1 Size(ft)	6			20	20	6	20	6			6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)	94					94		94			94	
Detector 2 Size(ft)	6					6		6			6	
Detector 2 Type	Cl+Ex					Cl+Ex		Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0		0.0			0.0	
Turn Type	NA			pm+pt	pm+pt	NA	Perm	NA			NA	
Protected Phases	1			4	4	1 4		3			3	2
Permitted Phases				1 4	1 4		3					
Detector Phase	1			4	4	1 4	3	3			3	
Switch Phase												

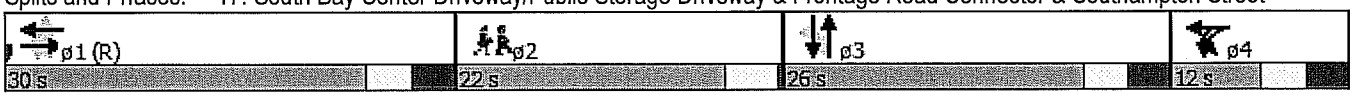
Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Minimum Initial (s)	10.0			5.0	5.0		5.0	5.0			5.0	4.0
Minimum Split (s)	16.0			11.0	11.0		11.0	11.0			11.0	22.0
Total Split (s)	30.0			12.0	12.0		26.0	26.0			26.0	22.0
Total Split (%)	33.3%			13.3%	13.3%		28.9%	28.9%			28.9%	24%
Maximum Green (s)	24.0			6.0	6.0		20.0	20.0			20.0	18.0
Yellow Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	3.5
All-Red Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	0.5
Lost Time Adjust (s)	0.0						0.0	0.0			0.0	
Total Lost Time (s)	6.0						6.0	6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0		2.0	2.0			2.0	2.0
Recall Mode	C-Max			None	None		None	None			None	None
Walk Time (s)												5.0
Flash Dont Walk (s)												13.0
Pedestrian Calls (#/hr)												0
Act Effct Green (s)	55.7					61.7	10.3	10.3			10.3	
Actuated g/C Ratio	0.62					0.69	0.11	0.11			0.11	
v/c Ratio	0.58					0.60	0.58	0.61			0.00	
Control Delay	11.9					7.6	51.2	17.9			32.0	
Queue Delay	0.0					0.0	0.0	0.0			0.0	
Total Delay	11.9					7.6	51.2	17.9			32.0	
LOS	B					A	D	B			C	
Approach Delay	11.9					7.6		28.7			32.0	
Approach LOS	B					A		C			C	
90th %ile Green (s)	50.7			6.0	6.0		15.3	15.3			15.3	0.0
90th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
70th %ile Green (s)	53.7			6.0	6.0		12.3	12.3			12.3	0.0
70th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
50th %ile Green (s)	55.7			6.0	6.0		10.3	10.3			10.3	0.0
50th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
30th %ile Green (s)	57.7			6.0	6.0		8.3	8.3			8.3	0.0
30th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
10th %ile Green (s)	60.7			6.0	6.0		5.3	5.3			5.3	0.0
10th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
Queue Length 50th (ft)	178					62	50	17			1	
Queue Length 95th (ft)	276					107	94	78			5	
Internal Link Dist (ft)	414					658		653			162	
Turn Bay Length (ft)												
Base Capacity (vph)	1986					1318	310	462			422	
Starvation Cap Reductn	0					0	0	0			0	
Spillback Cap Reductn	0					0	0	0			0	
Storage Cap Reductn	0					0	0	0			0	
Reduced v/c Ratio	0.58					0.60	0.30	0.41			0.00	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.61
Intersection Signal Delay: 12.5 Intersection LOS: B
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	77	0	0	0	69	696
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.996
Satd. Flow (prot)	3662	0	0	0	0	3878
Flt Permitted	0.950					0.996
Satd. Flow (perm)	3662	0	0	0	0	3878
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	0	0	0	75	757
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	0	0	0	0	832
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	35.0				55.0	55.0
Total Split (%)	38.9%				61.1%	61.1%
Maximum Green (s)	30.0				50.0	50.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.21					0.26
Control Delay	58.5					2.7
Queue Delay	0.0					0.0
Total Delay	58.5					2.7
LOS	E					A
Approach Delay	58.5					2.7
Approach LOS	E					A
90th %ile Green (s)	10.0				70.0	70.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	25					54
Queue Length 95th (ft)	50					71
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	1220					3188
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.07					0.26

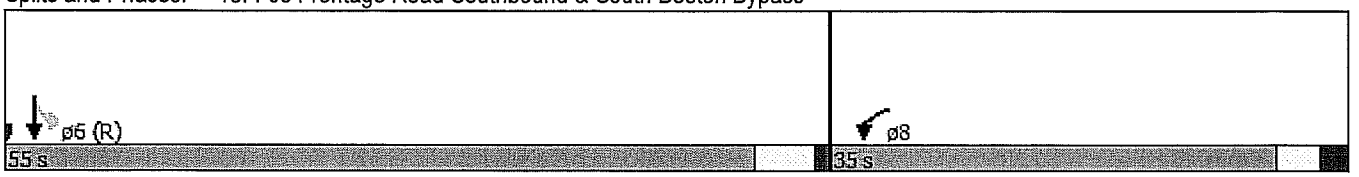
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.26

Intersection Signal Delay: 7.8
Intersection Capacity Utilization 37.9%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	26	0	0	56	116	21	1244	165	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.899			0.983				
Flt Protected		0.970						0.999				
Satd. Flow (prot)	0	3891	0	0	3288	0	0	5327	0	0	0	0
Flt Permitted		0.708						0.999				
Satd. Flow (perm)	0	2840	0	0	3288	0	0	5327	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					53			46				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	28	0	0	61	126	23	1352	179	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	75	0	0	187	0	0	1554	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.12			0.24			0.47				
Control Delay		34.2			21.4			9.3				
Queue Delay		0.0			0.0			0.0				
Total Delay		34.2			21.4			9.3				
LOS		C			C			A				
Approach Delay		34.2			21.4			9.3				
Approach LOS		C			C			A				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		19			32			150				
Queue Length 95th (ft)		41			61			182				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		694			843			3331				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.11			0.22			0.47				

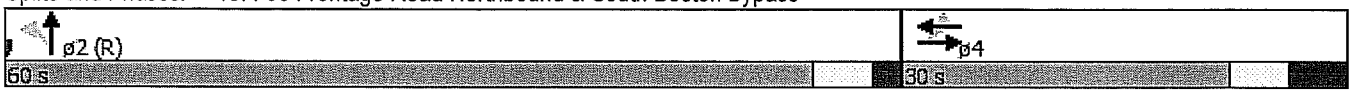
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47

Intersection Signal Delay: 11.6
Intersection Capacity Utilization 76.6%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service D

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	945	312	213	957	506	334	618	397	421	512	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.996	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3429	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			90			44			405		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	3%	3%	11%	3%	3%	2%	3%	8%	4%	5%	0%
Adj. Flow (vph)	0	964	318	217	977	516	341	631	405	430	522	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	964	318	217	977	516	341	631	405	430	538	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		35.0		20.0	55.0		20.0	35.0		20.0	35.0	
Total Split (%)		31.8%		18.2%	50.0%		18.2%	31.8%		18.2%	31.8%	
Maximum Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		29.0	48.4	11.6	46.6	66.6	13.4	31.4	110.0	14.0	32.0	
Actuated g/C Ratio		0.26	0.44	0.11	0.42	0.61	0.12	0.29	1.00	0.13	0.29	
v/c Ratio		1.04	0.43	0.65	0.66	0.53	0.82	0.63	0.27	1.00	0.54	
Control Delay		81.5	16.7	56.7	27.6	13.6	63.3	38.0	0.4	93.2	35.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		81.5	16.7	56.7	27.6	13.6	63.3	38.0	0.4	93.2	35.6	
LOS		F	B	E	C	B	E	D	A	F	D	
Approach Delay		65.4			27.1			33.2			61.2	
Approach LOS		E			C			C			E	
90th %ile Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
90th %ile Term Code		Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)		29.0		13.4	48.4		14.0	29.6		14.0	29.6	
70th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		29.0		11.9	46.9		14.0	31.1		14.0	31.1	
50th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		29.0		10.4	45.4		13.8	32.6		14.0	32.8	
30th %ile Term Code		Max		Gap	Hold		Gap	Coord		Max	Coord	
10th %ile Green (s)		29.0		8.2	43.2		11.3	34.8		14.0	37.5	
10th %ile Term Code		Max		Gap	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		~388	105	76	282	179	121	205	0	~159	168	
Queue Length 95th (ft)		#517	179	114	341	253	#186	274	0	#264	231	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		924	748	401	1561	933	436	1001	1495	428	999	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.04	0.43	0.54	0.63	0.55	0.78	0.63	0.27	1.00	0.54	

Intersection Summary

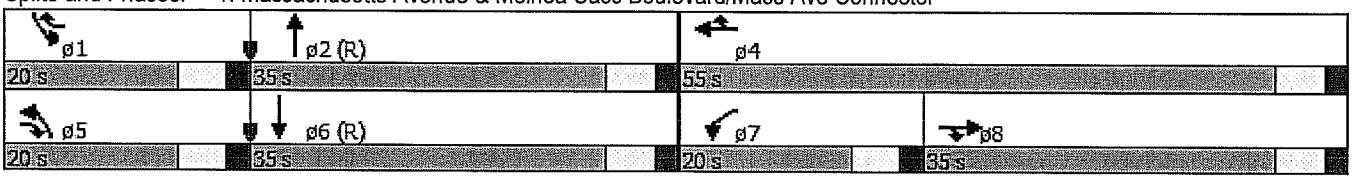
Area Type: Other

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 100 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.1 Intersection LOS: D
Intersection Capacity Utilization 81.9% ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	0	124	0	0	0	95	313	0	0	467	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921										0.850
Flt Protected		0.980					0.950					
Satd. Flow (prot)	0	1670	0	0	0	0	1752	1845	0	0	1827	1583
Flt Permitted		0.980					0.416					
Satd. Flow (perm)	0	1670	0	0	0	0	767	1845	0	0	1827	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	1%	0%	0%	0%	3%	3%	0%	0%	4%	2%
Adj. Flow (vph)	92	0	129	0	0	0	99	326	0	0	486	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	221	0	0	0	0	99	326	0	0	486	51
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA			NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	28.0	28.0					12.0			29.0	29.0	29.0
Total Split (%)	31.1%	31.1%					13.3%			32.2%	32.2%	32.2%
Maximum Green (s)	24.0	24.0					8.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		13.0					65.0	69.0			57.0	57.0
Actuated g/C Ratio		0.14					0.72	0.77			0.63	0.63
v/c Ratio		0.66					0.15	0.23			0.42	0.05
Control Delay		27.9					2.7	2.6			10.3	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		27.9					2.7	2.6			10.3	0.1
LOS		C					A	A			B	A
Approach Delay		27.9						2.6			9.3	
Approach LOS		C						A			A	
90th %ile Green (s)	18.6	18.6					8.0			51.4	51.4	51.4
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	14.6	14.6					8.0			55.4	55.4	55.4
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	11.8	11.8					8.0			58.2	58.2	58.2
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		60					7	21			119	0
Queue Length 95th (ft)		125					18	45			226	1
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		525					641	1414			1157	1042
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.42					0.15	0.23			0.42	0.05

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.66
Intersection Signal Delay: 10.4
Intersection LOS: B
Intersection Capacity Utilization 63.7%
ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	63	245	45	53	28	168	407	314	29	562	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.881			0.948				0.850		0.989	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1770	1670	0	1752	1880	0	1947	2029	1463	0	3683	0
Flt Permitted	0.950			0.950			0.352				0.919	
Satd. Flow (perm)	1770	1670	0	1752	1880	0	721	2029	1463	0	3392	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		200			26				349		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	0%	3%	3%	10%	2%	3%	3%	12%	3%	0%
Adj. Flow (vph)	29	70	272	50	59	31	187	452	349	32	624	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	342	0	50	90	0	187	452	349	0	709	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		23.0	23.0		38.0	38.0	23.0	38.0	38.0	
Total Split (%)	27.8%	27.8%		25.6%	25.6%		42.2%	42.2%	25.6%	42.2%	42.2%	
Maximum Green (s)	20.0	20.0		18.0	18.0		32.0	32.0	18.0	32.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	13.4	13.4		9.2	9.2		51.4	51.4	66.6		51.4	
Actuated g/C Ratio	0.15	0.15		0.10	0.10		0.57	0.57	0.74		0.57	
v/c Ratio	0.11	0.82		0.28	0.42		0.45	0.39	0.30		0.37	
Control Delay	31.3	30.9		40.8	33.6		18.0	13.3	1.3		8.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	31.3	30.9		40.8	33.6		18.0	13.3	1.3		8.6	
LOS	C	C		D	C		B	B	A		A	
Approach Delay		30.9			36.2			9.9			8.6	
Approach LOS		C			D			A			A	
90th %ile Green (s)	20.0	20.0		12.1	12.1		41.9	41.9	12.1	41.9	41.9	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	16.7	16.7		9.9	9.9		47.4	47.4	9.9	47.4	47.4	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	13.0	13.0		8.0	8.0		53.0	53.0	8.0	53.0	53.0	
50th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
30th %ile Green (s)	9.3	9.3		8.0	8.0		56.7	56.7	8.0	56.7	56.7	
30th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		58.0	58.0	8.0	58.0	58.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	15	78		27	35		54	125	0		66	
Queue Length 95th (ft)	36	164		60	78		147	253	26		97	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	393	526		350	396		411	1158	1173		1941	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.07	0.65		0.14	0.23		0.45	0.39	0.30		0.37	

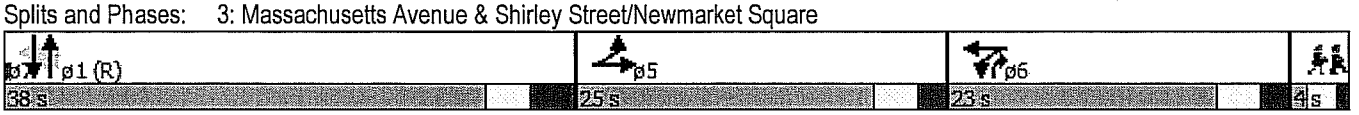
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 14.7 Intersection LOS: B
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	322	565	76	444	406
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	5	1	3
Mvmt Flow	15	350	614	83	483	441

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1841	348	0	0	697	0
Stage 1	655	-	-	-	-	-
Stage 2	1186	-	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	68	648	-	-	902	-
Stage 1	484	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	20	648	-	-	902	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	484	-	-	-	-	-
Stage 2	74	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	7.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	62	648	902	-
HCM Lane V/C Ratio	-	-	0.245	0.54	0.535	-
HCM Control Delay (s)	-	-	81	16.9	13.5	1.5
HCM Lane LOS	-	-	F	C	B	A
HCM 95th %tile Q(veh)	-	-	0.9	3.2	3.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	0	343	2	208	2	429	457	88	329	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt					0.851			0.923			0.999	
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	3429	0	1770	1578	0	1203	3703	0	1787	1861	0
Flt Permitted		0.833		0.950			0.472			0.205		
Satd. Flow (perm)	0	3007	0	1770	1578	0	598	3703	0	386	1861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					219			203				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	50%	2%	50%	3%	1%	1%	2%	0%
Adj. Flow (vph)	3	0	0	361	2	219	2	452	481	93	346	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	361	221	0	2	933	0	93	349	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		28.0		16.0	20.5		26.7	26.7		26.7	26.7	
Actuated g/C Ratio		0.47		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		0.01		0.75	0.32		0.01	0.52		0.53	0.41	
Control Delay		9.7		35.5	3.0		17.5	13.2		33.6	17.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		9.7		35.5	3.0		17.5	13.2		33.6	17.3	
LOS		A		D	A		B	B		C	B	
Approach Delay		9.7			23.1			13.2			20.7	
Approach LOS		A			C			B			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		0		91	0		0	63		16	57	
Queue Length 95th (ft)		3		#453	26		6	300		#153	291	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		852		481	1236		271	1787		175	842	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.00		0.75	0.18		0.01	0.52		0.53	0.41	

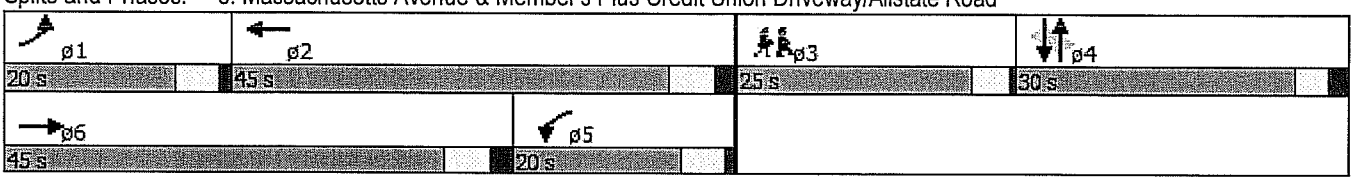
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 59
Natural Cycle: 110
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 70.5% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 50
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	302	161	0	0	312	0	144	5
Peak Hour Factor	0.92	0.96	0.96	0.92	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	1	3	2	0	1	2	1	0
Mvmt Flow	0	315	168	0	0	325	0	150	5
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	11.1	12.1	10.9
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	97%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	3%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	149	302	161	312
LT Vol	144	0	0	0
Through Vol	0	302	0	312
RT Vol	5	0	161	0
Lane Flow Rate	155	315	168	325
Geometry Grp	2	7	7	5
Degree of Util (X)	0.251	0.46	0.214	0.45
Departure Headway (Hd)	5.812	5.268	4.597	4.981
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	680	773	718
Service Time	3.907	3.039	2.367	3.053
HCM Lane V/C Ratio	0.253	0.463	0.217	0.453
HCM Control Delay	10.9	12.5	8.6	12.1
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1	2.4	0.8	2.3

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	113	777	14	48	621
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	116	801	14	49	640

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1227	408	0	0	815	0
Stage 1	808	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	171	593	-	-	808	-
Stage 1	399	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	155	593	-	-	808	-
Mov Cap-2 Maneuver	155	-	-	-	-	-
Stage 1	399	-	-	-	-	-
Stage 2	573	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	519	808	-
HCM Lane V/C Ratio	-	-	0.236	0.061	-
HCM Control Delay (s)	-	-	14.1	9.7	0.4
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	406	294	426	92	266	22	406	388	109	15	327	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.991			0.967			0.931	
Flt Protected	0.950				0.988		0.950				0.999	
Satd. Flow (prot)	3467	1845	1568	0	3414	0	3433	1774	0	0	3271	0
Flt Permitted	0.950				0.776		0.950				0.708	
Satd. Flow (perm)	3467	1845	1568	0	2682	0	3433	1774	0	0	2318	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			448		5			14			176	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	3%	3%	3%	4%	0%	2%	4%	2%	7%	3%	2%
Adj. Flow (vph)	427	309	448	97	280	23	427	408	115	16	344	306
Shared Lane Traffic (%)												
Lane Group Flow (vph)	427	309	448	0	400	0	427	523	0	0	666	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		16.0	24.0	24.0		16.0			18.0	18.0	
Total Split (%)	15.0%		16.0%	24.0%	24.0%		16.0%			18.0%	18.0%	
Maximum Green (s)	11.0		12.0	19.0	19.0		12.0			13.0	13.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	78.0		46.0		12.0	30.0			13.0	
Actuated g/C Ratio	0.11	0.61	0.78		0.46		0.12	0.30			0.13	
v/c Ratio	1.12	0.27	0.34		0.32		1.04	0.96			1.47	
Control Delay	124.8	9.9	1.0		17.8		93.2	61.0			247.3	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	124.8	9.9	1.0		17.8		93.2	61.0			247.3	
LOS	F	A	A		B		F	E			F	
Approach Delay		48.0			17.8			75.5			247.3	
Approach LOS		D			B			E			F	
90th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~162	85	0		81		~128	326			~255	
Queue Length 95th (ft)	#259	130	18		116		m#224	m#508			#372	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	381	1125	1321		1236		411	542			454	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.12	0.27	0.34		0.32		1.04	0.96			1.47	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

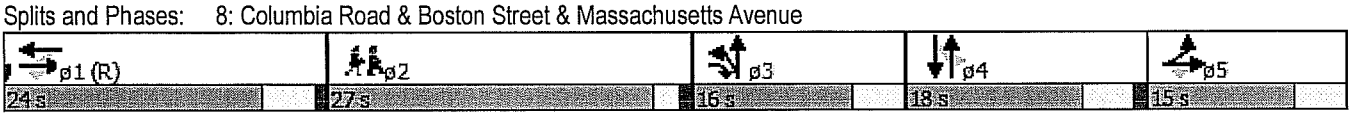
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.47
Intersection Signal Delay: 93.9 Intersection LOS: F
Intersection Capacity Utilization 89.7% ICU Level of Service E
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	467	44	224	505	134	62	196	366	115	145	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.968				0.850		0.963	
Flt Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1752	3418	0	1703	3891	0	0	1813	1583	1752	1726	0
Flt Permitted	0.950			0.950				0.655		0.290		
Satd. Flow (perm)	1752	3418	0	1703	3891	0	0	1202	1583	535	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			30				389		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	4%	7%	6%	2%	1%	2%	4%	2%	3%	6%	6%
Adj. Flow (vph)	54	497	47	238	537	143	66	209	389	122	154	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	544	0	238	680	0	0	275	389	122	204	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	21.0		21.0	27.0		23.0	23.0	21.0	23.0	23.0	
Total Split (%)	15.0%	21.0%		21.0%	27.0%		23.0%	23.0%	21.0%	23.0%	23.0%	
Maximum Green (s)	9.0	15.0		15.0	21.0		16.0	16.0	15.0	16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.4	50.1		14.9	59.4			16.0	71.0	16.0	16.0	
Actuated g/C Ratio	0.08	0.50		0.15	0.59			0.16	0.71	0.16	0.16	
v/c Ratio	0.37	0.32		0.94	0.29			1.43	0.31	1.44	0.71	
Control Delay	48.1	14.9		86.0	10.5			255.2	1.2	284.3	51.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	48.1	14.9		86.0	10.5			255.2	1.2	284.3	51.9	
LOS	D	B		F	B			F	A	F	D	
Approach Delay		17.9			30.1			106.4			138.9	
Approach LOS		B			C			F			F	
90th %ile Green (s)	9.0	50.0		15.0	56.0		16.0	16.0	15.0	16.0	16.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.8	50.0		15.0	56.2		16.0	16.0	15.0	16.0	16.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	50.3		14.7	71.0		16.0	16.0	14.7	16.0	16.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	29	117		152	105			~239	0	~106	116	
Queue Length 95th (ft)	m46	m123		#298	143			#399	24	#220	#215	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	157	1715		255	2324			192	1236	85	287	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.34	0.32		0.93	0.29			1.43	0.31	1.44	0.71	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	35%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

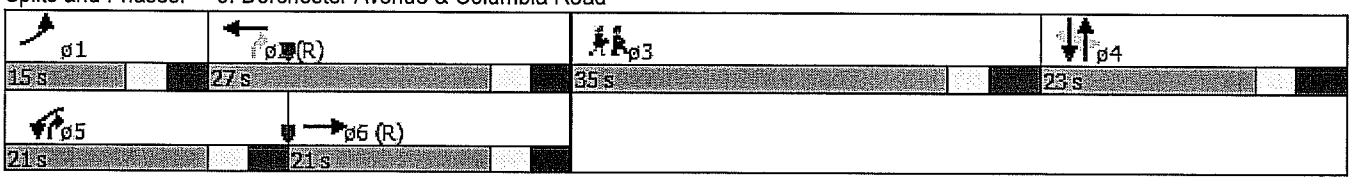
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 31 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.44
Intersection Signal Delay: 61.5 Intersection LOS: E
Intersection Capacity Utilization 72.6% ICU Level of Service C
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	19	8	13	355	380	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	8	13	362	388	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	804	415	443	0	-	0
Stage 1	415	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	637	1117	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	637	1117	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	666	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.6	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1117	-	401	-	-
HCM Lane V/C Ratio	0.012	-	0.069	-	-
HCM Control Delay (s)	8.3	0	14.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	1	16	0	0	0	36	319	28	38	425	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	7	0	0	0	0	0	0	3	2	0	4	1
Mvmt Flow	6	1	17	0	0	0	38	332	29	40	443	41

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	964	978	463	483	0	0	361	0	0
Stage 1	542	542	-	-	-	-	-	-	-
Stage 2	422	436	-	-	-	-	-	-	-
Critical Hdwy	6.47	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.47	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.47	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	277	252	603	1090	-	-	1209	-	-
Stage 1	573	523	-	-	-	-	-	-	-
Stage 2	651	583	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	253	0	603	1090	-	-	1209	-	-
Mov Cap-2 Maneuver	253	0	-	-	-	-	-	-	-
Stage 1	547	0	-	-	-	-	-	-	-
Stage 2	622	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0.8	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1090	-	-	438	1209	-	-
HCM Lane V/C Ratio	0.034	-	-	0.055	0.033	-	-
HCM Control Delay (s)	8.4	0	-	13.7	8.1	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	9	182	0	0	0	0	272	11	8	180	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.857						0.995				
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1752	1628	0	0	0	0	0	1837	0	0	1843	0
Flt Permitted	0.950										0.987	
Satd. Flow (perm)	1752	1628	0	0	0	0	0	1837	0	0	1823	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		202						3				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%
Adj. Flow (vph)	143	10	202	0	0	0	0	302	12	9	200	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	212	0	0	0	0	0	314	0	0	209	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	25.0	25.0						45.0		45.0	45.0	
Total Split (%)	27.5%	27.5%						49.5%		49.5%	49.5%	
Maximum Green (s)	20.0	20.0						40.0		40.0	40.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.6	9.6						40.8			40.8	
Actuated g/C Ratio	0.16	0.16						0.68			0.68	
v/c Ratio	0.51	0.49						0.25			0.17	
Control Delay	29.8	8.8						4.8			4.4	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	29.8	8.8						4.8			4.4	
LOS	C	A						A			A	
Approach Delay		17.3						4.8			4.4	
Approach LOS		B						A			A	
90th %ile Green (s)	12.7	12.7						40.0		40.0	40.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	10.5	10.5						40.0		40.0	40.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	9.1	9.1						40.0		40.0	40.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						40.0		40.0	40.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						43.7		43.7	43.7	
10th %ile Term Code	Min	Min						Dwell		Dwell	Dwell	
Queue Length 50th (ft)	48	3						34			22	
Queue Length 95th (ft)	95	51						75			50	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	580	674						1240			1230	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.25	0.31						0.25			0.17	

Intersection Summary

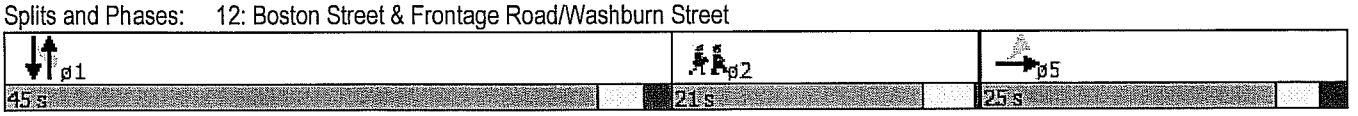
Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 60.4
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 9.7
Intersection LOS: A
Intersection Capacity Utilization 36.7%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 62.7
70th %ile Actuated Cycle: 60.5
50th %ile Actuated Cycle: 59.1
30th %ile Actuated Cycle: 58
10th %ile Actuated Cycle: 61.7

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	70	137	156	25	13	5	34	272	11	2	6	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.971					0.994				
Flt Protected		0.950						0.994				
Satd. Flow (prot)	0	1770	1822	0	0	0	0	3086	0	0	0	0
Flt Permitted		0.315						0.876				
Satd. Flow (perm)	0	587	1822	0	0	0	0	2720	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			2									
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	1%	2%	3%	8%	0%	18%	10%	0%	0%	4%
Adj. Flow (vph)	72	141	161	26	13	5	35	280	11	2	6	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	213	200	0	0	0	0	333	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	112	64	26	14	72	57	55	68	147	113	112	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.962					0.930					0.985	
Flt Protected	0.979					0.984					0.970	
Satd. Flow (prot)	3281	0	0	0	0	2574	0	0	0	0	3356	0
Flt Permitted	0.692					0.671					0.970	
Satd. Flow (perm)	2319	0	0	0	0	1755	0	0	0	0	3356	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	5					30					1	
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	4%	4%	25%	72%	9%	9%	15%	4%	2%	3%	0%
Adj. Flow (vph)	115	66	27	14	74	59	57	70	152	116	115	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	370	0	0	0	0	274	0	0	0	0	426	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	4	6	22	87	218	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.899		
Flt Protected				0.996		
Satd. Flow (prot)	0	0	0	3119	0	0
Flt Permitted				0.996		
Satd. Flow (perm)	0	0	0	3119	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				3		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	7%	2%	3%	14%
Adj. Flow (vph)	4	6	23	90	225	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	363	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		32.0	36.0					19.0				
Actuated g/C Ratio		0.21	0.24					0.13				
v/c Ratio		1.01	0.46					0.97				
Control Delay		115.9	52.1					105.3				
Queue Delay		0.0	0.0					0.0				
Total Delay		115.9	52.1					105.3				
LOS		F	D					F				
Approach Delay			85.0					105.3				
Approach LOS			F					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			38.7	38.7
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			42.3	42.3
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			46.9	46.9
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			53.6	53.6
10th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
Queue Length 50th (ft)		~183	167					173				
Queue Length 95th (ft)		#304	250					#277				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		211	438					344				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.01	0.46					0.97				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	43.5					43.5					24.4	
Actuated g/C Ratio	0.29					0.29					0.16	
v/c Ratio	0.55					0.52					0.94dl	
Control Delay	49.5					45.1					70.2	
Queue Delay	0.0					0.0					0.0	
Total Delay	49.5					45.1					70.2	
LOS	D					D					E	
Approach Delay	49.5					45.1					70.2	
Approach LOS	D					D					E	
90th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	38.7			38.7	38.7	38.7			27.3	27.3	27.3	
70th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
50th %ile Green (s)	42.3			42.3	42.3	42.3			24.2	24.2	24.2	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	46.9			46.9	46.9	46.9			21.9	21.9	21.9	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	53.6			53.6	53.6	53.6			18.5	18.5	18.5	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	161					106					213	
Queue Length 95th (ft)	232					166					263	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	676					530					672	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.55					0.52					0.63	

Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				21.1		
Actuated g/C Ratio				0.14		
v/c Ratio				1.08dr		
Control Delay				77.8		
Queue Delay				0.0		
Total Delay				77.8		
LOS				E		
Approach Delay				77.8		
Approach LOS				E		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		22.5	22.5	22.5		
50th %ile Term Code		Gap	Gap	Gap		
30th %ile Green (s)		20.2	20.2	20.2		
30th %ile Term Code		Gap	Gap	Gap		
10th %ile Green (s)		16.9	16.9	16.9		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				181		
Queue Length 95th (ft)				240		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				480		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.76		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 73.0 Intersection LOS: E
Intersection Capacity Utilization 94.7% ICU Level of Service F
Analysis Period (min) 15

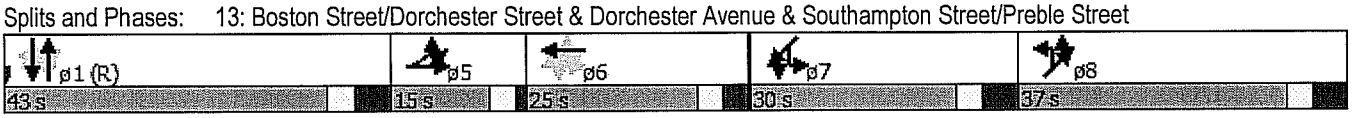
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	204	386	0	0	627	314	349	27	80	0	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.997					0.950	0.959				
Satd. Flow (prot)	1573	1974	0	0	3539	1777	1868	1704	1692	0	0	1863
Flt Permitted	0.950	0.997					0.950	0.959				
Satd. Flow (perm)	1573	1974	0	0	3539	1777	1868	1704	1692	0	0	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						150			136			136
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	3%	0%	0%	2%	3%	1%	5%	5%	0%	0%	0%
Adj. Flow (vph)	227	429	0	0	697	349	388	30	89	0	0	12
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	204	452	0	0	697	349	210	208	89	0	0	12
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

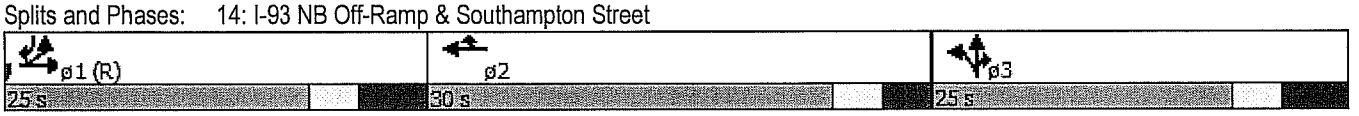
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	25.0	25.0			30.0	30.0	25.0	25.0	25.0			25.0
Total Split (%)	31.3%	31.3%			37.5%	37.5%	31.3%	31.3%	31.3%			31.3%
Maximum Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	22.1	22.1			24.0	24.0	13.9	13.9	13.9			22.1
Actuated g/C Ratio	0.28	0.28			0.30	0.30	0.17	0.17	0.17			0.28
v/c Ratio	0.47	0.83			0.66	0.55	0.65	0.71	0.22			0.02
Control Delay	30.2	43.4			27.9	16.7	39.8	43.8	3.1			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	30.2	43.4			27.9	16.7	39.8	43.8	3.1			0.1
LOS	C	D			C	B	D	D	A			A
Approach Delay		39.3			24.2			35.0				
Approach LOS		D			C			D				
90th %ile Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	18.8	18.8			24.0	24.0	17.2	17.2	17.2			18.8
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	21.9	21.9			24.0	24.0	14.1	14.1	14.1			21.9
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	24.3	24.3			24.0	24.0	11.7	11.7	11.7			24.3
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	27.7	27.7			24.0	24.0	8.3	8.3	8.3			27.7
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	96	245			158	79	104	104	0			0
Queue Length 95th (ft)	m151	m#397			216	161	166	167	15			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	435	546			1061	638	420	383	486			613
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.47	0.83			0.66	0.55	0.50	0.54	0.18			0.02

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Offset: 5 (6%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	138	0	0	257	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	0	145	0	0	271	264

Major/Minor	Minor2		Major2	
Conflicting Flow All	271	271	-	0
Stage 1	271	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.2	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-
Pot Cap-1 Maneuver	686	773	-	-
Stage 1	739	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	686	773	-	-
Mov Cap-2 Maneuver	686	-	-	-
Stage 1	739	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	10.7	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	773	-	-
HCM Lane V/C Ratio	0.188	-	-
HCM Control Delay (s)	10.7	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	101	0	0	1227	0	0	239
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3505	0	0	2682
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3505	0	0	2682
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	6%
Adj. Flow (vph)	0	106	0	0	1292	0	0	252
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	106	0	0	1292	0	0	252
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0



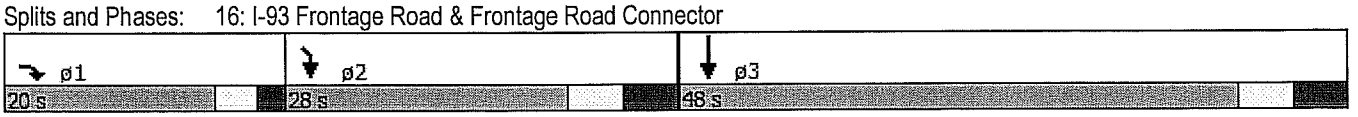
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.09			0.47			0.23
v/c Ratio		0.37			0.79			0.40
Control Delay		6.8			24.9			31.3
Queue Delay		0.0			0.0			0.0
Total Delay		6.8			24.9			31.3
LOS		A			C			C
Approach Delay					24.9			
Approach LOS					C			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			322			69
Queue Length 95th (ft)		24			412			108
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		405			1629			623
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.26			0.79			0.40

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 86.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 24.7 Intersection LOS: C

Intersection Capacity Utilization 66.4%
ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 76

Splits and Phases: 16: I-93 Frontage Road & Frontage Road Connector



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations												
Volume (vph)	5	277	239	121	38	461	476	1	188	1	302	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.916								0.850		
Flt Protected							0.975		0.950			
Satd. Flow (prot)	0	3160	0	0	0	0	3443	0	1770	1525	0	0
Flt Permitted		0.947					0.564		0.752			
Satd. Flow (perm)	0	2993	0	0	0	0	1992	0	1401	1525	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		31								5		
Link Speed (mph)		30					30			30		
Link Distance (ft)		494					738			733		
Travel Time (s)		11.2					16.8			16.7		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	6%	5%	1%	8%	2%	2%	0%	2%	0%	5%	17%
Adj. Flow (vph)	5	286	246	125	39	475	491	1	194	1	311	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	662	0	0	0	0	1006	0	194	337	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		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	0.85	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Number of Detectors	1	2			1	1	2		1	2		
Detector Template	Left	Thru			Left	Left	Thru		Left	Thru		
Leading Detector (ft)	20	100			20	20	100		20	100		
Trailing Detector (ft)	0	0			0	0	0		0	0		
Detector 1 Position(ft)	0	0			0	0	0		0	0		
Detector 1 Size(ft)	20	6			20	20	6		20	6		
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)		94					94			94		
Detector 2 Size(ft)		6					6			6		
Detector 2 Type		Cl+Ex					Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0					0.0			0.0		
Turn Type	Perm	NA			pm+pt	pm+pt	NA		Perm	NA		
Protected Phases		1			4	4	1 4			3		
Permitted Phases	1				1 4	1 4			3			
Detector Phase	1	1			4	4	1 4		3	3		
Switch Phase												

Lane Group	SBL2	SBT	SBR	ø2
Lane Configurations		↕		
Volume (vph)	2	1	6	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	12	12	12	
Lane Util. Factor	1.00	1.00	1.00	
Frt		0.910		
Flt Protected		0.989		
Satd. Flow (prot)	0	1710	0	
Flt Permitted		0.925		
Satd. Flow (perm)	0	1599	0	
Right Turn on Red			Yes	
Satd. Flow (RTOR)		6		
Link Speed (mph)		30		
Link Distance (ft)		242		
Travel Time (s)		5.5		
Peak Hour Factor	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	0%	0%	
Adj. Flow (vph)	2	1	6	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	9	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		12		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	1.00	1.00	1.00	
Turning Speed (mph)	15		9	
Number of Detectors	1	2		
Detector Template	Left	Thru		
Leading Detector (ft)	20	100		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)		94		
Detector 2 Size(ft)		6		
Detector 2 Type		Cl+Ex		
Detector 2 Channel				
Detector 2 Extend (s)		0.0		
Turn Type	Perm	NA		
Protected Phases		3		2
Permitted Phases	3			
Detector Phase	3	3		
Switch Phase				

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Minimum Initial (s)	10.0	10.0			5.0	5.0			5.0	5.0		
Minimum Split (s)	16.0	16.0			11.0	11.0			11.0	11.0		
Total Split (s)	20.0	20.0			12.0	12.0			26.0	26.0		
Total Split (%)	25.0%	25.0%			15.0%	15.0%			32.5%	32.5%		
Maximum Green (s)	14.0	14.0			6.0	6.0			20.0	20.0		
Yellow Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
All-Red Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
Lost Time Adjust (s)		0.0							0.0	0.0		
Total Lost Time (s)		6.0							6.0	6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0			2.0	2.0			2.0	2.0		
Recall Mode	C-Max	C-Max			None	None			None	None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		36.9					42.9		19.1	19.1		
Actuated g/C Ratio		0.46					0.54		0.24	0.24		
v/c Ratio		0.47					1.19dl		0.58	0.91		
Control Delay		15.8					13.8		34.4	60.6		
Queue Delay		0.0					0.0		0.0	0.0		
Total Delay		15.8					13.8		34.4	60.6		
LOS		B					B		C	E		
Approach Delay		15.8					13.8			51.0		
Approach LOS		B					B			D		
90th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
90th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
70th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
70th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
50th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
50th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
30th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
30th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
10th %ile Green (s)	40.3	40.3			6.0	6.0			15.7	15.7		
10th %ile Term Code	Coord	Coord			Max	Max			Gap	Gap		
Queue Length 50th (ft)		111					16		85	160		
Queue Length 95th (ft)		158					#53		151	#311		
Internal Link Dist (ft)		414					658			653		
Turn Bay Length (ft)												
Base Capacity (vph)		1395					1175		350	385		
Starvation Cap Reductn		0					0		0	0		
Spillback Cap Reductn		0					0		0	0		
Storage Cap Reductn		0					0		0	0		
Reduced v/c Ratio		0.47					0.86		0.55	0.88		

Intersection Summary

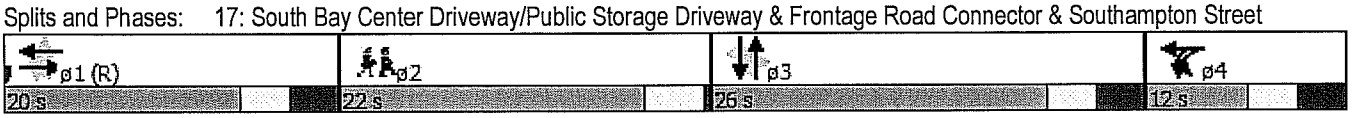
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Lane Group	SBL2	SBT	SBR	ø2
Minimum Initial (s)	5.0	5.0		4.0
Minimum Split (s)	11.0	11.0		22.0
Total Split (s)	26.0	26.0		22.0
Total Split (%)	32.5%	32.5%		28%
Maximum Green (s)	20.0	20.0		18.0
Yellow Time (s)	3.0	3.0		3.5
All-Red Time (s)	3.0	3.0		0.5
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag				
Lead-Lag Optimize?				
Vehicle Extension (s)	2.0	2.0		2.0
Recall Mode	None	None		None
Walk Time (s)				5.0
Flash Dont Walk (s)				13.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		19.1		
Actuated g/C Ratio		0.24		
v/c Ratio		0.02		
Control Delay		16.6		
Queue Delay		0.0		
Total Delay		16.6		
LOS		B		
Approach Delay		16.6		
Approach LOS		B		
90th %ile Green (s)	20.0	20.0		0.0
90th %ile Term Code	Max	Max		Skip
70th %ile Green (s)	20.0	20.0		0.0
70th %ile Term Code	Max	Max		Skip
50th %ile Green (s)	20.0	20.0		0.0
50th %ile Term Code	Max	Max		Skip
30th %ile Green (s)	20.0	20.0		0.0
30th %ile Term Code	Max	Max		Skip
10th %ile Green (s)	15.7	15.7		0.0
10th %ile Term Code	Gap	Gap		Skip
Queue Length 50th (ft)		1		
Queue Length 95th (ft)		12		
Internal Link Dist (ft)		162		
Turn Bay Length (ft)				
Base Capacity (vph)		404		
Starvation Cap Reductn		0		
Spillback Cap Reductn		0		
Storage Cap Reductn		0		
Reduced v/c Ratio		0.02		

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 23.3 Intersection LOS: C
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	72	0	0	0	142	1194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.995
Satd. Flow (prot)	3662	0	0	0	0	3874
Flt Permitted	0.950					0.995
Satd. Flow (perm)	3662	0	0	0	0	3874
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	0	0	0	154	1298
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	0	0	0	1452
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	23.0				57.0	57.0
Total Split (%)	28.8%				71.3%	71.3%
Maximum Green (s)	18.0				52.0	52.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					64.0
Actuated g/C Ratio	0.12					0.80
v/c Ratio	0.17					0.47
Control Delay	21.4					4.1
Queue Delay	0.0					0.0
Total Delay	21.4					4.1
LOS	C					A
Approach Delay	21.4					4.1
Approach LOS	C					A
90th %ile Green (s)	10.0				60.0	60.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				60.0	60.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				60.0	60.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				60.0	60.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				75.0	75.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	9					118
Queue Length 95th (ft)	m23					153
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	823					3099
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.09					0.47

Intersection Summary

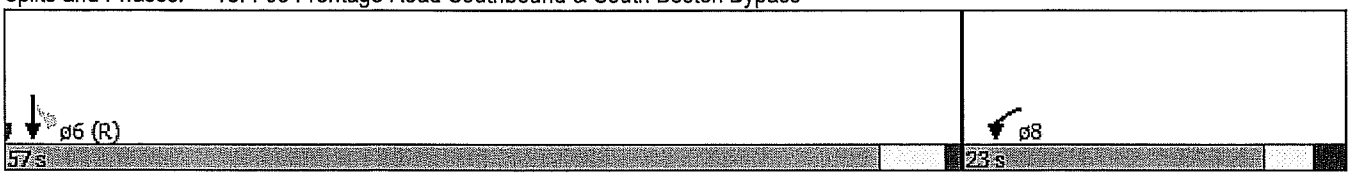
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47

Intersection Signal Delay: 4.9
Intersection Capacity Utilization 53.8%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

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

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	28	0	0	49	34	23	1496	64	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.938			0.994				
Flt Protected		0.961						0.999				
Satd. Flow (prot)	0	3855	0	0	3430	0	0	5386	0	0	0	0
Flt Permitted		0.718						0.999				
Satd. Flow (perm)	0	2880	0	0	3430	0	0	5386	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	30	0	0	53	37	25	1626	70	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	90	0	0	1721	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	34.0	34.0			34.0		46.0	46.0				
Total Split (%)	42.5%	42.5%			42.5%		57.5%	57.5%				
Maximum Green (s)	26.0	26.0			26.0		40.0	40.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			46.0				
Actuated g/C Ratio		0.25			0.25			0.58				
v/c Ratio		0.21			0.10			0.55				
Control Delay		27.2			20.4			11.6				
Queue Delay		0.0			0.0			0.0				
Total Delay		27.2			20.4			11.6				
LOS		C			C			B				
Approach Delay		27.2			20.4			11.6				
Approach LOS		C			C			B				
90th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		36			15			174				
Queue Length 95th (ft)		65			33			240				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		936			1123			3101				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.16			0.08			0.55				

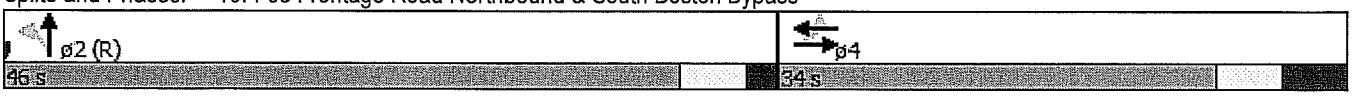
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 13.3
Intersection Capacity Utilization 59.1%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service B

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



2021 Build Conditions

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1022	280	322	1095	602	341	610	557	279	452	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.993	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3374	1442	2968	3406	1538	3273	3252	1468	3303	3235	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			30			516		4	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	7%	12%	18%	6%	5%	7%	11%	10%	6%	11%	7%
Adj. Flow (vph)	0	1076	295	339	1153	634	359	642	586	294	476	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1076	295	339	1153	634	359	642	586	294	500	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

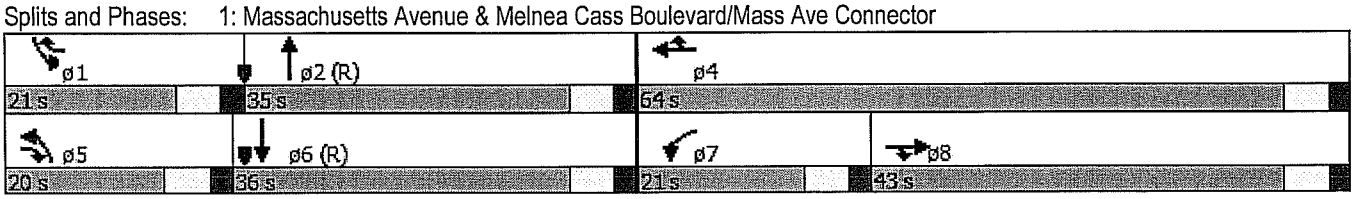
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		43.0		21.0	64.0		20.0	35.0		21.0	36.0	
Total Split (%)		35.8%		17.5%	53.3%		16.7%	29.2%		17.5%	30.0%	
Maximum Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		37.0	57.0	14.9	57.9	77.7	14.0	30.3	120.0	13.8	30.1	
Actuated g/C Ratio		0.31	0.48	0.12	0.48	0.65	0.12	0.25	1.00	0.12	0.25	
v/c Ratio		1.03	0.41	0.92	0.70	0.63	0.94	0.78	0.40	0.78	0.61	
Control Delay		78.1	16.3	82.8	27.2	15.1	86.5	49.9	0.8	66.0	43.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		78.1	16.3	82.8	27.2	15.1	86.5	49.9	0.8	66.0	43.3	
LOS		E	B	F	C	B	F	D	A	E	D	
Approach Delay		64.8			32.4			40.0			51.7	
Approach LOS		E			C			D			D	
90th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
90th %ile Term Code		Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		37.0		15.0	58.0		14.0	29.0		15.0	30.0	
50th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		37.0		15.0	58.0		14.0	30.8		13.2	30.0	
30th %ile Term Code		Max		Max	Hold		Max	Coord		Gap	Coord	
10th %ile Green (s)		37.0		14.5	57.5		14.0	33.8		10.7	30.5	
10th %ile Term Code		Max		Gap	Hold		Max	Coord		Gap	Coord	
Queue Length 50th (ft)		~471	102	135	356	248	144	248	0	114	180	
Queue Length 95th (ft)		#606	173	#223	436	363	#237	320	0	162	238	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1040	728	371	1646	1007	381	821	1468	412	814	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.03	0.41	0.91	0.70	0.63	0.94	0.78	0.40	0.71	0.61	

Intersection Summary

Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 44.6 Intersection LOS: D
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	38	0	73	0	0	0	126	453	0	3	429	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.912										0.850
Flt Protected		0.983					0.950					
Satd. Flow (prot)	0	1703	0	0	0	0	1805	1696	0	0	1713	1615
Flt Permitted		0.983					0.435				0.776	
Satd. Flow (perm)	0	1703	0	0	0	0	826	1696	0	0	1329	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										149
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	11%	0%
Adj. Flow (vph)	41	0	78	0	0	0	135	487	0	3	461	149
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	119	0	0	0	0	135	487	0	0	464	149
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	25.0	25.0					14.0			30.0	30.0	30.0
Total Split (%)	27.8%	27.8%					15.6%			33.3%	33.3%	33.3%
Maximum Green (s)	21.0	21.0					10.0			26.0	26.0	26.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.2					67.8	71.8			57.8	57.8
Actuated g/C Ratio		0.11					0.75	0.80			0.64	0.64
v/c Ratio		0.41					0.18	0.36			0.54	0.14
Control Delay		13.8					1.9	2.2			11.9	1.4
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		13.8					1.9	2.2			11.9	1.4
LOS		B					A	A			B	A
Approach Delay		13.8						2.1			9.3	
Approach LOS		B						A			A	
90th %ile Green (s)	10.8	10.8					10.0			57.2	57.2	57.2
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
70th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
50th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
50th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					10.0			58.0	58.0	58.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		5					9	35			129	0
Queue Length 95th (ft)		54					16	47			216	20
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		480					731	1353			854	1090
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.25					0.18	0.36			0.54	0.14

Intersection Summary

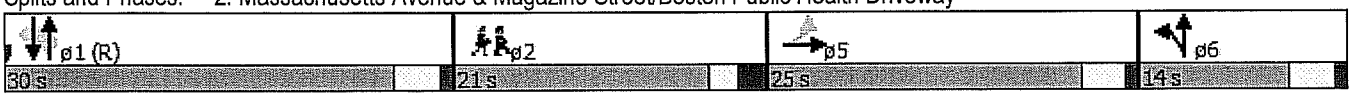
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 6.4
Intersection LOS: A
Intersection Capacity Utilization 64.9%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	216	143	48	64	73	115	393	477	49	358	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.940			0.920				0.850		0.983	
Flt Protected	0.950			0.950			0.950				0.995	
Satd. Flow (prot)	1752	1704	0	1626	1665	0	1822	1900	1422	0	3407	0
Flt Permitted	0.950			0.950			0.470				0.871	
Satd. Flow (perm)	1752	1704	0	1626	1665	0	901	1900	1422	0	2983	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			60				342		16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	3%	6%	3%	11%	16%	15%	9%	10%	6%	16%	9%	16%
Adj. Flow (vph)	26	218	144	48	65	74	116	397	482	49	362	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	362	0	48	139	0	116	397	482	0	464	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		27.0	27.0		34.0	34.0	27.0	34.0	34.0	
Total Split (%)	27.8%	27.8%		30.0%	30.0%		37.8%	37.8%	30.0%	37.8%	37.8%	
Maximum Green (s)	20.0	20.0		22.0	22.0		28.0	28.0	22.0	28.0	28.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	19.2	19.2		11.9	11.9		42.8	42.8	60.8		42.8	
Actuated g/C Ratio	0.21	0.21		0.13	0.13		0.48	0.48	0.68		0.48	
v/c Ratio	0.07	0.93		0.22	0.51		0.27	0.44	0.45		0.32	
Control Delay	28.3	63.3		35.1	26.7		18.5	19.1	3.3		10.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	28.3	63.3		35.1	26.7		18.5	19.1	3.3		10.5	
LOS	C	E		D	C		B	B	A		B	
Approach Delay		60.9			28.9			11.4			10.5	
Approach LOS		E			C			B			B	
90th %ile Green (s)	20.0	20.0		20.0	20.0		34.0	34.0	20.0	34.0	34.0	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	20.0	20.0		13.8	13.8		40.2	40.2	13.8	40.2	40.2	
70th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	20.0	20.0		9.9	9.9		44.1	44.1	9.9	44.1	44.1	
50th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	20.0	20.0		8.0	8.0		46.0	46.0	8.0	46.0	46.0	
30th %ile Term Code	Max	Max		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	16.1	16.1		8.0	8.0		49.9	49.9	8.0	49.9	49.9	
10th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	12	183		25	43		37	139	26		37	
Queue Length 95th (ft)	33	#346		51	88		92	265	64		78	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	389	405		397	452		428	904	1064		1428	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.07	0.89		0.12	0.31		0.27	0.44	0.45		0.32	

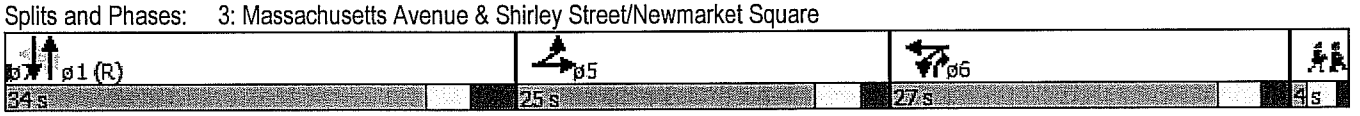
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 22.2 Intersection LOS: C
Intersection Capacity Utilization 78.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	203	782	58	211	338
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	5	5	12	3	11
Mvmt Flow	6	207	798	59	215	345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1431	429	0	0	857	0
Stage 1	828	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Critical Hdwy	6.8	7	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.35	-	-	2.23	-
Pot Cap-1 Maneuver	128	566	-	-	773	-
Stage 1	394	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	566	-	-	773	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	394	-	-	-	-	-
Stage 2	338	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.2	0	5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	204	566	773	-
HCM Lane V/C Ratio	-	-	0.03	0.366	0.279	-
HCM Control Delay (s)	-	-	23.2	15	11.4	0.9
HCM Lane LOS	-	-	C	C	B	A
HCM 95th %tile Q(veh)	-	-	0.1	1.7	1.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	56	41	116	12	48	23	739	221	32	298	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.958			0.880			0.965			0.994	
Flt Protected		0.983		0.950			0.950			0.950		
Satd. Flow (prot)	0	2681	0	1736	1472	0	1805	3793	0	1736	1708	0
Flt Permitted		0.844		0.950			0.428			0.149		
Satd. Flow (perm)	0	2302	0	1736	1472	0	813	3793	0	272	1708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			51			29			2	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	20%	38%	20%	4%	20%	12%	0%	5%	1%	4%	10%	25%
Adj. Flow (vph)	55	60	44	123	13	51	24	786	235	34	317	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	159	0	123	64	0	24	1021	0	34	330	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		25.7		11.3	38.3		26.9	26.9		26.9	26.9	
Actuated g/C Ratio		0.33		0.15	0.50		0.35	0.35		0.35	0.35	
v/c Ratio		1.25dl		0.49	0.08		0.08	0.76		0.36	0.55	
Control Delay		48.7		41.7	3.2		26.1	31.3		41.7	30.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		48.7		41.7	3.2		26.1	31.3		41.7	30.6	
LOS		D		D	A		C	C		D	C	
Approach Delay		48.7			28.5			31.2			31.6	
Approach LOS		D			C			C			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	39.0		13.5	57.5		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Max		Gap	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	28.4		11.7	45.1		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	18.9		9.3	33.2		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Gap		Gap	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	10.0		0.0	10.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Min		Skip	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		27		58	3		9	247		14	141	
Queue Length 95th (ft)		#85		124	18		32	#462		#61	#300	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		293		363	961		283	1341		94	596	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.54		0.34	0.07		0.08	0.76		0.36	0.55	

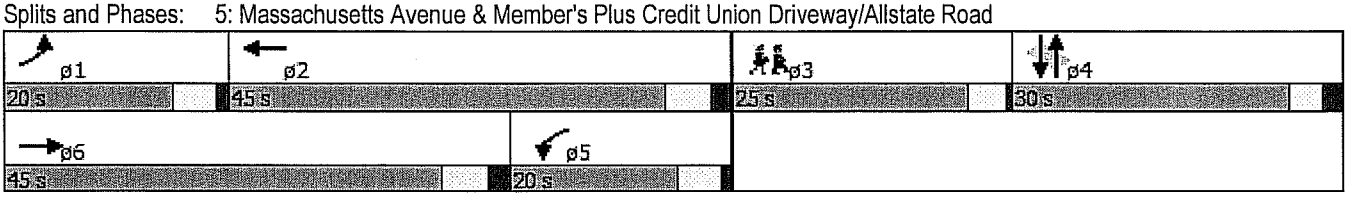
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 77
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 32.6 Intersection LOS: C
Intersection Capacity Utilization 49.7% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 93.5
50th %ile Actuated Cycle: 81.1
30th %ile Actuated Cycle: 69.2
10th %ile Actuated Cycle: 46
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	163	59	0	0	109	0	45	0
Peak Hour Factor	0.92	0.81	0.81	0.92	0.81	0.81	0.92	0.81	0.81
Heavy Vehicles, %	2	5	2	2	0	12	2	0	0
Mvmt Flow	0	201	73	0	0	135	0	56	0
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.7	8.6	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	0%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	45	163	59	109
LT Vol	45	0	0	0
Through Vol	0	163	0	109
RT Vol	0	0	59	0
Lane Flow Rate	56	201	73	135
Geometry Grp	2	7	7	5
Degree of Util (X)	0.077	0.266	0.081	0.173
Departure Headway (Hd)	5.018	4.751	3.999	4.629
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	717	747	882	779
Service Time	3.027	2.541	1.787	2.636
HCM Lane V/C Ratio	0.078	0.269	0.083	0.173
HCM Control Delay	8.4	9.3	7.1	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.1	0.3	0.6

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	30	208	775	16	52	407
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	3	5	0	18	8
Mvmt Flow	33	231	861	18	58	452

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1212	439	0	0	879	0
Stage 1	870	-	-	-	-	-
Stage 2	342	-	-	-	-	-
Critical Hdwy	6.8	6.96	-	-	4.46	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.33	-	-	2.38	-
Pot Cap-1 Maneuver	177	563	-	-	671	-
Stage 1	375	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	157	563	-	-	671	-
Mov Cap-2 Maneuver	157	-	-	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.4	0	1.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	425	671	-
HCM Lane V/C Ratio	-	-	0.622	0.086	-
HCM Control Delay (s)	-	-	26.4	10.9	0.5
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	4.1	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	559	410	66	288	6	347	281	288	8	191	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.998			0.924			0.937	
Flt Protected	0.950				0.991		0.950				0.999	
Satd. Flow (prot)	3433	1792	1524	0	3236	0	3242	1672	0	0	3076	0
Flt Permitted	0.950				0.695		0.950				0.588	
Satd. Flow (perm)	3433	1792	1524	0	2269	0	3242	1672	0	0	1810	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			436		1			53			148	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	2%	6%	6%	4%	12%	0%	8%	6%	4%	27%	9%	10%
Adj. Flow (vph)	398	595	436	70	306	6	369	299	306	9	203	154
Shared Lane Traffic (%)												
Lane Group Flow (vph)	398	595	436	0	382	0	369	605	0	0	366	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		18.0	24.0	24.0		18.0			16.0	16.0	
Total Split (%)	15.0%		18.0%	24.0%	24.0%		18.0%			16.0%	16.0%	
Maximum Green (s)	11.0		14.0	19.0	19.0		14.0			11.0	11.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	80.0		46.0		14.0	30.0			11.0	
Actuated g/C Ratio	0.11	0.61	0.80		0.46		0.14	0.30			0.11	
v/c Ratio	1.06	0.54	0.33		0.37		0.81	1.12			1.11	
Control Delay	105.6	13.7	0.9		18.8		57.3	109.2			108.3	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	105.6	13.7	0.9		18.8		57.3	109.2			108.3	
LOS	F	B	A		B		E	F			F	
Approach Delay		35.4			18.8			89.5			108.3	
Approach LOS		D			B			F			F	
90th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		14.0	46.0	46.0		14.0			11.0	11.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~143	204	0		80		119	~424			~93	
Queue Length 95th (ft)	#238	297	15		117		#189	#639			#189	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	377	1093	1306		1044		453	538			330	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.06	0.54	0.33		0.37		0.81	1.12			1.11	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

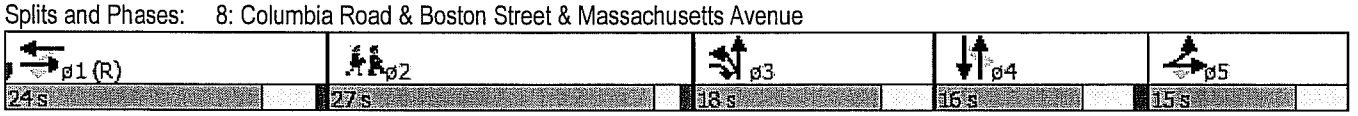
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 58.6 Intersection LOS: E
Intersection Capacity Utilization 100.3% ICU Level of Service G
Analysis Period (min) 15

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	445	56	162	342	114	51	187	422	129	150	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.983			0.963				0.850		0.968	
Flt Protected	0.950			0.950				0.989		0.950		
Satd. Flow (prot)	1626	3299	0	1612	3623	0	0	1613	1538	1719	1633	0
Flt Permitted	0.950			0.950				0.701		0.400		
Satd. Flow (perm)	1626	3299	0	1612	3623	0	0	1143	1538	724	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			38				449		11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	11%	7%	12%	12%	10%	5%	11%	18%	5%	5%	15%	4%
Adj. Flow (vph)	48	473	60	172	364	121	54	199	449	137	160	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	533	0	172	485	0	0	253	449	137	204	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	16.0	27.0		19.0	30.0		29.0	29.0	19.0	29.0	29.0	
Total Split (%)	14.5%	24.5%		17.3%	27.3%		26.4%	26.4%	17.3%	26.4%	26.4%	
Maximum Green (s)	10.0	21.0		13.0	24.0		22.0	22.0	13.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.6	56.1		12.9	63.2			22.0	73.6	22.0	22.0	
Actuated g/C Ratio	0.08	0.51		0.12	0.57			0.20	0.67	0.20	0.20	
v/c Ratio	0.38	0.32		0.91	0.23			1.11	0.38	0.95	0.61	
Control Delay	56.8	16.0		95.6	11.6			133.9	1.6	108.5	46.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	56.8	16.0		95.6	11.6			133.9	1.6	108.5	46.6	
LOS	E	B		F	B			F	A	F	D	
Approach Delay		19.4			33.6			49.3			71.4	
Approach LOS		B			C			D			E	
90th %ile Green (s)	10.0	56.0		13.0	59.0		22.0	22.0	13.0	22.0	22.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	9.0	56.0		13.0	60.0		22.0	22.0	13.0	22.0	22.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	56.0		13.0	61.0		22.0	22.0	13.0	22.0	22.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	56.7		12.3	75.0		22.0	22.0	12.3	22.0	22.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	33	108		122	80			~204	0	96	125	
Queue Length 95th (ft)	71	146		#252	115			#366	30	#220	205	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	147	1688		190	2097			228	1177	144	335	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.33	0.32		0.91	0.23			1.11	0.38	0.95	0.61	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	32%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

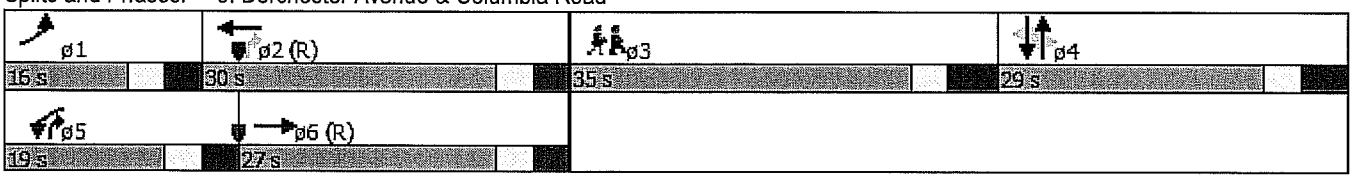
Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 31 (28%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 40.5 Intersection LOS: D
Intersection Capacity Utilization 67.8% ICU Level of Service C
Analysis Period (min) 15

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	42	18	21	504	453	89
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	12	22	19	8	9	12
Mvmt Flow	45	19	23	542	487	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1122	535	583	0	-	0
Stage 1	535	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.52	6.42	4.29	-	-	-
Critical Hdwy Stg 1	5.52	-	-	-	-	-
Critical Hdwy Stg 2	5.52	-	-	-	-	-
Follow-up Hdwy	3.608	3.498	2.371	-	-	-
Pot Cap-1 Maneuver	218	508	913	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	210	508	913	-	-	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.8	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	913	-	255	-	-
HCM Lane V/C Ratio	0.025	-	0.253	-	-
HCM Control Delay (s)	9	0	23.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	47	2	27	0	0	0	17	427	50	32	388	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	25	0	21	0	0	0	0	10	1	2	14	13
Mvmt Flow	52	2	30	0	0	0	19	469	55	35	426	77

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1069	1097	465	503	0	0	524	0	0
Stage 1	535	535	-	-	-	-	-	-	-
Stage 2	534	562	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.41	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.489	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	222	215	560	1072	-	-	1043	-	-
Stage 1	543	527	-	-	-	-	-	-	-
Stage 2	544	513	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	206	0	560	1072	-	-	1043	-	-
Mov Cap-2 Maneuver	206	0	-	-	-	-	-	-	-
Stage 1	517	0	-	-	-	-	-	-	-
Stage 2	530	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	0.3	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1072	-	-	268	1043	-	-
HCM Lane V/C Ratio	0.017	-	-	0.312	0.034	-	-
HCM Control Delay (s)	8.4	0	-	24.4	8.6	0	-
HCM Lane LOS	A	A	-	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	47	328	0	0	0	0	481	4	7	294	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.869						0.999				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1687	1623	0	0	0	0	0	1758	0	0	1761	0
Flt Permitted	0.950										0.989	
Satd. Flow (perm)	1687	1623	0	0	0	0	0	1758	0	0	1743	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		330										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			230			362			550	
Travel Time (s)		7.0			5.2			8.2			12.5	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	7%	0%	2%	0%	0%	0%	0%	8%	0%	0%	8%	0%
Adj. Flow (vph)	87	53	369	0	0	0	0	540	4	8	330	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	422	0	0	0	0	0	544	0	0	338	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	11.3	11.3						45.2			45.2	
Actuated g/C Ratio	0.17	0.17						0.68			0.68	
v/c Ratio	0.31	0.77						0.46			0.29	
Control Delay	26.4	16.7						7.3			5.7	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	26.4	16.7						7.3			5.7	
LOS	C	B						A			A	
Approach Delay		18.4						7.3			5.7	
Approach LOS		B						A			A	
90th %ile Green (s)	19.2	19.2						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	13.3	13.3						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.9	8.9						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
10th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
Queue Length 50th (ft)	31	33						70			38	
Queue Length 95th (ft)	66	114						198			110	
Internal Link Dist (ft)		228			150			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	637	818						1194			1184	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.14	0.52						0.46			0.29	

Intersection Summary

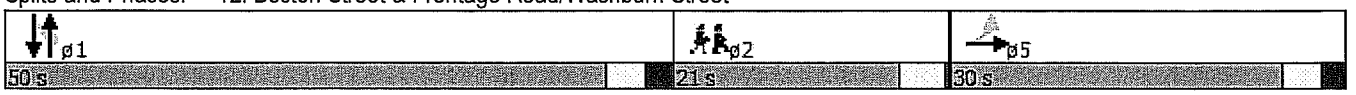
Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 66.5
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 11.0
Intersection LOS: B
Intersection Capacity Utilization 56.6%
ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 74.2
70th %ile Actuated Cycle: 68.3
50th %ile Actuated Cycle: 63.9
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 63

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	95	117	163	16	22	12	51	344	15	5	2	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.972					0.993				
Flt Protected		0.950						0.993				
Satd. Flow (prot)	0	1616	1748	0	0	0	0	3312	0	0	0	0
Flt Permitted		0.233						0.858				
Satd. Flow (perm)	0	396	1748	0	0	0	0	2862	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			4					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	15%	9%	6%	0%	7%	33%	19%	5%	0%	20%	0%	8%
Adj. Flow (vph)	96	118	165	16	22	12	52	347	15	5	2	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	214	203	0	0	0	0	431	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	138	96	10	8	10	45	79	51	190	145	106	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.958					0.898					0.994	
Flt Protected	0.982					0.995					0.965	
Satd. Flow (prot)	3094	0	0	0	0	2509	0	0	0	0	3120	0
Flt Permitted	0.764					0.889					0.965	
Satd. Flow (perm)	2407	0	0	0	0	2242	0	0	0	0	3120	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	2					32						
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	8%	15%	10%	38%	30%	23%	27%	34%	11%	11%	12%	5%
Adj. Flow (vph)	139	97	10	8	10	45	80	52	192	146	107	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	384	0	0	0	0	195	0	0	0	0	464	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations					
Volume (vph)	2	39	108	190	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	
Storage Lanes		0		0	
Taper Length (ft)		25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95
Frt			0.914		
Flt Protected			0.994		
Satd. Flow (prot)	0	0	2979	0	0
Flt Permitted			0.994		
Satd. Flow (perm)	0	0	2979	0	0
Right Turn on Red					Yes
Satd. Flow (RTOR)			2		
Link Speed (mph)			30		
Link Distance (ft)			1221		
Travel Time (s)			27.8		
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	0%	16%	12%	8%	9%
Adj. Flow (vph)	2	39	109	192	11
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	0	353	0	0
Enter Blocked Intersection	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right
Median Width(ft)			0		
Link Offset(ft)			0		
Crosswalk Width(ft)			16		
Two way Left Turn Lane					
Headway Factor	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	15		9	9
Number of Detectors	1	1	2		
Detector Template	Left	Left	Thru		
Leading Detector (ft)	20	20	100		
Trailing Detector (ft)	0	0	0		
Detector 1 Position(ft)	0	0	0		
Detector 1 Size(ft)	20	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel					
Detector 1 Extend (s)	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		
Detector 2 Position(ft)			94		
Detector 2 Size(ft)			6		
Detector 2 Type			Cl+Ex		
Detector 2 Channel					
Detector 2 Extend (s)			0.0		
Turn Type	Split	Split	NA		
Protected Phases	7	7	7		
Permitted Phases					

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	14.0	14.0	14.0			29.0	29.0	29.0			42.0	42.0
Total Split (%)	9.3%	9.3%	9.3%			19.3%	19.3%	19.3%			28.0%	28.0%
Maximum Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		35.0	39.0					23.0				
Actuated g/C Ratio		0.23	0.26					0.15				
v/c Ratio		1.24	0.44					0.98				
Control Delay		187.6	49.1					100.9				
Queue Delay		0.0	0.0					0.0				
Total Delay		187.6	49.1					100.9				
LOS		F	D					F				
Approach Delay			120.2					100.9				
Approach LOS			F					F				
90th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.0	35.0
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			35.5	35.5
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			40.4	40.4
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	10.0	10.0	10.0			23.0	23.0	23.0			47.5	47.5
10th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
Queue Length 50th (ft)		~190	164					224				
Queue Length 95th (ft)		#361	246					#340				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		173	457					439				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.24	0.44					0.98				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	42.0			42.0	42.0	42.0			35.0	35.0	35.0	
Total Split (%)	28.0%			28.0%	28.0%	28.0%			23.3%	23.3%	23.3%	
Maximum Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	38.7					38.7					26.0	
Actuated g/C Ratio	0.26					0.26					0.17	
v/c Ratio	0.62					0.32					1.20dl	
Control Delay	55.0					40.3					76.3	
Queue Delay	0.0					0.0					0.0	
Total Delay	55.0					40.3					76.3	
LOS	D					D					E	
Approach Delay	55.0					40.3					76.3	
Approach LOS	D					D					E	
90th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	35.0			35.0	35.0	35.0			28.0	28.0	28.0	
70th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
50th %ile Green (s)	35.5			35.5	35.5	35.5			27.5	27.5	27.5	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	40.4			40.4	40.4	40.4			25.0	25.0	25.0	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	47.5			47.5	47.5	47.5			21.3	21.3	21.3	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	180					70					232	
Queue Length 95th (ft)	243					110					298	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	622					601					582	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.62					0.32					0.80	

Intersection Summary

Lane Group	SWL2	SWL	SWT	SWR	SWR2
Detector Phase	7	7	7		
Switch Phase					
Minimum Initial (s)	8.0	8.0	8.0		
Minimum Split (s)	17.0	17.0	17.0		
Total Split (s)	30.0	30.0	30.0		
Total Split (%)	20.0%	20.0%	20.0%		
Maximum Green (s)	23.0	23.0	23.0		
Yellow Time (s)	3.0	3.0	3.0		
All-Red Time (s)	4.0	4.0	4.0		
Lost Time Adjust (s)			0.0		
Total Lost Time (s)			7.0		
Lead/Lag	Lead	Lead	Lead		
Lead-Lag Optimize?	Yes	Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0		
Recall Mode	None	None	None		
Act Effct Green (s)			21.4		
Actuated g/C Ratio			0.14		
v/c Ratio			0.93dr		
Control Delay			79.0		
Queue Delay			0.0		
Total Delay			79.0		
LOS			E		
Approach Delay			79.0		
Approach LOS			E		
90th %ile Green (s)	23.0	23.0	23.0		
90th %ile Term Code	Max	Max	Max		
70th %ile Green (s)	23.0	23.0	23.0		
70th %ile Term Code	Max	Max	Max		
50th %ile Green (s)	23.0	23.0	23.0		
50th %ile Term Code	Max	Max	Max		
30th %ile Green (s)	20.6	20.6	20.6		
30th %ile Term Code	Gap	Gap	Gap		
10th %ile Green (s)	17.2	17.2	17.2		
10th %ile Term Code	Gap	Gap	Gap		
Queue Length 50th (ft)			175		
Queue Length 95th (ft)			235		
Internal Link Dist (ft)			1141		
Turn Bay Length (ft)					
Base Capacity (vph)			458		
Starvation Cap Reductn			0		
Spillback Cap Reductn			0		
Storage Cap Reductn			0		
Reduced v/c Ratio			0.77		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.24
Intersection Signal Delay: 82.8 Intersection LOS: F
Intersection Capacity Utilization 99.7% ICU Level of Service F
Analysis Period (min) 15

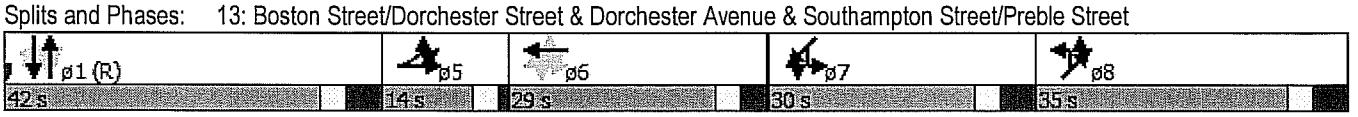
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	470	375	0	0	581	463	378	25	99	0	0	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.994					0.950	0.958				
Satd. Flow (prot)	1466	1848	0	0	3374	1743	1779	1629	1572	0	0	1757
Flt Permitted	0.950	0.994					0.950	0.958				
Satd. Flow (perm)	1466	1848	0	0	3374	1743	1779	1629	1572	0	0	1757
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165			109			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	17%	9%	0%	0%	7%	5%	6%	7%	13%	0%	0%	6%
Adj. Flow (vph)	495	395	0	0	612	487	398	26	104	0	0	56
Shared Lane Traffic (%)	12%						47%					
Lane Group Flow (vph)	436	454	0	0	612	487	211	213	104	0	0	56
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	30.0	30.0			40.0	40.0	30.0	30.0	30.0			30.0
Total Split (%)	30.0%	30.0%			40.0%	40.0%	30.0%	30.0%	30.0%			30.0%
Maximum Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	28.7	28.7			34.0	34.0	17.3	17.3	17.3			28.7
Actuated g/C Ratio	0.29	0.29			0.34	0.34	0.17	0.17	0.17			0.29
v/c Ratio	1.04	0.86			0.53	0.69	0.69	0.76	0.29			0.10
Control Delay	80.5	42.1			28.7	24.5	49.8	55.7	8.0			0.8
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	80.5	42.1			28.7	24.5	49.8	55.7	8.0			0.8
LOS	F	D			C	C	D	E	A			A
Approach Delay		60.9			26.8			43.9				
Approach LOS		E			C			D				
90th %ile Green (s)	23.0	23.0			34.0	34.0	23.0	23.0	23.0			23.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	25.0	25.0			34.0	34.0	21.0	21.0	21.0			25.0
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	28.6	28.6			34.0	34.0	17.4	17.4	17.4			28.6
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	31.4	31.4			34.0	34.0	14.6	14.6	14.6			31.4
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	35.4	35.4			34.0	34.0	10.6	10.6	10.6			35.4
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	~318	295			164	177	133	136	0			0
Queue Length 95th (ft)	#566	#531			218	297	202	207	39			4
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	420	530			1147	701	409	374	445			581
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	1.04	0.86			0.53	0.69	0.52	0.57	0.23			0.10

Intersection Summary

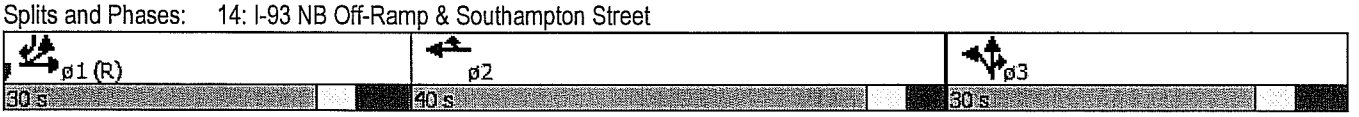
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Offset: 5 (5%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 41.6 Intersection LOS: D
Intersection Capacity Utilization 79.3% ICU Level of Service D
Analysis Period (min) 15

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

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

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	29	0	0	236	289
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	0	10	18
Mvmt Flow	0	31	0	0	251	307

Major/Minor	Minor2		Major2	
Conflicting Flow All	251	251	-	0
Stage 1	251	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.22	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-
Pot Cap-1 Maneuver	707	788	-	-
Stage 1	758	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	707	788	-	-
Mov Cap-2 Maneuver	707	-	-	-
Stage 1	758	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	9.8	0
HCM LOS	A	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	788	-	-
HCM Lane V/C Ratio	0.039	-	-
HCM Control Delay (s)	9.8	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	54	0	0	1119	0	0	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1644	0	0	3312	0	0	2515
Flt Permitted								
Satd. Flow (perm)	0	1644	0	0	3312	0	0	2515
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	0%	9%	0%	0%	13%
Adj. Flow (vph)	0	58	0	0	1203	0	0	261
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	58	0	0	1203	0	0	261
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.0			40.2			20.1
Actuated g/C Ratio		0.09			0.47			0.23
v/c Ratio		0.20			0.78			0.45
Control Delay		1.6			24.7			32.2
Queue Delay		0.0			0.0			0.0
Total Delay		1.6			24.7			32.2
LOS		A			C			C
Approach Delay					24.7			
Approach LOS					C			
90th %ile Green (s)		8.0			40.0			20.0
90th %ile Term Code		Min			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		0.0			40.0			20.0
10th %ile Term Code		Skip			MaxR			MaxR
Queue Length 50th (ft)		0			296			72
Queue Length 95th (ft)		0			385			113
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		409			1539			584
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.14			0.78			0.45

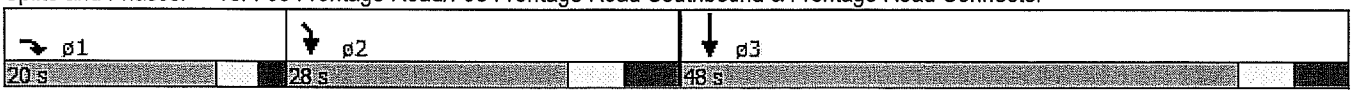
Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 86.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 25.1 Intersection LOS: C

Intersection Capacity Utilization 63.6%
Analysis Period (min) 15
ICU Level of Service B

90th %ile Actuated Cycle: 89
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 76

Splits and Phases: 16: I-93 Frontage Road/I-93 Frontage Road Southbound & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations												
Volume (vph)	585	170	57	63	151	792	1	144	0	250	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	16	12	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00
Frt	0.958								0.850			
Flt Protected						0.990		0.950				
Satd. Flow (prot)	2950	0	0	0	0	3420	0	1492	1508	0	0	0
Flt Permitted						0.572		0.757				
Satd. Flow (perm)	2950	0	0	0	0	1976	0	1189	1508	0	0	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)	7								142			
Link Speed (mph)	30					30			30			
Link Distance (ft)	494					738			733			
Travel Time (s)	11.2					16.8			16.7			
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 (%)	21%	7%	9%	2%	3%	5%	0%	21%	0%	7%	9%	0%
Adj. Flow (vph)	636	185	62	68	164	861	1	157	0	272	12	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	883	0	0	0	0	1094	0	157	284	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right	Left
Median Width(ft)	0					0			12			
Link Offset(ft)	0					0			0			
Crosswalk Width(ft)	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	0.85	1.00	1.00
Turning Speed (mph)		9	9	15	15		9	15		9	9	15
Number of Detectors	2			1	1	2		1	2			1
Detector Template	Thru			Left	Left	Thru		Left	Thru			Left
Leading Detector (ft)	100			20	20	100		20	100			20
Trailing Detector (ft)	0			0	0	0		0	0			0
Detector 1 Position(ft)	0			0	0	0		0	0			0
Detector 1 Size(ft)	6			20	20	6		20	6			20
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Queue (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 1 Delay (s)	0.0			0.0	0.0	0.0		0.0	0.0			0.0
Detector 2 Position(ft)	94					94			94			
Detector 2 Size(ft)	6					6			6			
Detector 2 Type	Cl+Ex					Cl+Ex			Cl+Ex			
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0			0.0			
Turn Type	NA			pm+pt	pm+pt	NA		Perm	NA			Perm
Protected Phases	1			4	4	1 4			3			
Permitted Phases				1 4	1 4			3				3
Detector Phase	1			4	4	1 4		3	3			3
Switch Phase												

Lane Group	SBT	ø2
Lane Configurations	↕	
Volume (vph)	0	
Ideal Flow (vphpl)	1900	
Lane Width (ft)	12	
Lane Util. Factor	1.00	
Frt		
Flt Protected	0.950	
Satd. Flow (prot)	1805	
Flt Permitted	0.274	
Satd. Flow (perm)	521	
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)	30	
Link Distance (ft)	242	
Travel Time (s)	5.5	
Peak Hour Factor	0.92	
Heavy Vehicles (%)	0%	
Adj. Flow (vph)	0	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1	
Enter Blocked Intersection	No	
Lane Alignment	Left	
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	
Turning Speed (mph)		
Number of Detectors	2	
Detector Template	Thru	
Leading Detector (ft)	100	
Trailing Detector (ft)	0	
Detector 1 Position(ft)	0	
Detector 1 Size(ft)	6	
Detector 1 Type	Cl+Ex	
Detector 1 Channel		
Detector 1 Extend (s)	0.0	
Detector 1 Queue (s)	0.0	
Detector 1 Delay (s)	0.0	
Detector 2 Position(ft)	94	
Detector 2 Size(ft)	6	
Detector 2 Type	Cl+Ex	
Detector 2 Channel		
Detector 2 Extend (s)	0.0	
Turn Type	NA	
Protected Phases	3	2
Permitted Phases		
Detector Phase	3	
Switch Phase		

Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Minimum Initial (s)	10.0			5.0	5.0			5.0	5.0			5.0
Minimum Split (s)	16.0			11.0	11.0			11.0	11.0			11.0
Total Split (s)	23.0			21.0	21.0			34.0	34.0			34.0
Total Split (%)	23.0%			21.0%	21.0%			34.0%	34.0%			34.0%
Maximum Green (s)	17.0			15.0	15.0			28.0	28.0			28.0
Yellow Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
All-Red Time (s)	3.0			3.0	3.0			3.0	3.0			3.0
Lost Time Adjust (s)	0.0							0.0	0.0			
Total Lost Time (s)	6.0							6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0			2.0	2.0			2.0
Recall Mode	C-Max			None	None			None	None			None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	49.3					64.3		17.7	17.7			
Actuated g/C Ratio	0.49					0.64		0.18	0.18			
v/c Ratio	0.61					0.74		0.75	0.74			
Control Delay	21.7					7.9		59.2	30.3			
Queue Delay	0.0					0.0		0.0	0.0			
Total Delay	21.7					7.9		59.2	30.3			
LOS	C					A		E	C			
Approach Delay	21.7					7.9			40.6			
Approach LOS	C					A			D			
90th %ile Green (s)	40.8			15.0	15.0			26.2	26.2			26.2
90th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
70th %ile Green (s)	46.1			15.0	15.0			20.9	20.9			20.9
70th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
50th %ile Green (s)	49.4			15.0	15.0			17.6	17.6			17.6
50th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
30th %ile Green (s)	52.7			15.0	15.0			14.3	14.3			14.3
30th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
10th %ile Green (s)	57.5			15.0	15.0			9.5	9.5			9.5
10th %ile Term Code	Coord			Max	Max			Gap	Gap			Gap
Queue Length 50th (ft)	203					63		96	86			
Queue Length 95th (ft)	318					69		151	161			
Internal Link Dist (ft)	414					658			653			
Turn Bay Length (ft)												
Base Capacity (vph)	1457					1487		332	524			
Starvation Cap Reductn	0					0		0	0			
Spillback Cap Reductn	0					0		0	0			
Storage Cap Reductn	0					0		0	0			
Reduced v/c Ratio	0.61					0.74		0.47	0.54			

Intersection Summary

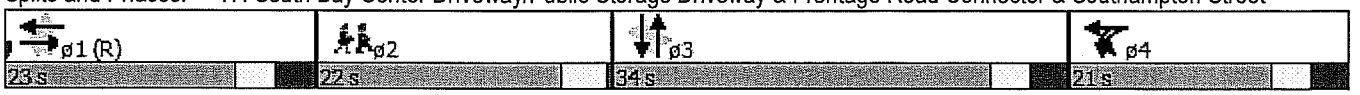
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100

Lane Group	SBT	ø2
Minimum Initial (s)	5.0	4.0
Minimum Split (s)	11.0	22.0
Total Split (s)	34.0	22.0
Total Split (%)	34.0%	22%
Maximum Green (s)	28.0	18.0
Yellow Time (s)	3.0	3.5
All-Red Time (s)	3.0	0.5
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.0	
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		13.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)	17.7	
Actuated g/C Ratio	0.18	
v/c Ratio	0.01	
Control Delay	29.0	
Queue Delay	0.0	
Total Delay	29.0	
LOS	C	
Approach Delay	29.0	
Approach LOS	C	
90th %ile Green (s)	26.2	0.0
90th %ile Term Code	Gap	Skip
70th %ile Green (s)	20.9	0.0
70th %ile Term Code	Gap	Skip
50th %ile Green (s)	17.6	0.0
50th %ile Term Code	Gap	Skip
30th %ile Green (s)	14.3	0.0
30th %ile Term Code	Gap	Skip
10th %ile Green (s)	9.5	0.0
10th %ile Term Code	Gap	Skip
Queue Length 50th (ft)	1	
Queue Length 95th (ft)	5	
Internal Link Dist (ft)	162	
Turn Bay Length (ft)		
Base Capacity (vph)	145	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.01	

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 82.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	96	0	0	0	162	1222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.994
Satd. Flow (prot)	3662	0	0	0	0	3870
Flt Permitted	0.950					0.994
Satd. Flow (perm)	3662	0	0	0	0	3870
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	0	0	0	176	1328
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	0	0	1504
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	25.0				65.0	65.0
Total Split (%)	27.8%				72.2%	72.2%
Maximum Green (s)	20.0				60.0	60.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.26					0.47
Control Delay	23.0					3.7
Queue Delay	0.0					0.0
Total Delay	23.0					3.7
LOS	C					A
Approach Delay	23.0					3.7
Approach LOS	C					A
90th %ile Green (s)	10.0				70.0	70.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	29					126
Queue Length 95th (ft)	m54					158
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	813					3182
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.13					0.47

Intersection Summary

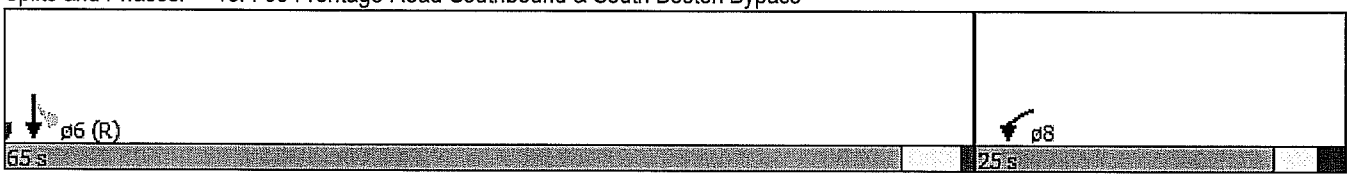
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47

Intersection Signal Delay: 5.0
Intersection Capacity Utilization 55.1%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service B

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

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	110	52	0	0	74	76	22	1642	114	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.924			0.990				
Flt Protected		0.967						0.999				
Satd. Flow (prot)	0	3879	0	0	3379	0	0	5365	0	0	0	0
Flt Permitted		0.708						0.999				
Satd. Flow (perm)	0	2840	0	0	3379	0	0	5365	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19			21				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	57	0	0	80	83	24	1785	124	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	177	0	0	163	0	0	1933	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.28			0.21			0.58				
Control Delay		28.5			26.0			10.8				
Queue Delay		0.0			0.0			0.0				
Total Delay		28.5			26.0			10.8				
LOS		C			C			B				
Approach Delay		28.5			26.0			10.8				
Approach LOS		C			C			B				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		45			35			212				
Queue Length 95th (ft)		76			62			253				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		694			840			3346				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.26			0.19			0.58				

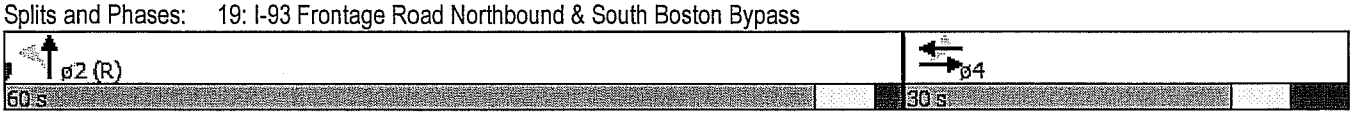
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 16 (18%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.58

Intersection Signal Delay: 13.2
Intersection Capacity Utilization 86.4%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service E

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	742	521	453	941	520	308	554	466	416	721	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3438	1568	3242	3505	1568	3335	3438	1568	3367	3436	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			41			496			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	5%	3%	8%	3%	3%	5%	5%	3%	4%	5%	0%
Adj. Flow (vph)	0	789	554	482	1001	553	328	589	496	443	767	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	789	554	482	1001	553	328	589	496	443	771	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		40.0		22.0	63.0		22.0	35.0		22.0	35.0	
Total Split (%)		33.3%		18.3%	52.5%		18.3%	29.2%		18.3%	29.2%	
Maximum Green (s)		34.0		16.0	57.0		16.0	29.0		16.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		32.7	53.5	16.0	54.7	76.7	14.8	31.3	120.0	16.0	32.5	
Actuated g/C Ratio		0.27	0.45	0.13	0.46	0.64	0.12	0.26	1.00	0.13	0.27	
v/c Ratio		0.84	0.75	1.12	0.63	0.54	0.80	0.66	0.32	0.99	0.83	
Control Delay		50.5	29.9	126.1	26.8	13.1	66.1	44.1	0.5	92.0	50.6	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		50.5	29.9	126.1	26.8	13.1	66.1	44.1	0.5	92.0	50.6	
LOS		D	C	F	C	B	E	D	A	F	D	
Approach Delay		42.0			46.6			33.9			65.7	
Approach LOS		D			D			C			E	
90th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
90th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
70th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		34.0		16.0	56.0		16.0	30.0		16.0	30.0	
50th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		33.8		16.0	55.8		14.3	30.2		16.0	31.9	
30th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
10th %ile Green (s)		27.5		16.0	49.5		11.7	36.5		16.0	40.8	
10th %ile Term Code		Gap		Max	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		299	289	~221	296	195	127	218	0	178	305	
Queue Length 95th (ft)		377	430	#328	366	286	178	283	0	#287	#415	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		1002	709	432	1664	965	444	897	1568	448	932	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		0.79	0.78	1.12	0.60	0.57	0.74	0.66	0.32	0.99	0.83	

Intersection Summary

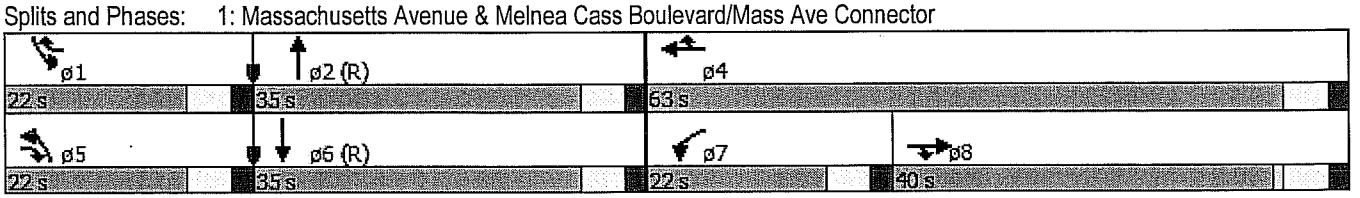
Area Type: Other

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 58 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 46.4 Intersection LOS: D
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15

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

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

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	139	0	132	0	0	0	80	300	0	1	492	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934										0.850
Flt Protected		0.975					0.950					
Satd. Flow (prot)	0	1696	0	0	0	0	1736	1810	0	0	1810	1524
Flt Permitted		0.975					0.370				0.848	
Satd. Flow (perm)	0	1696	0	0	0	0	676	1810	0	0	1535	1524
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98										98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	4%	5%	0%	0%	5%	6%
Adj. Flow (vph)	151	0	143	0	0	0	87	326	0	1	535	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	294	0	0	0	0	87	326	0	0	536	41
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA		Perm	NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	37.0	37.0					13.0			29.0	29.0	29.0
Total Split (%)	37.0%	37.0%					13.0%			29.0%	29.0%	29.0%
Maximum Green (s)	33.0	33.0					9.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		17.8					70.2	74.2			61.2	61.2
Actuated g/C Ratio		0.18					0.70	0.74			0.61	0.61
v/c Ratio		0.77					0.15	0.24			0.57	0.04
Control Delay		38.8					4.0	3.9			16.0	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		38.8					4.0	3.9			16.0	0.1
LOS		D					A	A			B	A
Approach Delay		38.8						3.9			14.9	
Approach LOS		D						A			B	
90th %ile Green (s)	25.9	25.9					9.0			53.1	53.1	53.1
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	21.1	21.1					9.0			57.9	57.9	57.9
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	17.7	17.7					9.0			61.3	61.3	61.3
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	14.3	14.3					9.0			64.7	64.7	64.7
30th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					9.0			69.0	69.0	69.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		121					10	36			187	0
Queue Length 95th (ft)		195					24	68			355	0
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		625					569	1343			939	970
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.47					0.15	0.24			0.57	0.04

Intersection Summary

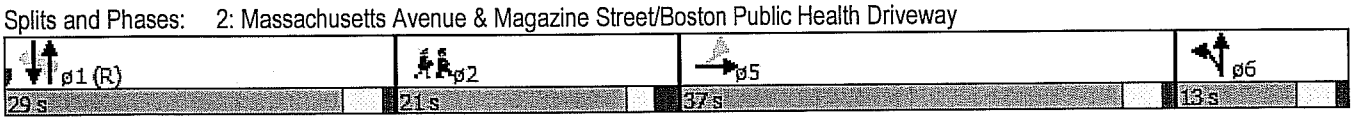
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 33 (33%), Referenced to phase 1:NBSB, Start of Green

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 16.8
Intersection LOS: B
Intersection Capacity Utilization 68.4%
ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	77	239	134	82	42	172	391	270	30	627	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	0		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.886			0.949				0.850		0.991	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1687	1651	0	1736	1876	0	1966	2029	1463	0	3678	0
Flt Permitted	0.950			0.950			0.334				0.922	
Satd. Flow (perm)	1687	1651	0	1736	1876	0	691	2029	1463	0	3398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		144			23				281		7	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	7%	5%	1%	4%	3%	11%	1%	3%	3%	13%	3%	5%
Adj. Flow (vph)	31	80	249	140	85	44	179	407	281	31	653	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	329	0	140	129	0	179	407	281	0	726	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	27.0	27.0		23.0	23.0		46.0	46.0	23.0	46.0	46.0	
Total Split (%)	27.0%	27.0%		23.0%	23.0%		46.0%	46.0%	23.0%	46.0%	46.0%	
Maximum Green (s)	22.0	22.0		18.0	18.0		40.0	40.0	18.0	40.0	40.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	16.0	16.0		12.8	12.8		55.2	55.2	74.0		55.2	
Actuated g/C Ratio	0.16	0.16		0.13	0.13		0.55	0.55	0.74		0.55	
v/c Ratio	0.12	0.86		0.63	0.50		0.47	0.36	0.24		0.39	
Control Delay	34.1	43.2		53.4	38.9		22.0	15.7	1.2		9.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	34.1	43.2		53.4	38.9		22.0	15.7	1.2		9.2	
LOS	C	D		D	D		C	B	A		A	
Approach Delay		42.4			46.4			12.3			9.2	
Approach LOS		D			D			B			A	
90th %ile Green (s)	22.0	22.0		18.0	18.0		44.0	44.0	18.0	44.0	44.0	
90th %ile Term Code	Max	Max		Max	Max		Coord	Coord	Max	Coord	Coord	
70th %ile Green (s)	20.3	20.3		15.4	15.4		48.3	48.3	15.4	48.3	48.3	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	16.6	16.6		12.4	12.4		55.0	55.0	12.4	55.0	55.0	
50th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
30th %ile Green (s)	12.9	12.9		10.3	10.3		60.8	60.8	10.3	60.8	60.8	
30th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		68.0	68.0	8.0	68.0	68.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	17	117		86	64		65	138	0		61	
Queue Length 95th (ft)	40	208		141	115		164	259	24		116	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)							115					
Base Capacity (vph)	371	475		312	356		381	1120	1150		1879	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.08	0.69		0.45	0.36		0.47	0.36	0.24		0.39	

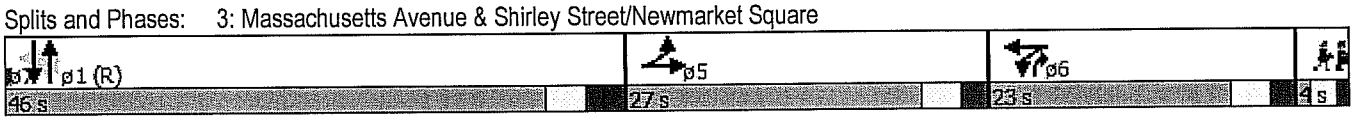
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 24 (24%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 20.3 Intersection LOS: C
Intersection Capacity Utilization 84.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	5.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	22	288	541	43	362	638
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	8	2	2	9	1	4
Mvmt Flow	23	297	558	44	373	658

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1655	301	0	0	602	0
Stage 1	580	-	-	-	-	-
Stage 2	1075	-	-	-	-	-
Critical Hdwy	6.96	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.96	-	-	-	-	-
Critical Hdwy Stg 2	5.96	-	-	-	-	-
Follow-up Hdwy	3.58	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	84	695	-	-	978	-
Stage 1	507	-	-	-	-	-
Stage 2	276	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	34	695	-	-	978	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	110	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	4.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	91	695	978	-
HCM Lane V/C Ratio	-	-	0.249	0.427	0.382	-
HCM Control Delay (s)	-	-	57.2	14	10.9	1.5
HCM Lane LOS	-	-	F	B	B	A
HCM 95th %tile Q(veh)	-	-	0.9	2.1	1.8	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	14	14	324	8	101	12	476	374	113	542	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.943			0.861			0.934			0.999	
Flt Protected		0.988		0.950			0.950			0.950		
Satd. Flow (prot)	0	3142	0	1770	1621	0	1504	3722	0	1770	1824	0
Flt Permitted		0.870		0.950			0.260			0.235		
Satd. Flow (perm)	0	2767	0	1770	1621	0	412	3722	0	438	1824	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			104			149				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	15%	0%	9%	2%	0%	1%	20%	4%	1%	2%	4%	13%
Adj. Flow (vph)	9	14	14	334	8	104	12	491	386	116	559	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	37	0	334	112	0	12	877	0	116	564	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		10.2		15.3	19.7		25.5	25.5		25.5	25.5	
Actuated g/C Ratio		0.18		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		1.00dr		0.70	0.18		0.06	0.50		0.59	0.69	
Control Delay		20.4		31.0	3.8		13.6	11.4		32.2	20.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		20.4		31.0	3.8		13.6	11.4		32.2	20.6	
LOS		C		C	A		B	B		C	C	
Approach Delay		20.4			24.2			11.4			22.6	
Approach LOS		C			C			B			C	
90th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	10.0		15.0	30.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Min		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		3		83	2		2	63		21	108	
Queue Length 95th (ft)		17		#258	25		14	171		#120	#364	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		685		479	1172		186	1762		197	823	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.05		0.70	0.10		0.06	0.50		0.59	0.69	

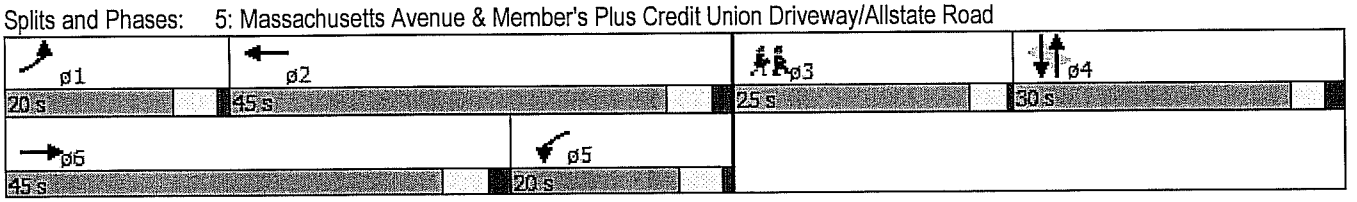
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 56.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 71.8% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 66
70th %ile Actuated Cycle: 66
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	192	128	0	2	195	0	153	4
Peak Hour Factor	0.92	0.93	0.93	0.92	0.93	0.93	0.92	0.93	0.93
Heavy Vehicles, %	2	1	1	2	0	0	2	1	17
Mvmt Flow	0	206	138	0	2	210	0	165	4
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	9.3	9.8	10.1
HCM LOS	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	97%	0%	0%	1%
Vol Thru, %	0%	100%	0%	99%
Vol Right, %	3%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	157	192	128	197
LT Vol	153	0	0	2
Through Vol	0	192	0	195
RT Vol	4	0	128	0
Lane Flow Rate	169	206	138	212
Geometry Grp	2	7	7	5
Degree of Util (X)	0.249	0.296	0.171	0.284
Departure Headway (Hd)	5.317	5.169	4.464	4.834
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	694	800	739
Service Time	3.374	2.915	2.21	2.885
HCM Lane V/C Ratio	0.251	0.297	0.172	0.287
HCM Control Delay	10.1	10.1	8.1	9.8
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1	1.2	0.6	1.2

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	44	197	566	16	77	802
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	3	0	3	6	2
Mvmt Flow	47	212	609	17	83	862

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1214	313	0	0	626	0
Stage 1	617	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Critical Hdwy	6.84	6.96	-	-	4.22	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.33	-	-	2.26	-
Pot Cap-1 Maneuver	174	680	-	-	925	-
Stage 1	501	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	144	680	-	-	925	-
Mov Cap-2 Maneuver	144	-	-	-	-	-
Stage 1	501	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.4	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	405	925	-
HCM Lane V/C Ratio	-	-	0.64	0.09	-
HCM Control Delay (s)	-	-	28.4	9.3	0.7
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	4.3	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	284	367	462	90	358	8	382	271	114	11	530	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.997			0.956			0.949	
Flt Protected	0.950				0.990		0.950				0.999	
Satd. Flow (prot)	3400	1792	1568	0	3415	0	3303	1774	0	0	3322	0
Flt Permitted	0.950				0.747		0.950				0.944	
Satd. Flow (perm)	3400	1792	1568	0	2577	0	3303	1774	0	0	3139	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			486		1			18			62	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	3%	6%	3%	6%	4%	0%	6%	3%	1%	4%	3%	3%
Adj. Flow (vph)	299	386	486	95	377	8	402	285	120	12	558	292
Shared Lane Traffic (%)												
Lane Group Flow (vph)	299	386	486	0	480	0	402	405	0	0	862	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	19.0		19.0	35.0	35.0		19.0			20.0	20.0	
Total Split (%)	15.8%		15.8%	29.2%	29.2%		15.8%			16.7%	16.7%	
Maximum Green (s)	15.0		15.0	30.0	30.0		15.0			15.0	15.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	14.5	76.0	96.0		57.5		15.0	35.0			15.0	
Actuated g/C Ratio	0.12	0.63	0.80		0.48		0.12	0.29			0.12	
v/c Ratio	0.73	0.34	0.36		0.39		0.98	0.76			1.93	
Control Delay	61.8	11.3	1.0		21.3		86.1	45.3			455.0	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	61.8	11.3	1.0		21.3		86.1	45.3			455.0	
LOS	E	B	A		C		F	D			F	
Approach Delay		19.9			21.3			65.7			455.0	
Approach LOS		B			C			E			F	
90th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	15.0		15.0	57.0	57.0		15.0			15.0	15.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	12.5		15.0	59.5	59.5		15.0			15.0	15.0	
10th %ile Term Code	Gap		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	115	130	0		122		163	285			~524	
Queue Length 95th (ft)	165	187	18		165		m#244	m377			#655	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	425	1127	1351		1235		412	530			446	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	0.70	0.34	0.36		0.39		0.98	0.76			1.93	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	23%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

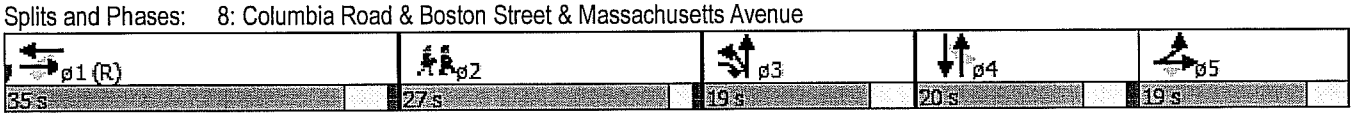
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.93
Intersection Signal Delay: 144.2 Intersection LOS: F
Intersection Capacity Utilization 93.0% ICU Level of Service F
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	439	46	263	385	79	60	186	307	141	203	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.974				0.850		0.970	
Flt Protected	0.950			0.950				0.988		0.950		
Satd. Flow (prot)	1641	3416	0	1641	3784	0	0	1742	1553	1736	1762	0
Flt Permitted	0.950			0.950				0.440		0.334		
Satd. Flow (perm)	1641	3416	0	1641	3784	0	0	776	1553	610	1762	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			20				327		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	10%	4%	6%	10%	6%	2%	4%	9%	4%	4%	5%	3%
Adj. Flow (vph)	26	467	49	280	410	84	64	198	327	150	216	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	516	0	280	494	0	0	262	327	150	271	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	34.0		22.0	41.0		29.0	29.0	22.0	29.0	29.0	
Total Split (%)	12.5%	28.3%		18.3%	34.2%		24.2%	24.2%	18.3%	24.2%	24.2%	
Maximum Green (s)	9.0	28.0		16.0	35.0		22.0	22.0	16.0	22.0	22.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.2	63.0		16.0	76.4			22.0	85.0	22.0	22.0	
Actuated g/C Ratio	0.07	0.52		0.13	0.64			0.18	0.71	0.18	0.18	
v/c Ratio	0.23	0.29		1.28	0.20			1.85	0.27	1.35	0.82	
Control Delay	41.5	19.0		200.1	9.8			435.5	1.2	244.5	66.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	41.5	19.0		200.1	9.8			435.5	1.2	244.5	66.3	
LOS	D	B		F	A			F	A	F	E	
Approach Delay		20.1			78.6			194.4			129.8	
Approach LOS		C			E			F			F	
90th %ile Green (s)	8.9	63.0		16.0	70.1		22.0	22.0	16.0	22.0	22.0	
90th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
70th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	63.0		16.0	71.0		22.0	22.0	16.0	22.0	22.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
30th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	63.0		16.0	85.0		22.0	22.0	16.0	22.0	22.0	
10th %ile Term Code	Skip	Coord		Max	Coord		Max	Max	Max	Max	Max	
Queue Length 50th (ft)	13	153		~275	85			~308	0	~152	197	
Queue Length 95th (ft)	m20	m136		#449	115			#477	25	#287	#337	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	123	1797		218	2417			142	1195	111	330	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.21	0.29		1.28	0.20			1.85	0.27	1.35	0.82	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	29%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

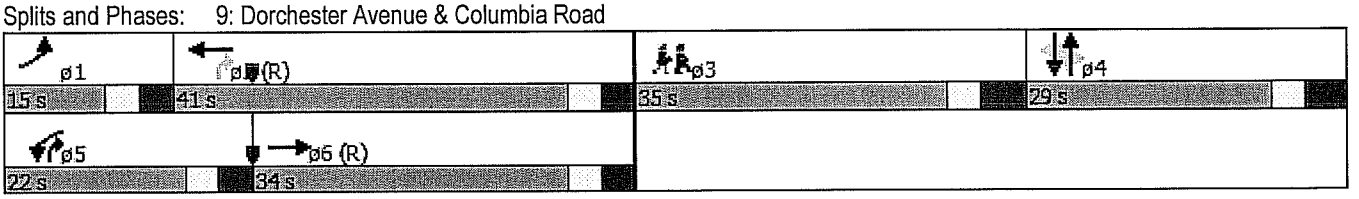
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 31 (26%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.85
Intersection Signal Delay: 103.5 Intersection LOS: F
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	60	42	44	411	439	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	3	9	0	5	0	4
Mvmt Flow	61	43	45	419	448	130

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1022	513	578	0	-	0
Stage 1	513	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Critical Hdwy	6.43	6.29	4.1	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.381	2.2	-	-	-
Pot Cap-1 Maneuver	260	548	1006	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	245	548	1006	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	567	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.8	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1006	-	317	-	-
HCM Lane V/C Ratio	0.045	-	0.328	-	-
HCM Control Delay (s)	8.7	0	21.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.4	-	-

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	56	0	31	0	0	0	13	401	30	50	539	51
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	16	0	8	0	0	0	14	7	4	3	5	20
Mvmt Flow	61	0	34	0	0	0	14	436	33	54	586	55

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1202	1219	614	641	0	0	468	0	0
Stage 1	722	722	-	-	-	-	-	-	-
Stage 2	480	497	-	-	-	-	-	-	-
Critical Hdwy	6.56	6.5	6.28	4.24	-	-	4.13	-	-
Critical Hdwy Stg 1	5.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.644	4	3.372	2.326	-	-	2.227	-	-
Pot Cap-1 Maneuver	191	182	481	888	-	-	1088	-	-
Stage 1	457	434	-	-	-	-	-	-	-
Stage 2	594	548	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	172	0	481	888	-	-	1088	-	-
Mov Cap-2 Maneuver	172	0	-	-	-	-	-	-	-
Stage 1	421	0	-	-	-	-	-	-	-
Stage 2	582	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.5	0.3	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	223	1088	-	-
HCM Lane V/C Ratio	0.016	-	-	0.424	0.05	-	-
HCM Control Delay (s)	9.1	0	-	32.5	8.5	0	-
HCM Lane LOS	A	A	-	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	2	0.2	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	112	25	244	0	0	0	0	444	8	7	438	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.864						0.998				
Flt Protected	0.950										0.999	
Satd. Flow (prot)	1770	1627	0	0	0	0	0	1791	0	0	1844	0
Flt Permitted	0.950										0.994	
Satd. Flow (perm)	1770	1627	0	0	0	0	0	1791	0	0	1834	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		254						1				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	0%	6%	0%	0%	3%	0%
Adj. Flow (vph)	117	26	254	0	0	0	0	462	8	7	456	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	117	280	0	0	0	0	0	470	0	0	463	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	30.0	30.0						50.0		50.0	50.0	
Total Split (%)	29.7%	29.7%						49.5%		49.5%	49.5%	
Maximum Green (s)	25.0	25.0						45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.4	9.4						45.0			45.0	
Actuated g/C Ratio	0.15	0.15						0.70			0.70	
v/c Ratio	0.46	0.62						0.38			0.36	
Control Delay	31.1	11.6						5.3			5.1	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	31.1	11.6						5.3			5.1	
LOS	C	B						A			A	
Approach Delay		17.4						5.3			5.1	
Approach LOS		B						A			A	
90th %ile Green (s)	12.8	12.8						45.0		45.0	45.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	9.8	9.8						45.0		45.0	45.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	8.5	8.5						45.0		45.0	45.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						45.0		45.0	45.0	
10th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
Queue Length 50th (ft)	43	9						55			54	
Queue Length 95th (ft)	86	69						121			117	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	687	787						1252			1282	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.17	0.36						0.38			0.36	

Intersection Summary

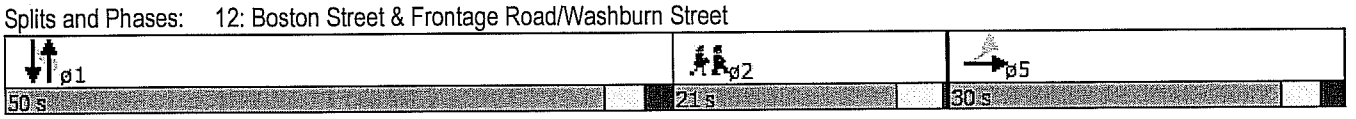
Area Type: Other
Cycle Length: 101
Actuated Cycle Length: 64.4
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	21%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 8.8
Intersection LOS: A
Intersection Capacity Utilization 53.4%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 67.8
70th %ile Actuated Cycle: 64.8
50th %ile Actuated Cycle: 63.5
30th %ile Actuated Cycle: 63
10th %ile Actuated Cycle: 63

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	81	169	191	39	24	13	42	210	18	4	3	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.963					0.989				
Flt Protected		0.950						0.991				
Satd. Flow (prot)	0	1787	1757	0	0	0	0	3379	0	0	0	0
Flt Permitted		0.377						0.797				
Satd. Flow (perm)	0	709	1757	0	0	0	0	2718	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			3					1				
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	1%	1%	4%	3%	7%	9%	3%	5%	0%	14%	20%	6%
Adj. Flow (vph)	83	172	195	40	24	13	43	214	18	4	3	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	255	259	0	0	0	0	292	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	104	73	19	10	30	160	114	65	189	196	117	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.952					0.929					0.985	
Flt Protected	0.984					0.995					0.967	
Satd. Flow (prot)	3205	0	0	0	0	2994	0	0	0	0	3262	0
Flt Permitted	0.652					0.868					0.967	
Satd. Flow (perm)	2124	0	0	0	0	2612	0	0	0	0	3262	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	4					15					1	
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	10%	3%	33%	13%	6%	8%	27%	9%	3%	5%	3%
Adj. Flow (vph)	106	74	19	10	31	163	116	66	193	200	119	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	293	0	0	0	0	386	0	0	0	0	567	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	9	4	54	184	158	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.936		
Flt Protected				0.993		
Satd. Flow (prot)	0	0	0	3204	0	0
Flt Permitted				0.993		
Satd. Flow (perm)	0	0	0	3204	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				3		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	20%	4%	5%	5%	0%
Adj. Flow (vph)	9	4	55	188	161	24
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	432	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		31.4	35.4					18.4				
Actuated g/C Ratio		0.21	0.24					0.12				
v/c Ratio		1.12	0.62					0.87				
Control Delay		144.0	58.0					89.5				
Queue Delay		0.0	0.0					0.0				
Total Delay		144.0	58.0					89.5				
LOS		F	E					F				
Approach Delay			100.6					89.5				
Approach LOS			F					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.2	36.2
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			16.2	16.2	16.2			46.6	46.6
10th %ile Term Code	Max	Max	Max			Gap	Gap	Gap			Coord	Coord
Queue Length 50th (ft)		~251	225					148				
Queue Length 95th (ft)		#366	325					#228				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		227	417					345				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.12	0.62					0.85				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	38.2					38.2					29.0	
Actuated g/C Ratio	0.25					0.25					0.19	
v/c Ratio	0.54					0.57					1.19dl	
Control Delay	52.8					51.4					76.9	
Queue Delay	0.0					0.0					0.0	
Total Delay	52.8					51.4					76.9	
LOS	D					D					E	
Approach Delay	52.8					51.4					76.9	
Approach LOS	D					D					E	
90th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
70th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
50th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
50th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
30th %ile Green (s)	36.2			36.2	36.2	36.2			29.8	29.8	29.8	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	46.6			46.6	46.6	46.6			25.1	25.1	25.1	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	132					171					285	
Queue Length 95th (ft)	185					230					#380	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	543					675					653	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.54					0.57					0.87	

Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				22.4		
Actuated g/C Ratio				0.15		
v/c Ratio				0.90		
Control Delay				84.3		
Queue Delay				0.0		
Total Delay				84.3		
LOS				F		
Approach Delay				84.3		
Approach LOS				F		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		23.0	23.0	23.0		
50th %ile Term Code		Max	Max	Max		
30th %ile Green (s)		23.0	23.0	23.0		
30th %ile Term Code		Max	Max	Max		
10th %ile Green (s)		20.1	20.1	20.1		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				219		
Queue Length 95th (ft)				#311		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				493		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.88		

Intersection Summary

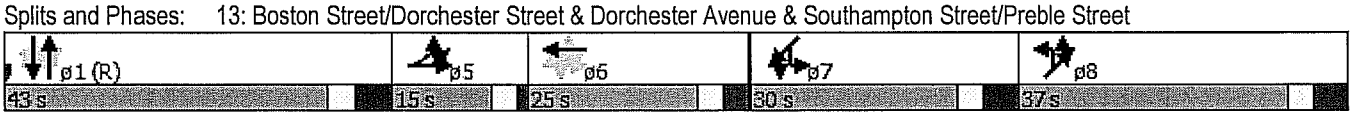
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 77.8 Intersection LOS: E
Intersection Capacity Utilization 102.9% ICU Level of Service G
Analysis Period (min) 15

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	511	0	0	547	308	235	18	90	0	0	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.998					0.950	0.959				
Satd. Flow (prot)	1504	1938	0	0	3438	1711	1796	1653	1759	0	0	1808
Flt Permitted	0.950	0.998					0.950	0.959				
Satd. Flow (perm)	1504	1938	0	0	3438	1711	1796	1653	1759	0	0	1808
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						100			91			178
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	14%	5%	0%	0%	5%	7%	5%	3%	1%	0%	0%	3%
Adj. Flow (vph)	199	532	0	0	570	321	245	19	94	0	0	15
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	179	552	0	0	570	321	132	132	94	0	0	15
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

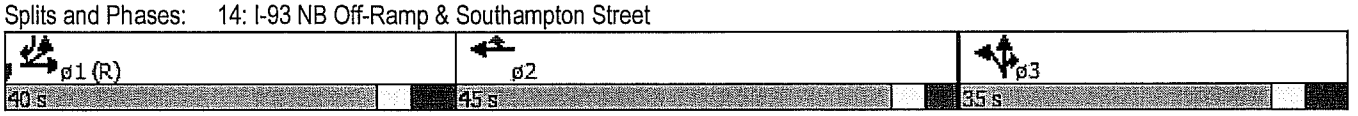
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	40.0	40.0			45.0	45.0	35.0	35.0	35.0			40.0
Total Split (%)	33.3%	33.3%			37.5%	37.5%	29.2%	29.2%	29.2%			33.3%
Maximum Green (s)	33.0	33.0			39.0	39.0	28.0	28.0	28.0			33.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	46.8	46.8			39.0	39.0	14.2	14.2	14.2			46.8
Actuated g/C Ratio	0.39	0.39			0.32	0.32	0.12	0.12	0.12			0.39
v/c Ratio	0.30	0.73			0.51	0.52	0.63	0.68	0.33			0.02
Control Delay	28.4	39.1			34.7	25.4	62.5	67.2	12.8			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	28.4	39.1			34.7	25.4	62.5	67.2	12.8			0.1
LOS	C	D			C	C	E	E	B			A
Approach Delay		36.5			31.4			51.2				
Approach LOS		D			C			D				
90th %ile Green (s)	40.3	40.3			39.0	39.0	20.7	20.7	20.7			40.3
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
70th %ile Green (s)	44.6	44.6			39.0	39.0	16.4	16.4	16.4			44.6
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	47.0	47.0			39.0	39.0	14.0	14.0	14.0			47.0
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	49.4	49.4			39.0	39.0	11.6	11.6	11.6			49.4
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	52.9	52.9			39.0	39.0	8.1	8.1	8.1			52.9
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	100	377			187	137	104	105	2			0
Queue Length 95th (ft)	177	#614			244	228	164	166	49			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	587	756			1117	623	419	385	480			814
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.30	0.73			0.51	0.52	0.32	0.34	0.20			0.02

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120

Offset: 5 (4%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 36.6 Intersection LOS: D
Intersection Capacity Utilization 69.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	79	0	0	211	155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	4	6
Mvmt Flow	0	88	0	0	234	172

Major/Minor	Minor2		Major2	
Conflicting Flow All	234	234	-	0
Stage 1	234	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.21	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.309	-	-
Pot Cap-1 Maneuver	725	808	-	-
Stage 1	774	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	725	808	-	-
Mov Cap-2 Maneuver	725	-	-	-
Stage 1	774	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	10	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	808	-	-
HCM Lane V/C Ratio	0.109	-	-
HCM Control Delay (s)	10	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	116	0	0	876	0	0	517
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3471	0	0	2787
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3471	0	0	2787
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	0%	0%	4%	0%	0%	2%
Adj. Flow (vph)	0	123	0	0	932	0	0	550
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	123	0	0	932	0	0	550
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

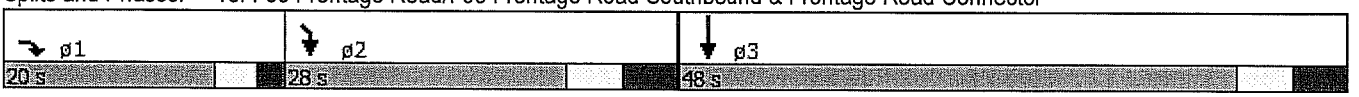
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.2			40.0			20.0
Actuated g/C Ratio		0.09			0.45			0.22
v/c Ratio		0.43			0.60			0.88
Control Delay		9.5			20.6			51.0
Queue Delay		0.0			0.0			0.0
Total Delay		9.5			20.6			51.0
LOS		A			C			D
Approach Delay					20.6			
Approach LOS					C			
90th %ile Green (s)		9.1			40.0			20.0
90th %ile Term Code		Gap			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		8.0			40.0			20.0
10th %ile Term Code		Min			MaxR			MaxR
Queue Length 50th (ft)		0			200			170
Queue Length 95th (ft)		36			267			#275
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		396			1556			624
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.31			0.60			0.88

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 89.2
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 30.2 Intersection LOS: C

Intersection Capacity Utilization 67.0%
ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 90.1
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 89
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: I-93 Frontage Road/I-93 Frontage Road Southbound & Frontage Road Connector



Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Lane Configurations												
Volume (vph)	480	457	182	22	262	504	111	0	218	8	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	16	12	12	
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	
Frt	0.914							0.850				
Flt Protected						0.982	0.950					
Satd. Flow (prot)	3195	0	0	0	0	3392	1752	1527	0	0	1900	
Flt Permitted						0.508	0.757					
Satd. Flow (perm)	3195	0	0	0	0	1755	1396	1527	0	0	1900	
Right Turn on Red			Yes							Yes		
Satd. Flow (RTOR)	24							158				
Link Speed (mph)	30					30		30			30	
Link Distance (ft)	494					738		733			242	
Travel Time (s)	11.2					16.8		16.7			5.5	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Heavy Vehicles (%)	5%	2%	2%	11%	3%	5%	3%	0%	6%	0%	0%	
Adj. Flow (vph)	490	466	186	22	267	514	113	0	222	8	1	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1142	0	0	0	0	803	113	230	0	0	1	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Right	Left	Left	Left	Left	Left	Right	Right	Left	
Median Width(ft)	0					0		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	0.85	1.00	1.00	
Turning Speed (mph)		9	9	15	15		15		9	9		
Number of Detectors	2			1	1	2	1	2			2	
Detector Template	Thru			Left	Left	Thru	Left	Thru			Thru	
Leading Detector (ft)	100			20	20	100	20	100			100	
Trailing Detector (ft)	0			0	0	0	0	0			0	
Detector 1 Position(ft)	0			0	0	0	0	0			0	
Detector 1 Size(ft)	6			20	20	6	20	6			6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)	94					94		94			94	
Detector 2 Size(ft)	6					6		6			6	
Detector 2 Type	Cl+Ex					Cl+Ex		Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0		0.0			0.0	
Turn Type	NA			pm+pt	pm+pt	NA	Perm	NA			NA	
Protected Phases	1			4	4	1 4		3			3	2
Permitted Phases				1 4	1 4		3					
Detector Phase	1			4	4	1 4	3	3			3	
Switch Phase												

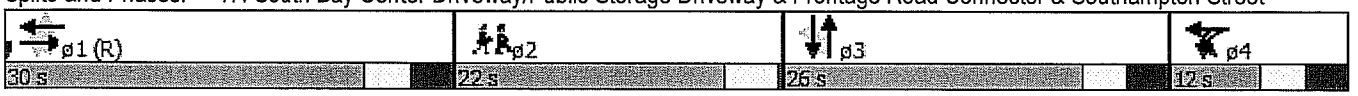
Lane Group	EBT	EBR	EBR2	WBL2	WBL	WBT	NBL	NBT	NBR	NBR2	SBT	ø2
Minimum Initial (s)	10.0			5.0	5.0		5.0	5.0			5.0	4.0
Minimum Split (s)	16.0			11.0	11.0		11.0	11.0			11.0	22.0
Total Split (s)	30.0			12.0	12.0		26.0	26.0			26.0	22.0
Total Split (%)	33.3%			13.3%	13.3%		28.9%	28.9%			28.9%	24%
Maximum Green (s)	24.0			6.0	6.0		20.0	20.0			20.0	18.0
Yellow Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	3.5
All-Red Time (s)	3.0			3.0	3.0		3.0	3.0			3.0	0.5
Lost Time Adjust (s)	0.0						0.0	0.0			0.0	
Total Lost Time (s)	6.0						6.0	6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0			2.0	2.0		2.0	2.0			2.0	2.0
Recall Mode	C-Max			None	None		None	None			None	None
Walk Time (s)												5.0
Flash Dont Walk (s)												13.0
Pedestrian Calls (#/hr)												0
Act Effct Green (s)	54.4					60.4	11.6	11.6			11.6	
Actuated g/C Ratio	0.60					0.67	0.13	0.13			0.13	
v/c Ratio	0.59					0.87dl	0.63	0.69			0.00	
Control Delay	12.9					8.7	51.6	23.5			31.0	
Queue Delay	0.0					0.0	0.0	0.0			0.0	
Total Delay	12.9					8.7	51.6	23.5			31.0	
LOS	B					A	D	C			C	
Approach Delay	12.9					8.7		32.8			31.0	
Approach LOS	B					A		C			C	
90th %ile Green (s)	48.9			6.0	6.0		17.1	17.1			17.1	0.0
90th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
70th %ile Green (s)	52.1			6.0	6.0		13.9	13.9			13.9	0.0
70th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
50th %ile Green (s)	54.4			6.0	6.0		11.6	11.6			11.6	0.0
50th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
30th %ile Green (s)	56.6			6.0	6.0		9.4	9.4			9.4	0.0
30th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
10th %ile Green (s)	59.8			6.0	6.0		6.2	6.2			6.2	0.0
10th %ile Term Code	Coord			Max	Max		Gap	Gap			Gap	Skip
Queue Length 50th (ft)	187					67	62	38			1	
Queue Length 95th (ft)	292					117	110	107			5	
Internal Link Dist (ft)	414					658		653			162	
Turn Bay Length (ft)												
Base Capacity (vph)	1939					1286	310	462			422	
Starvation Cap Reductn	0					0	0	0			0	
Spillback Cap Reductn	0					0	0	0			0	
Storage Cap Reductn	0					0	0	0			0	
Reduced v/c Ratio	0.59					0.62	0.36	0.50			0.00	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 14.4 Intersection LOS: B
Intersection Capacity Utilization 85.0% ICU Level of Service E
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	77	0	0	0	69	756
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.996
Satd. Flow (prot)	3662	0	0	0	0	3878
Flt Permitted	0.950					0.996
Satd. Flow (perm)	3662	0	0	0	0	3878
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	0	0	0	75	822
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	0	0	0	0	897
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	35.0				55.0	55.0
Total Split (%)	38.9%				61.1%	61.1%
Maximum Green (s)	30.0				50.0	50.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					74.0
Actuated g/C Ratio	0.11					0.82
v/c Ratio	0.21					0.28
Control Delay	59.4					2.8
Queue Delay	0.0					0.0
Total Delay	59.4					2.8
LOS	E					A
Approach Delay	59.4					2.8
Approach LOS	E					A
90th %ile Green (s)	10.0				70.0	70.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				70.0	70.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				70.0	70.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				70.0	70.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				85.0	85.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	25					60
Queue Length 95th (ft)	50					77
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	1220					3188
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.07					0.28

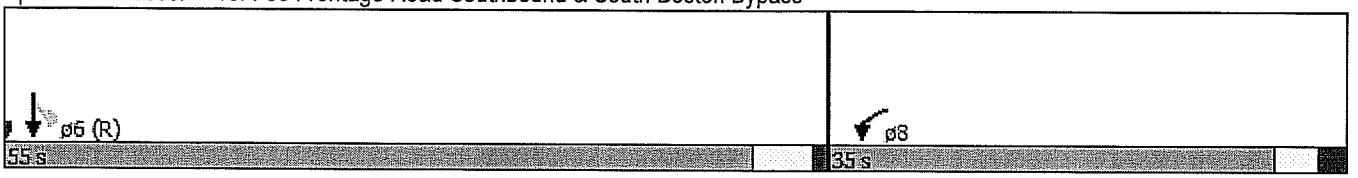
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.28

Intersection Signal Delay: 7.6
Intersection Capacity Utilization 39.6%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	26	0	0	56	116	21	1291	165	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.899			0.983				
Flt Protected		0.970						0.999				
Satd. Flow (prot)	0	3891	0	0	3288	0	0	5327	0	0	0	0
Flt Permitted		0.708						0.999				
Satd. Flow (perm)	0	2840	0	0	3288	0	0	5327	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					47			44				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	28	0	0	61	126	23	1403	179	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	75	0	0	187	0	0	1605	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	30.0	30.0			30.0		60.0	60.0				
Total Split (%)	33.3%	33.3%			33.3%		66.7%	66.7%				
Maximum Green (s)	22.0	22.0			22.0		54.0	54.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			56.0				
Actuated g/C Ratio		0.22			0.22			0.62				
v/c Ratio		0.12			0.24			0.48				
Control Delay		35.1			22.3			9.5				
Queue Delay		0.0			0.0			0.0				
Total Delay		35.1			22.3			9.5				
LOS		D			C			A				
Approach Delay		35.1			22.3			9.5				
Approach LOS		D			C			A				
90th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		56.0	56.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		20			34			158				
Queue Length 95th (ft)		41			63			191				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		694			839			3331				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.11			0.22			0.48				

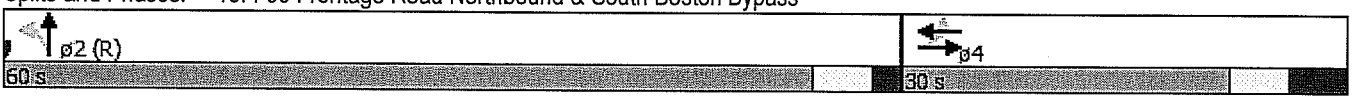
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 75 (83%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8
Intersection Capacity Utilization 77.5%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service D

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	945	331	244	957	506	355	639	436	421	531	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		250	250		0	0		0
Storage Lanes	0		1	2		1	1		1	2		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	0.95
Frt			0.850			0.850			0.850		0.996	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3429	0
Flt Permitted				0.950			0.950			0.950		
Satd. Flow (perm)	0	3505	1568	3155	3505	1568	3433	3505	1495	3367	3429	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89			39			445		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1050			705			288			406	
Travel Time (s)		23.9			16.0			6.5			9.2	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	0%	3%	3%	11%	3%	3%	2%	3%	8%	4%	5%	0%
Adj. Flow (vph)	0	964	338	249	977	516	362	652	445	430	542	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	964	338	249	977	516	362	652	445	430	558	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)		24			24			24			24	
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
Number of Detectors		2	1	1	2	1	1	2	1	1	2	
Detector Template		Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)		100	20	20	100	20	20	100	20	20	100	
Trailing Detector (ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Position(ft)		0	0	0	0	0	0	0	0	0	0	
Detector 1 Size(ft)		6	20	20	6	20	20	6	20	20	6	
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type		NA	pt+ov	Prot	NA	pt+ov	Prot	NA	Free	Prot	NA	
Protected Phases		8	8 5	7	4	4 1	5	2		1	6	
Permitted Phases									Free			

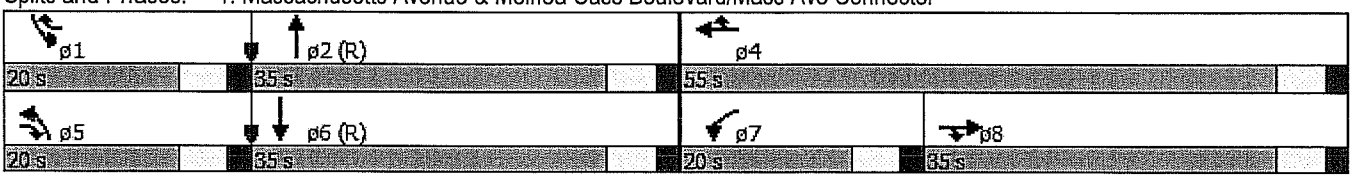
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		8	8 5	7	4	4 1	5	2		1	6	
Switch Phase												
Minimum Initial (s)		8.0		8.0	8.0		8.0	8.0		8.0	8.0	
Minimum Split (s)		29.0		14.0	29.0		14.0	29.0		14.0	31.0	
Total Split (s)		35.0		20.0	55.0		20.0	35.0		20.0	35.0	
Total Split (%)		31.8%		18.2%	50.0%		18.2%	31.8%		18.2%	31.8%	
Maximum Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag		Lag		Lead			Lead	Lag		Lead	Lag	
Lead-Lag Optimize?		Yes		Yes			Yes	Yes		Yes	Yes	
Vehicle Extension (s)		2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode		None		None	None		None	C-Max		None	C-Max	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		16.0			16.0			16.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)		29.0	48.6	12.3	47.3	67.3	13.6	30.7	110.0	14.0	31.1	
Actuated g/C Ratio		0.26	0.44	0.11	0.43	0.61	0.12	0.28	1.00	0.13	0.28	
v/c Ratio		1.04	0.46	0.71	0.65	0.53	0.85	0.67	0.30	1.00	0.57	
Control Delay		81.5	17.6	58.4	27.0	13.3	66.9	39.4	0.5	93.2	36.9	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		81.5	17.6	58.4	27.0	13.3	66.9	39.4	0.5	93.2	36.9	
LOS		F	B	E	C	B	E	D	A	F	D	
Approach Delay		64.9			27.4			34.4			61.4	
Approach LOS		E			C			C			E	
90th %ile Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
90th %ile Term Code		Max		Max	Max		Max	Coord		Max	Coord	
70th %ile Green (s)		29.0		14.0	49.0		14.0	29.0		14.0	29.0	
70th %ile Term Code		Max		Max	Hold		Max	Coord		Max	Coord	
50th %ile Green (s)		29.0		13.0	48.0		14.0	30.0		14.0	30.0	
50th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
30th %ile Green (s)		29.0		11.4	46.4		14.0	31.6		14.0	31.6	
30th %ile Term Code		Max		Gap	Hold		Max	Coord		Max	Coord	
10th %ile Green (s)		29.0		9.0	44.0		12.0	34.0		14.0	36.0	
10th %ile Term Code		Max		Gap	Hold		Gap	Coord		Max	Coord	
Queue Length 50th (ft)		~388	117	88	277	176	130	216	0	~159	179	
Queue Length 95th (ft)		#517	195	129	341	256	#204	285	0	#264	241	
Internal Link Dist (ft)		970			625			208			326	
Turn Bay Length (ft)			300			250	250					
Base Capacity (vph)		924	747	401	1561	948	436	978	1495	428	972	
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio		1.04	0.45	0.62	0.63	0.54	0.83	0.67	0.30	1.00	0.57	

Intersection Summary

Area Type: Other

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 100 (91%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 44.3 Intersection LOS: D
Intersection Capacity Utilization 82.8% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Massachusetts Avenue & Melnea Cass Boulevard/Mass Ave Connector



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	0	132	0	0	0	104	377	0	0	501	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919										0.850
Flt Protected		0.980					0.950					
Satd. Flow (prot)	0	1668	0	0	0	0	1752	1845	0	0	1827	1583
Flt Permitted		0.980					0.391					
Satd. Flow (perm)	0	1668	0	0	0	0	721	1845	0	0	1827	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		109										109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		456			304			544			804	
Travel Time (s)		10.4			6.9			12.4			18.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	0%	1%	0%	0%	0%	3%	3%	0%	0%	4%	2%
Adj. Flow (vph)	92	0	138	0	0	0	108	393	0	0	522	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	0	0	0	0	108	393	0	0	522	51
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)		0			0			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
Number of Detectors	1	2					1	2		1	2	1
Detector Template	Left	Thru					Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100					20	100		20	100	20
Trailing Detector (ft)	0	0					0	0		0	0	0
Detector 1 Position(ft)	0	0					0	0		0	0	0
Detector 1 Size(ft)	20	6					20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0					0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA					D.P+P	NA			NA	Perm
Protected Phases		5					6	1 6			1	
Permitted Phases	5						1			1		1
Detector Phase	5	5					6	1 6		1	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0					8.0			20.0	20.0	20.0

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	17.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	14.0	14.0					12.0			24.0	24.0	24.0
Total Split (s)	28.0	28.0					12.0			29.0	29.0	29.0
Total Split (%)	31.1%	31.1%					13.3%			32.2%	32.2%	32.2%
Maximum Green (s)	24.0	24.0					8.0			25.0	25.0	25.0
Yellow Time (s)	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
Lost Time Adjust (s)		0.0					0.0				0.0	0.0
Total Lost Time (s)		4.0					4.0				4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0					3.0			2.0	2.0	2.0
Recall Mode	None	None					Max			C-Max	C-Max	C-Max
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		13.3					64.7	68.7			56.7	56.7
Actuated g/C Ratio		0.15					0.72	0.76			0.63	0.63
v/c Ratio		0.68					0.18	0.28			0.45	0.05
Control Delay		28.7					2.8	2.7			10.9	0.1
Queue Delay		0.0					0.0	0.0			0.0	0.0
Total Delay		28.7					2.8	2.7			10.9	0.1
LOS		C					A	A			B	A
Approach Delay		28.7						2.7			10.0	
Approach LOS		C						A			A	
90th %ile Green (s)	19.2	19.2					8.0			50.8	50.8	50.8
90th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
70th %ile Green (s)	15.1	15.1					8.0			54.9	54.9	54.9
70th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
50th %ile Green (s)	12.3	12.3					8.0			57.7	57.7	57.7
50th %ile Term Code	Gap	Gap					MaxR			Coord	Coord	Coord
30th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
30th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
10th %ile Green (s)	10.0	10.0					8.0			60.0	60.0	60.0
10th %ile Term Code	Min	Min					MaxR			Coord	Coord	Coord
Queue Length 50th (ft)		65					7	26			134	0
Queue Length 95th (ft)		131					18	50			252	1
Internal Link Dist (ft)		376			224			464			724	
Turn Bay Length (ft)												
Base Capacity (vph)		524					609	1408			1150	1037
Starvation Cap Reductn		0					0	0			0	0
Spillback Cap Reductn		0					0	0			0	0
Storage Cap Reductn		0					0	0			0	0
Reduced v/c Ratio		0.44					0.18	0.28			0.45	0.05

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 33 (37%), Referenced to phase 1:NBSB, Start of Green

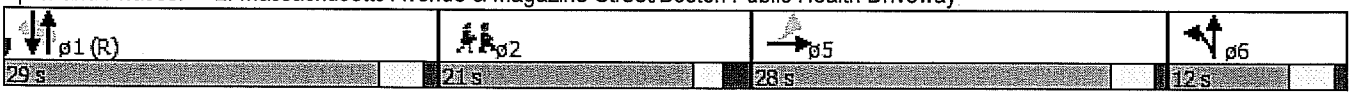
Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	2.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 10.5
Intersection Capacity Utilization 69.2%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service C

Splits and Phases: 2: Massachusetts Avenue & Magazine Street/Boston Public Health Driveway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	63	253	45	53	28	177	480	314	29	604	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	15	15	15	15	10	14	14	14
Storage Length (ft)	0		0	100		0	115		0	0		0
Storage Lanes	1		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	0.95	0.95	0.95
Frt		0.880			0.948				0.850		0.989	
Flt Protected	0.950			0.950			0.950				0.998	
Satd. Flow (prot)	1770	1669	0	1752	1880	0	1947	2029	1463	0	3684	0
Flt Permitted	0.950			0.950			0.329				0.915	
Satd. Flow (perm)	1770	1669	0	1752	1880	0	674	2029	1463	0	3378	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		206			26				349		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		493			454			421			544	
Travel Time (s)		11.2			10.3			9.6			12.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	1%	0%	3%	3%	10%	2%	3%	3%	12%	3%	0%
Adj. Flow (vph)	29	70	281	50	59	31	197	533	349	32	671	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	351	0	50	90	0	197	533	349	0	756	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			15			15	
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	0.88	0.88	0.88	0.88	1.09	0.92	0.92	0.92
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Split	NA		Split	NA		Perm	NA	pm+ov	Perm	NA	
Protected Phases	5	5		6	6			1	6		1	

Lane Group	ø7
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							1		1	1		
Detector Phase	5	5		6	6		1	1	6	1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	8.0	8.0	8.0	
Minimum Split (s)	18.0	18.0		13.0	13.0		32.0	32.0	13.0	32.0	32.0	
Total Split (s)	25.0	25.0		23.0	23.0		38.0	38.0	23.0	38.0	38.0	
Total Split (%)	27.8%	27.8%		25.6%	25.6%		42.2%	42.2%	25.6%	42.2%	42.2%	
Maximum Green (s)	20.0	20.0		18.0	18.0		32.0	32.0	18.0	32.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	2.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	5.0		6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max	None	C-Max	C-Max	
Walk Time (s)	7.0	7.0					15.0	15.0		15.0	15.0	
Flash Dont Walk (s)	6.0	6.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)	13.6	13.6		9.2	9.2		51.2	51.2	66.4		51.2	
Actuated g/C Ratio	0.15	0.15		0.10	0.10		0.57	0.57	0.74		0.57	
v/c Ratio	0.11	0.82		0.28	0.42		0.51	0.46	0.30		0.39	
Control Delay	31.2	31.0		40.8	33.6		20.3	14.4	1.3		8.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	31.2	31.0		40.8	33.6		20.3	14.4	1.3		8.7	
LOS	C	C		D	C		C	B	A		A	
Approach Delay		31.0			36.2			11.2			8.7	
Approach LOS		C			D			B			A	
90th %ile Green (s)	20.0	20.0		12.1	12.1		41.9	41.9	12.1	41.9	41.9	
90th %ile Term Code	Max	Max		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
70th %ile Green (s)	17.0	17.0		9.9	9.9		47.1	47.1	9.9	47.1	47.1	
70th %ile Term Code	Gap	Gap		Gap	Gap		Coord	Coord	Gap	Coord	Coord	
50th %ile Green (s)	13.3	13.3		8.0	8.0		52.7	52.7	8.0	52.7	52.7	
50th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
30th %ile Green (s)	9.5	9.5		8.0	8.0		56.5	56.5	8.0	56.5	56.5	
30th %ile Term Code	Gap	Gap		Min	Min		Coord	Coord	Min	Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		58.0	58.0	8.0	58.0	58.0	
10th %ile Term Code	Min	Min		Min	Min		Coord	Coord	Min	Coord	Coord	
Queue Length 50th (ft)	14	79		27	35		61	157	0		72	
Queue Length 95th (ft)	36	167		60	78		167	310	26		103	
Internal Link Dist (ft)		413			374			341			464	
Turn Bay Length (ft)				100			115					
Base Capacity (vph)	393	531		350	396		383	1155	1171		1927	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.07	0.66		0.14	0.23		0.51	0.46	0.30		0.39	

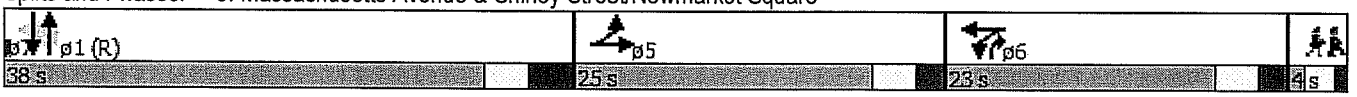
Intersection Summary

Lane Group	ø7
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	4.0
Total Split (s)	4.0
Total Split (%)	4%
Maximum Green (s)	1.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	0.5
Flash Dont Walk (s)	0.5
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 1:NBSB, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 88.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Massachusetts Avenue & Shirley Street/Newmarket Square



Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	14	322	647	76	444	456
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	25	0	-	-	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	5	1	3
Mvmt Flow	15	350	703	83	483	496

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1958	393	0	0	786	0
Stage 1	745	-	-	-	-	-
Stage 2	1213	-	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	57	606	-	-	835	-
Stage 1	435	-	-	-	-	-
Stage 2	248	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 12	606	-	-	835	-
Mov Cap-2 Maneuver	43	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	50	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.3	0	8.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	43	606	835	-
HCM Lane V/C Ratio	-	-	0.354	0.578	0.578	-
HCM Control Delay (s)	-	-	129	18.7	15	2
HCM Lane LOS	-	-	F	C	C	A
HCM 95th %tile Q(veh)	-	-	1.2	3.7	3.8	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	0	343	2	208	2	472	461	134	341	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	16	16	12	12	12
Storage Length (ft)	0		0	0		0	250		0	0		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt					0.851			0.926			0.999	
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	3429	0	1770	1578	0	1203	3714	0	1787	1861	0
Flt Permitted		0.833		0.950			0.458			0.184		
Satd. Flow (perm)	0	3007	0	1770	1578	0	580	3714	0	346	1861	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					219			186				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		524			634			603			398	
Travel Time (s)		11.9			14.4			13.7			9.0	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	2%	50%	2%	50%	3%	1%	1%	2%	0%
Adj. Flow (vph)	3	0	0	361	2	219	2	497	485	141	359	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	361	221	0	2	982	0	141	362	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	0.85	0.85	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4			4		
Detector Phase	1	6		5	2		4	4		4	4	
Switch Phase												
Minimum Initial (s)	6.0	10.0		6.0	10.0		6.0	6.0		6.0	6.0	
Minimum Split (s)	11.0	16.0		11.0	16.0		11.0	11.0		11.0	11.0	
Total Split (s)	20.0	45.0		20.0	45.0		30.0	30.0		30.0	30.0	
Total Split (%)	16.7%	37.5%		16.7%	37.5%		25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	15.0	39.0		15.0	39.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	2.0		1.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.0		5.0	6.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	None		None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		28.0		16.0	20.5		26.7	26.7		26.7	26.7	
Actuated g/C Ratio		0.47		0.27	0.35		0.45	0.45		0.45	0.45	
v/c Ratio		0.01		0.75	0.32		0.01	0.55		0.90	0.43	
Control Delay		9.7		35.5	3.0		17.5	14.1		75.6	17.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		9.7		35.5	3.0		17.5	14.1		75.6	17.6	
LOS		A		D	A		B	B		E	B	
Approach Delay		9.7			23.1			14.1			33.9	
Approach LOS		A			C			B			C	
90th %ile Green (s)	0.0	39.0		15.0	59.0		25.0	25.0		25.0	25.0	
90th %ile Term Code	Skip	Max		Max	Hold		Max	Max		Max	Max	
70th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
70th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
50th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
50th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
30th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
30th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
10th %ile Green (s)	0.0	0.0		15.0	14.0		25.0	25.0		25.0	25.0	
10th %ile Term Code	Skip	Skip		Max	Hold		Max	Max		Max	Max	
Queue Length 50th (ft)		0		91	0		0	70		31	59	
Queue Length 95th (ft)		3		#453	26		6	#360		#240	#313	
Internal Link Dist (ft)		444			554			523			318	
Turn Bay Length (ft)							250					
Base Capacity (vph)		852		481	1236		262	1783		157	842	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.00		0.75	0.18		0.01	0.55		0.90	0.43	

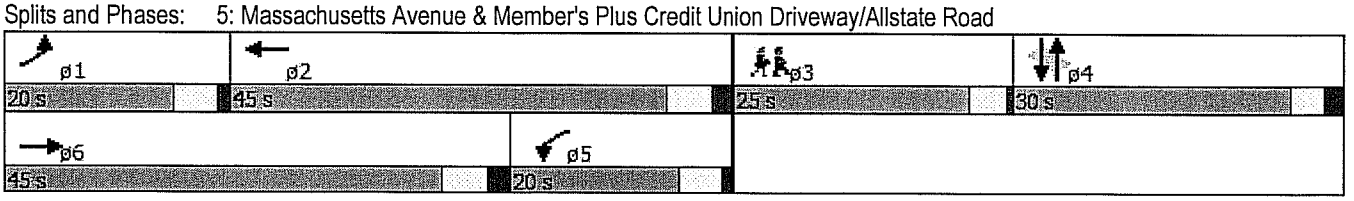
Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	25.0
Total Split (%)	21%
Maximum Green (s)	21.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	13.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 59
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 21.4 Intersection LOS: C
Intersection Capacity Utilization 74.3% ICU Level of Service D
Analysis Period (min) 15
90th %ile Actuated Cycle: 95
70th %ile Actuated Cycle: 50
50th %ile Actuated Cycle: 50
30th %ile Actuated Cycle: 50
10th %ile Actuated Cycle: 50
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Massachusetts Avenue & Member's Plus Credit Union Driveway/Allstate Road



Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBU	EBT	EBR	WBU	WBL	WBT	NBU	NBL	NBR
Vol, veh/h	0	302	161	0	0	312	0	205	5
Peak Hour Factor	0.92	0.96	0.96	0.92	0.96	0.96	0.92	0.96	0.96
Heavy Vehicles, %	2	1	3	2	0	1	2	1	0
Mvmt Flow	0	315	168	0	0	325	0	214	5
Number of Lanes	0	1	1	0	0	1	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	12	13.1	12.4
HCM LOS	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1
Vol Left, %	98%	0%	0%	0%
Vol Thru, %	0%	100%	0%	100%
Vol Right, %	2%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	210	302	161	312
LT Vol	205	0	0	0
Through Vol	0	302	0	312
RT Vol	5	0	161	0
Lane Flow Rate	219	315	168	325
Geometry Grp	2	7	7	5
Degree of Util (X)	0.363	0.489	0.229	0.479
Departure Headway (Hd)	5.98	5.598	4.924	5.309
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	602	645	730	679
Service Time	4.01	3.322	2.648	3.334
HCM Lane V/C Ratio	0.364	0.488	0.23	0.479
HCM Control Delay	12.4	13.6	9.1	13.1
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.7	2.7	0.9	2.6

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	27	199	777	22	56	617
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	205	801	23	58	636

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1246	412	0	0	824	0
Stage 1	812	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	166	589	-	-	802	-
Stage 1	397	-	-	-	-	-
Stage 2	621	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	147	589	-	-	802	-
Mov Cap-2 Maneuver	147	-	-	-	-	-
Stage 1	397	-	-	-	-	-
Stage 2	551	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.6	0	1.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	433	802	-
HCM Lane V/C Ratio	-	-	0.538	0.072	-
HCM Control Delay (s)	-	-	22.6	9.8	0.5
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	3.1	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	406	324	426	106	301	22	406	396	112	15	344	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	175		250	0		100	125		0	100		0
Storage Lanes	1		1	0		1	1		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	0.95	0.97	1.00	1.00	0.95	0.95	0.95
Frt			0.850		0.992			0.967			0.933	
Flt Protected	0.950				0.988		0.950				0.999	
Satd. Flow (prot)	3467	1845	1568	0	3417	0	3433	1774	0	0	3278	0
Flt Permitted	0.950				0.738		0.950				0.674	
Satd. Flow (perm)	3467	1845	1568	0	2552	0	3433	1774	0	0	2212	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			448		5			15			169	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1049			960			1569			1434	
Travel Time (s)		23.8			21.8			35.7			32.6	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	1%	3%	3%	3%	4%	0%	2%	4%	2%	7%	3%	2%
Adj. Flow (vph)	427	341	448	112	317	23	427	417	118	16	362	306
Shared Lane Traffic (%)												
Lane Group Flow (vph)	427	341	448	0	452	0	427	535	0	0	684	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)		24			24			24			24	
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
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA	pm+ov	Perm	NA		Prot	NA		Perm	NA	
Protected Phases	5	1 5	3		1		3	3 4			4	
Permitted Phases			1 5	1						4		

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	1 5	3	1	1		3	3 4		4	4	
Switch Phase												
Minimum Initial (s)	10.0		10.0	15.0	15.0		10.0			10.0	10.0	
Minimum Split (s)	14.0		14.0	20.0	20.0		14.0			15.0	15.0	
Total Split (s)	15.0		16.0	24.0	24.0		16.0			18.0	18.0	
Total Split (%)	15.0%		16.0%	24.0%	24.0%		16.0%			18.0%	18.0%	
Maximum Green (s)	11.0		12.0	19.0	19.0		12.0			13.0	13.0	
Yellow Time (s)	4.0		4.0	4.0	4.0		4.0			4.0	4.0	
All-Red Time (s)	0.0		0.0	1.0	1.0		0.0			1.0	1.0	
Lost Time Adjust (s)	0.0		0.0		0.0		0.0				0.0	
Total Lost Time (s)	4.0		4.0		5.0		4.0				5.0	
Lead/Lag	Lag									Lead	Lead	
Lead-Lag Optimize?	Yes									Yes	Yes	
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0			3.0	3.0	
Recall Mode	None		None	C-Max	C-Max		None			None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	11.0	61.0	78.0		46.0		12.0	30.0			13.0	
Actuated g/C Ratio	0.11	0.61	0.78		0.46		0.12	0.30			0.13	
v/c Ratio	1.12	0.30	0.34		0.38		1.04	0.99			1.58	
Control Delay	124.8	10.2	1.0		18.7		93.0	66.1			294.7	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0			0.0	
Total Delay	124.8	10.2	1.0		18.7		93.0	66.1			294.7	
LOS	F	B	A		B		F	E			F	
Approach Delay		47.1			18.7			78.0			294.7	
Approach LOS		D			B			E			F	
90th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
90th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
70th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
70th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
50th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
50th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
30th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
30th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
10th %ile Green (s)	11.0		12.0	46.0	46.0		12.0			13.0	13.0	
10th %ile Term Code	Max		Max	Coord	Coord		Max			Max	Max	
Queue Length 50th (ft)	~162	96	0		95		~148	337			~277	
Queue Length 95th (ft)	#259	145	18		135		m#221	m#518			#395	
Internal Link Dist (ft)		969			880			1489			1354	
Turn Bay Length (ft)	175		250				125					
Base Capacity (vph)	381	1125	1321		1176		411	542			434	
Starvation Cap Reductn	0	0	0		0		0	0			0	
Spillback Cap Reductn	0	0	0		0		0	0			0	
Storage Cap Reductn	0	0	0		0		0	0			0	
Reduced v/c Ratio	1.12	0.30	0.34		0.38		1.04	0.99			1.58	

Intersection Summary

Area Type: Other

Lane Group	ø2
Detector Phase	
Switch Phase	
Minimum Initial (s)	24.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	27%
Maximum Green (s)	24.0
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

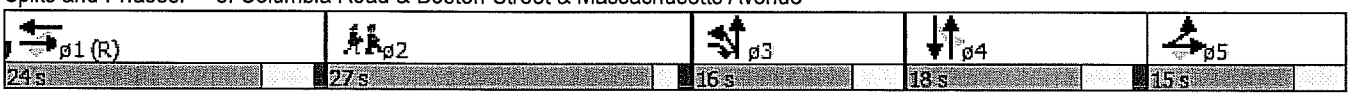
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 103.3 Intersection LOS: F
Intersection Capacity Utilization 92.3% ICU Level of Service F
Analysis Period (min) 15

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

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

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

Splits and Phases: 8: Columbia Road & Boston Street & Massachusetts Avenue



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	488	54	224	505	134	73	196	366	115	145	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	16	16	12	12	12	12	12	12
Storage Length (ft)	0		200	0		0	0		150	0		0
Storage Lanes	1		1	1		0	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.985			0.968				0.850		0.963	
Flt Protected	0.950			0.950				0.987		0.950		
Satd. Flow (prot)	1752	3409	0	1703	3891	0	0	1813	1583	1752	1726	0
Flt Permitted	0.950			0.950				0.643		0.258		
Satd. Flow (perm)	1752	3409	0	1703	3891	0	0	1181	1583	476	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			30				389		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1569			879			845			3062	
Travel Time (s)		35.7			20.0			19.2			69.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	4%	7%	6%	2%	1%	2%	4%	2%	3%	6%	6%
Adj. Flow (vph)	54	519	57	238	537	143	78	209	389	122	154	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	576	0	238	680	0	0	287	389	122	204	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)		24			24			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	0.85	0.85	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Perm	NA	custom	Perm	NA	
Protected Phases	1	6		5	2			4	5		4	

Lane Group	ø3
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases							4		2	4		
Detector Phase	1	6		5	2		4	4	5	4	4	
Switch Phase												
Minimum Initial (s)	8.0	10.0		10.0	10.0		8.0	8.0	10.0	8.0	8.0	
Minimum Split (s)	14.0	16.0		16.0	16.0		15.0	15.0	16.0	15.0	15.0	
Total Split (s)	15.0	21.0		21.0	27.0		23.0	23.0	21.0	23.0	23.0	
Total Split (%)	15.0%	21.0%		21.0%	27.0%		23.0%	23.0%	21.0%	23.0%	23.0%	
Maximum Green (s)	9.0	15.0		15.0	21.0		16.0	16.0	15.0	16.0	16.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	3.0	4.0	4.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0			7.0	6.0	7.0	7.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag	Lead	Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.4	50.1		14.9	59.4			16.0	71.0	16.0	16.0	
Actuated g/C Ratio	0.08	0.50		0.15	0.59			0.16	0.71	0.16	0.16	
v/c Ratio	0.37	0.34		0.94	0.29			1.53	0.31	1.61	0.71	
Control Delay	47.6	14.9		86.0	10.5			293.8	1.2	356.0	51.9	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	47.6	14.9		86.0	10.5			293.8	1.2	356.0	51.9	
LOS	D	B		F	B			F	A	F	D	
Approach Delay		17.7			30.1			125.4			165.7	
Approach LOS		B			C			F			F	
90th %ile Green (s)	9.0	50.0		15.0	56.0		16.0	16.0	15.0	16.0	16.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max	Max	Max	Max	
70th %ile Green (s)	8.8	50.0		15.0	56.2		16.0	16.0	15.0	16.0	16.0	
70th %ile Term Code	Gap	Coord		Max	Coord		Max	Max	Max	Max	Max	
50th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
50th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
30th %ile Green (s)	8.0	50.0		15.0	57.0		16.0	16.0	15.0	16.0	16.0	
30th %ile Term Code	Min	Coord		Max	Coord		Max	Max	Max	Max	Max	
10th %ile Green (s)	0.0	50.3		14.7	71.0		16.0	16.0	14.7	16.0	16.0	
10th %ile Term Code	Skip	Coord		Gap	Coord		Max	Max	Gap	Max	Max	
Queue Length 50th (ft)	29	123		152	105			~257	0	~112	116	
Queue Length 95th (ft)	m45	m126		#298	143			#420	24	#227	#215	
Internal Link Dist (ft)		1489			799			765			2982	
Turn Bay Length (ft)									150			
Base Capacity (vph)	157	1711		255	2324			188	1236	76	287	
Starvation Cap Reductn	0	0		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.34	0.34		0.93	0.29			1.53	0.31	1.61	0.71	

Intersection Summary

Lane Group	ø3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	35.0
Total Split (s)	35.0
Total Split (%)	35%
Maximum Green (s)	28.0
Yellow Time (s)	3.0
All-Red Time (s)	4.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

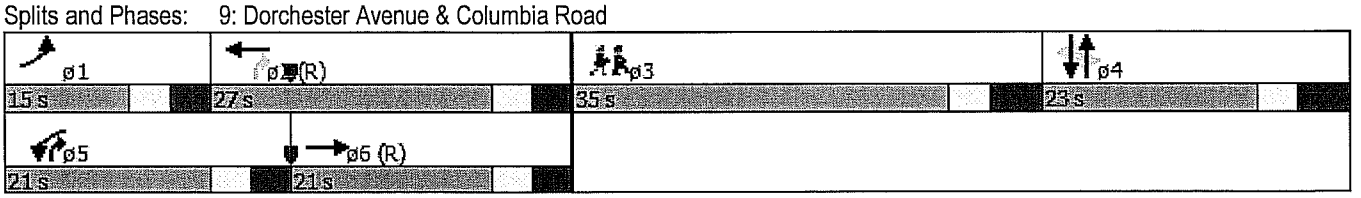
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 31 (31%), Referenced to phase 2:WBT and 6:EBT, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.61
Intersection Signal Delay: 69.6 Intersection LOS: E
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15

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

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

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

Splits and Phases: 9: Dorchester Avenue & Columbia Road



Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	46	45	44	356	392	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	46	45	363	400	105

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	906	453	505	0	-	0
Stage 1	453	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	307	607	1060	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	291	607	1060	-	-	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1060	-	392	-	-
HCM Lane V/C Ratio	0.042	-	0.237	-	-
HCM Control Delay (s)	8.5	0	17	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	60	1	32	0	0	0	41	342	28	38	464	81
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	7	0	0	0	0	0	0	3	2	0	4	1
Mvmt Flow	62	1	33	0	0	0	43	356	29	40	483	84

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1061	1076	526	568	0	0	385	0	0
Stage 1	605	605	-	-	-	-	-	-	-
Stage 2	456	471	-	-	-	-	-	-	-
Critical Hdwy	6.47	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.47	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.47	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	242	221	556	1014	-	-	1185	-	-
Stage 1	536	491	-	-	-	-	-	-	-
Stage 2	628	563	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	217	0	556	1014	-	-	1185	-	-
Mov Cap-2 Maneuver	217	0	-	-	-	-	-	-	-
Stage 1	509	0	-	-	-	-	-	-	-
Stage 2	594	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25	0.9	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1014	-	-	275	1185	-	-
HCM Lane V/C Ratio	0.042	-	-	0.352	0.033	-	-
HCM Control Delay (s)	8.7	0	-	25	8.1	0	-
HCM Lane LOS	A	A	-	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	9	214	0	0	0	0	349	11	8	229	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.856						0.996				
Flt Protected	0.950										0.998	
Satd. Flow (prot)	1752	1626	0	0	0	0	0	1839	0	0	1843	0
Flt Permitted	0.950										0.987	
Satd. Flow (perm)	1752	1626	0	0	0	0	0	1839	0	0	1822	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		238						2				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			184			362			550	
Travel Time (s)		7.0			4.2			8.2			12.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	3%	0%	0%	3%	0%
Adj. Flow (vph)	143	10	238	0	0	0	0	388	12	9	254	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	143	248	0	0	0	0	0	400	0	0	263	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			0			0	
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
Number of Detectors	1	2						2		1	2	
Detector Template	Left	Thru						Thru		Left	Thru	
Leading Detector (ft)	20	100						100		20	100	
Trailing Detector (ft)	0	0						0		0	0	
Detector 1 Position(ft)	0	0						0		0	0	
Detector 1 Size(ft)	20	6						6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex						Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0						0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0						0.0		0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		Cl+Ex						Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		5						1			1	
Permitted Phases	5									1		
Detector Phase	5	5						1		1	1	
Switch Phase												
Minimum Initial (s)	8.0	8.0						20.0		20.0	20.0	

Lane Group	ø2
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	2
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	13.0	13.0						25.0		25.0	25.0	
Total Split (s)	25.0	25.0						45.0		45.0	45.0	
Total Split (%)	27.5%	27.5%						49.5%		49.5%	49.5%	
Maximum Green (s)	20.0	20.0						40.0		40.0	40.0	
Yellow Time (s)	3.0	3.0						3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0			0.0	
Total Lost Time (s)	5.0	5.0						5.0			5.0	
Lead/Lag								Lead		Lead	Lead	
Lead-Lag Optimize?								Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0						2.0		2.0	2.0	
Recall Mode	None	None						Max		Max	Max	
Walk Time (s)								7.0		7.0	7.0	
Flash Dont Walk (s)								7.0		7.0	7.0	
Pedestrian Calls (#/hr)								0		0	0	
Act Effct Green (s)	9.8	9.8						40.2			40.2	
Actuated g/C Ratio	0.16	0.16						0.67			0.67	
v/c Ratio	0.50	0.53						0.32			0.22	
Control Delay	29.2	8.8						5.4			4.7	
Queue Delay	0.0	0.0						0.0			0.0	
Total Delay	29.2	8.8						5.4			4.7	
LOS	C	A						A			A	
Approach Delay		16.2						5.4			4.7	
Approach LOS		B						A			A	
90th %ile Green (s)	13.7	13.7						40.0		40.0	40.0	
90th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
70th %ile Green (s)	10.5	10.5						40.0		40.0	40.0	
70th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
50th %ile Green (s)	9.1	9.1						40.0		40.0	40.0	
50th %ile Term Code	Gap	Gap						MaxR		MaxR	MaxR	
30th %ile Green (s)	8.0	8.0						40.0		40.0	40.0	
30th %ile Term Code	Min	Min						MaxR		MaxR	MaxR	
10th %ile Green (s)	8.0	8.0						40.9		40.9	40.9	
10th %ile Term Code	Min	Min						Dwell		Dwell	Dwell	
Queue Length 50th (ft)	48	3						46			28	
Queue Length 95th (ft)	94	55						105			67	
Internal Link Dist (ft)		228			104			282			470	
Turn Bay Length (ft)												
Base Capacity (vph)	584	700						1232			1220	
Starvation Cap Reductn	0	0						0			0	
Spillback Cap Reductn	0	0						0			0	
Storage Cap Reductn	0	0						0			0	
Reduced v/c Ratio	0.24	0.35						0.32			0.22	

Intersection Summary

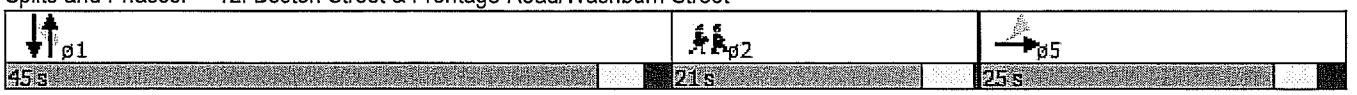
Area Type: Other
Cycle Length: 91
Actuated Cycle Length: 60
Natural Cycle: 60

Lane Group	ø2
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	23%
Maximum Green (s)	17.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	10.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 9.2
Intersection LOS: A
Intersection Capacity Utilization 41.1%
ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 63.7
70th %ile Actuated Cycle: 60.5
50th %ile Actuated Cycle: 59.1
30th %ile Actuated Cycle: 58
10th %ile Actuated Cycle: 58.9

Splits and Phases: 12: Boston Street & Frontage Road/Washburn Street



Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Lane Configurations												
Volume (vph)	80	145	156	25	27	5	43	272	11	2	6	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0			0		175			0
Storage Lanes		1		0			0		1			0
Taper Length (ft)		25					25					25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt			0.962					0.994				
Flt Protected		0.950						0.993				
Satd. Flow (prot)	0	1770	1803	0	0	0	0	3094	0	0	0	0
Flt Permitted		0.300						0.860				
Satd. Flow (perm)	0	559	1803	0	0	0	0	2679	0	0	0	0
Right Turn on Red					Yes					Yes		
Satd. Flow (RTOR)			5									
Link Speed (mph)			30					30				
Link Distance (ft)			976					871				
Travel Time (s)			22.2					19.8				
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	1%	2%	3%	8%	0%	18%	10%	0%	0%	4%
Adj. Flow (vph)	82	149	161	26	28	5	44	280	11	2	6	156
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	231	215	0	0	0	0	342	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left
Median Width(ft)			12					12				
Link Offset(ft)			0					0				
Crosswalk Width(ft)			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	15		9	9	15	15		9	9	15	15
Number of Detectors	1	1	2			1	1	2			1	1
Detector Template	Left	Left	Thru			Left	Left	Thru			Left	Left
Leading Detector (ft)	20	20	100			20	20	100			20	20
Trailing Detector (ft)	0	0	0			0	0	0			0	0
Detector 1 Position(ft)	0	0	0			0	0	0			0	0
Detector 1 Size(ft)	20	20	6			20	20	6			20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0			0.0	0.0	0.0			0.0	0.0
Detector 2 Position(ft)			94					94				
Detector 2 Size(ft)			6					6				
Detector 2 Type			Cl+Ex					Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)			0.0					0.0				
Turn Type	D.P+P	D.P+P	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	5	5	5					6				
Permitted Phases	6	6	6			6	6				1	1

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Lane Configurations												
Volume (vph)	112	64	26	14	72	57	64	68	194	121	114	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		100			0		0			0		0
Storage Lanes		1			0		0			0		0
Taper Length (ft)					25					25		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.962					0.928					0.985	
Flt Protected	0.979					0.985					0.968	
Satd. Flow (prot)	3281	0	0	0	0	2583	0	0	0	0	3347	0
Flt Permitted	0.684					0.670					0.968	
Satd. Flow (perm)	2292	0	0	0	0	1757	0	0	0	0	3347	0
Right Turn on Red			Yes					Yes				
Satd. Flow (RTOR)	5					28						
Link Speed (mph)	30					30					30	
Link Distance (ft)	291					805					416	
Travel Time (s)	6.6					18.3					9.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	4%	4%	25%	72%	9%	9%	15%	4%	2%	3%	0%
Adj. Flow (vph)	115	66	27	14	74	59	66	70	200	125	118	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	370	0	0	0	0	283	0	0	0	0	494	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)	0					0					0	
Link Offset(ft)	0					0					0	
Crosswalk Width(ft)	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)		9	9	15	15		9	9	15	15		9
Number of Detectors	2			1	1	2			1	1	2	
Detector Template	Thru			Left	Left	Thru			Left	Left	Thru	
Leading Detector (ft)	100			20	20	100			20	20	100	
Trailing Detector (ft)	0			0	0	0			0	0	0	
Detector 1 Position(ft)	0			0	0	0			0	0	0	
Detector 1 Size(ft)	6			20	20	6			20	20	6	
Detector 1 Type	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Queue (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 1 Delay (s)	0.0			0.0	0.0	0.0			0.0	0.0	0.0	
Detector 2 Position(ft)	94					94					94	
Detector 2 Size(ft)	6					6					6	
Detector 2 Type	Cl+Ex					Cl+Ex					Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0					0.0					0.0	
Turn Type	NA			Perm	Perm	NA			Split	Split	NA	
Protected Phases	1					1			8	8	8	
Permitted Phases				1	1							

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations						
Volume (vph)	4	6	22	107	218	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)			0		0	
Storage Lanes			0		0	
Taper Length (ft)			25			
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95
Frt				0.904		
Flt Protected				0.996		
Satd. Flow (prot)	0	0	0	3139	0	0
Flt Permitted				0.996		
Satd. Flow (perm)	0	0	0	3139	0	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)				3		
Link Speed (mph)				30		
Link Distance (ft)				1221		
Travel Time (s)				27.8		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	7%	2%	3%	14%
Adj. Flow (vph)	4	6	23	110	225	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	383	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Right	Left	Left	Left	Right	Right
Median Width(ft)				0		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	15	15		9	9
Number of Detectors		1	1	2		
Detector Template		Left	Left	Thru		
Leading Detector (ft)		20	20	100		
Trailing Detector (ft)		0	0	0		
Detector 1 Position(ft)		0	0	0		
Detector 1 Size(ft)		20	20	6		
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel						
Detector 1 Extend (s)		0.0	0.0	0.0		
Detector 1 Queue (s)		0.0	0.0	0.0		
Detector 1 Delay (s)		0.0	0.0	0.0		
Detector 2 Position(ft)				94		
Detector 2 Size(ft)				6		
Detector 2 Type				Cl+Ex		
Detector 2 Channel						
Detector 2 Extend (s)				0.0		
Turn Type		Split	Split	NA		
Protected Phases		7	7	7		
Permitted Phases						

Lane Group	EBL2	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL
Detector Phase	5	5	5			6	6	6			1	1
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0			8.0	8.0	8.0			11.0	11.0
Minimum Split (s)	13.0	13.0	13.0			16.0	16.0	16.0			18.0	18.0
Total Split (s)	15.0	15.0	15.0			25.0	25.0	25.0			43.0	43.0
Total Split (%)	10.0%	10.0%	10.0%			16.7%	16.7%	16.7%			28.7%	28.7%
Maximum Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
Yellow Time (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
All-Red Time (s)	1.0	1.0	1.0			3.0	3.0	3.0			4.0	4.0
Lost Time Adjust (s)		0.0	0.0					0.0				
Total Lost Time (s)		4.0	4.0					6.0				
Lead/Lag	Lead	Lead	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0			3.0	3.0	3.0			3.0	3.0
Recall Mode	None	None	None			None	None	None			C-Max	C-Max
Act Effct Green (s)		32.0	36.0					19.0				
Actuated g/C Ratio		0.21	0.24					0.13				
v/c Ratio		1.11	0.49					1.01				
Control Delay		142.5	52.5					114.9				
Queue Delay		0.0	0.0					0.0				
Total Delay		142.5	52.5					114.9				
LOS		F	D					F				
Approach Delay			99.1					114.9				
Approach LOS			F					F				
90th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
90th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
70th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			36.0	36.0
70th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
50th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			37.9	37.9
50th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
30th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			43.0	43.0
30th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
10th %ile Green (s)	11.0	11.0	11.0			19.0	19.0	19.0			50.1	50.1
10th %ile Term Code	Max	Max	Max			Max	Max	Max			Coord	Coord
Queue Length 50th (ft)		~225	179					~181				
Queue Length 95th (ft)		#353	265					#290				
Internal Link Dist (ft)			896					791				
Turn Bay Length (ft)												
Base Capacity (vph)		208	436					339				
Starvation Cap Reductn		0	0					0				
Spillback Cap Reductn		0	0					0				
Storage Cap Reductn		0	0					0				
Reduced v/c Ratio		1.11	0.49					1.01				

Intersection Summary

Area Type: Other
Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Lane Group	NBT	NBR	NBR2	SBL2	SBL	SBT	SBR	SBR2	NEL2	NEL	NET	NER
Detector Phase	1			1	1	1			8	8	8	
Switch Phase												
Minimum Initial (s)	11.0			11.0	11.0	11.0			8.0	8.0	8.0	
Minimum Split (s)	18.0			18.0	18.0	18.0			17.0	17.0	17.0	
Total Split (s)	43.0			43.0	43.0	43.0			37.0	37.0	37.0	
Total Split (%)	28.7%			28.7%	28.7%	28.7%			24.7%	24.7%	24.7%	
Maximum Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
Yellow Time (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
All-Red Time (s)	4.0			4.0	4.0	4.0			4.0	4.0	4.0	
Lost Time Adjust (s)	0.0					0.0					0.0	
Total Lost Time (s)	7.0					7.0					7.0	
Lead/Lag									Lag	Lag	Lag	
Lead-Lag Optimize?									Yes	Yes	Yes	
Vehicle Extension (s)	3.0			3.0	3.0	3.0			3.0	3.0	3.0	
Recall Mode	C-Max			C-Max	C-Max	C-Max			None	None	None	
Act Effct Green (s)	40.6					40.6					26.8	
Actuated g/C Ratio	0.27					0.27					0.18	
v/c Ratio	0.59					0.57					1.04dl	
Control Delay	52.7					48.9					71.5	
Queue Delay	0.0					0.0					0.0	
Total Delay	52.7					48.9					71.5	
LOS	D					D					E	
Approach Delay	52.7					48.9					71.5	
Approach LOS	D					D					E	
90th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
90th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
70th %ile Green (s)	36.0			36.0	36.0	36.0			30.0	30.0	30.0	
70th %ile Term Code	Coord			Coord	Coord	Coord			Max	Max	Max	
50th %ile Green (s)	37.9			37.9	37.9	37.9			28.1	28.1	28.1	
50th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
30th %ile Green (s)	43.0			43.0	43.0	43.0			24.8	24.8	24.8	
30th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
10th %ile Green (s)	50.1			50.1	50.1	50.1			21.1	21.1	21.1	
10th %ile Term Code	Coord			Coord	Coord	Coord			Gap	Gap	Gap	
Queue Length 50th (ft)	168					117					245	
Queue Length 95th (ft)	232					174					308	
Internal Link Dist (ft)	211					725					336	
Turn Bay Length (ft)												
Base Capacity (vph)	623					495					669	
Starvation Cap Reductn	0					0					0	
Spillback Cap Reductn	0					0					0	
Storage Cap Reductn	0					0					0	
Reduced v/c Ratio	0.59					0.57					0.74	

Intersection Summary

Lane Group	NER2	SWL2	SWL	SWT	SWR	SWR2
Detector Phase		7	7	7		
Switch Phase						
Minimum Initial (s)		8.0	8.0	8.0		
Minimum Split (s)		17.0	17.0	17.0		
Total Split (s)		30.0	30.0	30.0		
Total Split (%)		20.0%	20.0%	20.0%		
Maximum Green (s)		23.0	23.0	23.0		
Yellow Time (s)		3.0	3.0	3.0		
All-Red Time (s)		4.0	4.0	4.0		
Lost Time Adjust (s)				0.0		
Total Lost Time (s)				7.0		
Lead/Lag		Lead	Lead	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Act Effct Green (s)				21.6		
Actuated g/C Ratio				0.14		
v/c Ratio				1.06dr		
Control Delay				79.1		
Queue Delay				0.0		
Total Delay				79.1		
LOS				E		
Approach Delay				79.1		
Approach LOS				E		
90th %ile Green (s)		23.0	23.0	23.0		
90th %ile Term Code		Max	Max	Max		
70th %ile Green (s)		23.0	23.0	23.0		
70th %ile Term Code		Max	Max	Max		
50th %ile Green (s)		23.0	23.0	23.0		
50th %ile Term Code		Max	Max	Max		
30th %ile Green (s)		21.2	21.2	21.2		
30th %ile Term Code		Gap	Gap	Gap		
10th %ile Green (s)		17.8	17.8	17.8		
10th %ile Term Code		Gap	Gap	Gap		
Queue Length 50th (ft)				191		
Queue Length 95th (ft)				#255		
Internal Link Dist (ft)				1141		
Turn Bay Length (ft)						
Base Capacity (vph)				483		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.79		

Intersection Summary

Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 78.7 Intersection LOS: E
Intersection Capacity Utilization 98.5% ICU Level of Service F
Analysis Period (min) 15

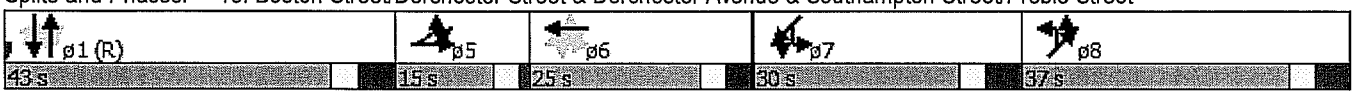
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

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

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

Splits and Phases: 13: Boston Street/Dorchester Street & Dorchester Avenue & Southampton Street/Preble Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	222	404	0	0	627	370	362	27	98	0	0	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	16	16	12	12	16	15	12	15	12	12	16
Storage Length (ft)	0		0	0		25	0		25	0		0
Storage Lanes	1		0	0		1	1		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			0.865
Flt Protected	0.950	0.997					0.950	0.959				
Satd. Flow (prot)	1573	1974	0	0	3539	1777	1868	1704	1692	0	0	1863
Flt Permitted	0.950	0.997					0.950	0.959				
Satd. Flow (perm)	1573	1974	0	0	3539	1777	1868	1704	1692	0	0	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						150			136			136
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		738			976			345			236	
Travel Time (s)		16.8			22.2			7.8			5.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	9%	3%	0%	0%	2%	3%	1%	5%	5%	0%	0%	0%
Adj. Flow (vph)	247	449	0	0	697	411	402	30	109	0	0	12
Shared Lane Traffic (%)	10%						46%					
Lane Group Flow (vph)	222	474	0	0	697	411	217	215	109	0	0	12
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			15			15	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	0.85	0.85	1.00	1.00	0.85	0.88	1.00	0.88	1.00	1.00	0.85
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			1
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			Right
Leading Detector (ft)	20	100			100	20	20	100	20			20
Trailing Detector (ft)	0	0			0	0	0	0	0			0
Detector 1 Position(ft)	0	0			0	0	0	0	0			0
Detector 1 Size(ft)	20	6			6	20	20	6	20			20
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Split	NA			NA	Prot	Split	NA	Prot			Over
Protected Phases	1	1			2	2	3	3	3			1

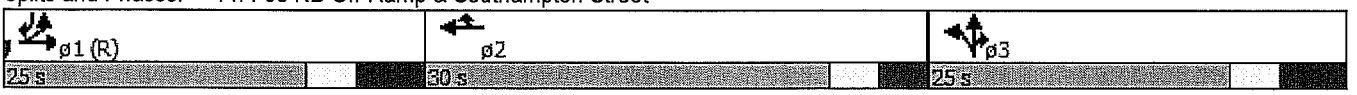
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases												
Detector Phase	1	1			2	2	3	3	3			1
Switch Phase												
Minimum Initial (s)	8.0	8.0			5.0	5.0	8.0	8.0	8.0			8.0
Minimum Split (s)	15.0	15.0			11.0	11.0	15.0	15.0	15.0			15.0
Total Split (s)	25.0	25.0			30.0	30.0	25.0	25.0	25.0			25.0
Total Split (%)	31.3%	31.3%			37.5%	37.5%	31.3%	31.3%	31.3%			31.3%
Maximum Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
Yellow Time (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			3.0
All-Red Time (s)	4.0	4.0			3.0	3.0	4.0	4.0	4.0			4.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Lost Time (s)	7.0	7.0			6.0	6.0	7.0	7.0	7.0			7.0
Lead/Lag	Lead	Lead			Lag	Lag						Lead
Lead-Lag Optimize?	Yes	Yes			Yes	Yes						Yes
Vehicle Extension (s)	2.0	2.0			5.0	5.0	2.0	2.0	2.0			2.0
Recall Mode	C-Max	C-Max			Max	Max	None	None	None			C-Max
Act Effct Green (s)	21.9	21.9			24.0	24.0	14.1	14.1	14.1			21.9
Actuated g/C Ratio	0.27	0.27			0.30	0.30	0.18	0.18	0.18			0.27
v/c Ratio	0.52	0.88			0.66	0.64	0.66	0.72	0.27			0.02
Control Delay	31.7	47.3			27.9	20.5	40.0	44.2	4.9			0.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0			0.0
Total Delay	31.7	47.3			27.9	20.5	40.0	44.2	4.9			0.1
LOS	C	D			C	C	D	D	A			A
Approach Delay		42.3			25.2			34.6				
Approach LOS		D			C			C				
90th %ile Green (s)	18.0	18.0			24.0	24.0	18.0	18.0	18.0			18.0
90th %ile Term Code	Coord	Coord			MaxR	MaxR	Max	Max	Max			Coord
70th %ile Green (s)	18.5	18.5			24.0	24.0	17.5	17.5	17.5			18.5
70th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
50th %ile Green (s)	21.6	21.6			24.0	24.0	14.4	14.4	14.4			21.6
50th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
30th %ile Green (s)	24.0	24.0			24.0	24.0	12.0	12.0	12.0			24.0
30th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
10th %ile Green (s)	27.4	27.4			24.0	24.0	8.6	8.6	8.6			27.4
10th %ile Term Code	Coord	Coord			MaxR	MaxR	Gap	Gap	Gap			Coord
Queue Length 50th (ft)	109	261			158	110	107	107	0			0
Queue Length 95th (ft)	m154	m#389			216	207	171	172	27			0
Internal Link Dist (ft)		658			896			265			156	
Turn Bay Length (ft)						25			25			
Base Capacity (vph)	430	540			1061	638	420	383	486			608
Starvation Cap Reductn	0	0			0	0	0	0	0			0
Spillback Cap Reductn	0	0			0	0	0	0	0			0
Storage Cap Reductn	0	0			0	0	0	0	0			0
Reduced v/c Ratio	0.52	0.88			0.66	0.64	0.52	0.56	0.22			0.02

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Offset: 5 (6%), Referenced to phase 1:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 32.3 Intersection LOS: C
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: I-93 NB Off-Ramp & Southampton Street



Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	138	0	0	289	273
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	0	145	0	0	304	287

Major/Minor	Minor2		Major2	
Conflicting Flow All	304	304	-	0
Stage 1	304	-	-	-
Stage 2	0	-	-	-
Critical Hdwy	7.1	6.2	-	-
Critical Hdwy Stg 1	6.1	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-
Pot Cap-1 Maneuver	652	740	-	-
Stage 1	710	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	652	740	-	-
Mov Cap-2 Maneuver	652	-	-	-
Stage 1	710	-	-	-
Stage 2	-	-	-	-

Approach	EB	SB
HCM Control Delay, s	11	0
HCM LOS	B	

Minor Lane/Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	740	-	-
HCM Lane V/C Ratio	0.196	-	-
HCM Control Delay (s)	11	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.7	-	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations								
Volume (vph)	0	128	0	0	1293	0	0	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.88
Frt		0.865						0.850
Flt Protected								
Satd. Flow (prot)	0	1627	0	0	3505	0	0	2682
Flt Permitted								
Satd. Flow (perm)	0	1627	0	0	3505	0	0	2682
Right Turn on Red		Yes						
Satd. Flow (RTOR)		148						
Link Speed (mph)	30			30	30		30	
Link Distance (ft)	78			140	950		690	
Travel Time (s)	1.8			3.2	21.6		15.7	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	1%	0%	0%	3%	0%	0%	6%
Adj. Flow (vph)	0	135	0	0	1361	0	0	254
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	135	0	0	1361	0	0	254
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right	Left	Right
Median Width(ft)	0			0	0		0	
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
Turning Speed (mph)	15	9	15			9	15	9
Number of Detectors		1			2			1
Detector Template		Right			Thru			Right
Leading Detector (ft)		20			100			20
Trailing Detector (ft)		0			0			0
Detector 1 Position(ft)		0			0			0
Detector 1 Size(ft)		20			6			20
Detector 1 Type		Cl+Ex			Cl+Ex			Cl+Ex
Detector 1 Channel								
Detector 1 Extend (s)		0.0			0.0			0.0
Detector 1 Queue (s)		0.0			0.0			0.0
Detector 1 Delay (s)		0.0			0.0			0.0
Detector 2 Position(ft)					94			
Detector 2 Size(ft)					6			
Detector 2 Type					Cl+Ex			
Detector 2 Channel								
Detector 2 Extend (s)					0.0			
Turn Type		Prot			NA			Prot
Protected Phases		1			3			2
Permitted Phases								
Detector Phase		1			3			2
Switch Phase								
Minimum Initial (s)		8.0			8.0			8.0

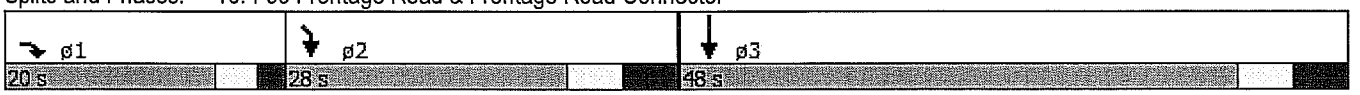
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	SEL	SER
Minimum Split (s)		13.0			16.0			16.0
Total Split (s)		20.0			48.0			28.0
Total Split (%)		20.8%			50.0%			29.2%
Maximum Green (s)		15.0			40.0			20.0
Yellow Time (s)		3.0			4.0			4.0
All-Red Time (s)		2.0			4.0			4.0
Lost Time Adjust (s)		0.0			0.0			0.0
Total Lost Time (s)		5.0			8.0			8.0
Lead/Lag		Lead						Lag
Lead-Lag Optimize?		Yes						Yes
Vehicle Extension (s)		3.0			3.0			3.0
Recall Mode		None			Max			Max
Act Effct Green (s)		8.4			40.0			20.0
Actuated g/C Ratio		0.09			0.45			0.22
v/c Ratio		0.47			0.87			0.42
Control Delay		11.5			29.9			32.5
Queue Delay		0.0			0.0			0.0
Total Delay		11.5			29.9			32.5
LOS		B			C			C
Approach Delay					29.9			
Approach LOS					C			
90th %ile Green (s)		10.1			40.0			20.0
90th %ile Term Code		Gap			MaxR			MaxR
70th %ile Green (s)		8.0			40.0			20.0
70th %ile Term Code		Min			MaxR			MaxR
50th %ile Green (s)		8.0			40.0			20.0
50th %ile Term Code		Min			MaxR			MaxR
30th %ile Green (s)		8.0			40.0			20.0
30th %ile Term Code		Min			MaxR			MaxR
10th %ile Green (s)		8.0			40.0			20.0
10th %ile Term Code		Min			MaxR			MaxR
Queue Length 50th (ft)		0			350			69
Queue Length 95th (ft)		45			#484			112
Internal Link Dist (ft)	1			60	870		610	
Turn Bay Length (ft)								
Base Capacity (vph)		396			1568			599
Starvation Cap Reductn		0			0			0
Spillback Cap Reductn		0			0			0
Storage Cap Reductn		0			0			0
Reduced v/c Ratio		0.34			0.87			0.42

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 89.4
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 28.9 Intersection LOS: C

Intersection Capacity Utilization 69.6%
ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 91.1
70th %ile Actuated Cycle: 89
50th %ile Actuated Cycle: 89
30th %ile Actuated Cycle: 89
10th %ile Actuated Cycle: 89
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: I-93 Frontage Road & Frontage Road Connector



Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Lane Configurations		↕					↕		↰	↑		
Volume (vph)	5	275	237	160	42	476	476	1	211	1	340	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	16	12
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt		0.912								0.850		
Flt Protected							0.975		0.950			
Satd. Flow (prot)	0	3153	0	0	0	0	3442	0	1770	1527	0	0
Flt Permitted		0.948					0.553		0.752			
Satd. Flow (perm)	0	2989	0	0	0	0	1952	0	1401	1527	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)		45								4		
Link Speed (mph)		30					30			30		
Link Distance (ft)		494					738			733		
Travel Time (s)		11.2					16.8			16.7		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	6%	5%	1%	8%	2%	2%	0%	2%	0%	5%	17%
Adj. Flow (vph)	5	284	244	165	43	491	491	1	218	1	351	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	698	0	0	0	0	1026	0	218	377	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)		0					0			12		
Link Offset(ft)		0					0			0		
Crosswalk Width(ft)		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	0.85	1.00
Turning Speed (mph)	15		9	9	15	15		9	15		9	9
Number of Detectors	1	2			1	1	2		1	2		
Detector Template	Left	Thru			Left	Left	Thru		Left	Thru		
Leading Detector (ft)	20	100			20	20	100		20	100		
Trailing Detector (ft)	0	0			0	0	0		0	0		
Detector 1 Position(ft)	0	0			0	0	0		0	0		
Detector 1 Size(ft)	20	6			20	20	6		20	6		
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)		94					94			94		
Detector 2 Size(ft)		6					6			6		
Detector 2 Type		Cl+Ex					Cl+Ex			Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)		0.0					0.0			0.0		
Turn Type	Perm	NA			pm+pt	pm+pt	NA		Perm	NA		
Protected Phases		1			4	4	1 4			3		
Permitted Phases	1				1 4	1 4			3			
Detector Phase	1	1			4	4	1 4		3	3		
Switch Phase												

Lane Group	SBL2	SBT	SBR	ø2
Lane Configurations		↕		
Volume (vph)	2	1	6	
Ideal Flow (vphpl)	1900	1900	1900	
Lane Width (ft)	12	12	12	
Lane Util. Factor	1.00	1.00	1.00	
Frt		0.910		
Flt Protected		0.989		
Satd. Flow (prot)	0	1710	0	
Flt Permitted		0.923		
Satd. Flow (perm)	0	1596	0	
Right Turn on Red			Yes	
Satd. Flow (RTOR)		6		
Link Speed (mph)		30		
Link Distance (ft)		242		
Travel Time (s)		5.5		
Peak Hour Factor	0.97	0.97	0.97	
Heavy Vehicles (%)	0%	0%	0%	
Adj. Flow (vph)	2	1	6	
Shared Lane Traffic (%)				
Lane Group Flow (vph)	0	9	0	
Enter Blocked Intersection	No	No	No	
Lane Alignment	Left	Left	Right	
Median Width(ft)		12		
Link Offset(ft)		0		
Crosswalk Width(ft)		16		
Two way Left Turn Lane				
Headway Factor	1.00	1.00	1.00	
Turning Speed (mph)	15		9	
Number of Detectors	1	2		
Detector Template	Left	Thru		
Leading Detector (ft)	20	100		
Trailing Detector (ft)	0	0		
Detector 1 Position(ft)	0	0		
Detector 1 Size(ft)	20	6		
Detector 1 Type	Cl+Ex	Cl+Ex		
Detector 1 Channel				
Detector 1 Extend (s)	0.0	0.0		
Detector 1 Queue (s)	0.0	0.0		
Detector 1 Delay (s)	0.0	0.0		
Detector 2 Position(ft)		94		
Detector 2 Size(ft)		6		
Detector 2 Type		Cl+Ex		
Detector 2 Channel				
Detector 2 Extend (s)		0.0		
Turn Type	Perm	NA		
Protected Phases		3		2
Permitted Phases	3			
Detector Phase	3	3		
Switch Phase				

Lane Group	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2
Minimum Initial (s)	10.0	10.0			5.0	5.0			5.0	5.0		
Minimum Split (s)	16.0	16.0			11.0	11.0			11.0	11.0		
Total Split (s)	20.0	20.0			12.0	12.0			26.0	26.0		
Total Split (%)	25.0%	25.0%			15.0%	15.0%			32.5%	32.5%		
Maximum Green (s)	14.0	14.0			6.0	6.0			20.0	20.0		
Yellow Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
All-Red Time (s)	3.0	3.0			3.0	3.0			3.0	3.0		
Lost Time Adjust (s)		0.0							0.0	0.0		
Total Lost Time (s)		6.0							6.0	6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0			2.0	2.0			2.0	2.0		
Recall Mode	C-Max	C-Max			None	None			None	None		
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		36.0					42.0		20.0	20.0		
Actuated g/C Ratio		0.45					0.52		0.25	0.25		
v/c Ratio		0.51					1.31dl		0.62	0.98		
Control Delay		16.2					17.2		35.7	74.0		
Queue Delay		0.0					0.0		0.0	0.0		
Total Delay		16.2					17.2		35.7	74.0		
LOS		B					B		D	E		
Approach Delay		16.2					17.2			59.9		
Approach LOS		B					B			E		
90th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
90th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
70th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
70th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
50th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
50th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
30th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
30th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
10th %ile Green (s)	36.0	36.0			6.0	6.0			20.0	20.0		
10th %ile Term Code	Coord	Coord			Max	Max			Max	Max		
Queue Length 50th (ft)		117					18		97	186		
Queue Length 95th (ft)		166					#71		170	#361		
Internal Link Dist (ft)		414					658			653		
Turn Bay Length (ft)												
Base Capacity (vph)		1369					1136		350	384		
Starvation Cap Reductn		0					0		0	0		
Spillback Cap Reductn		0					0		0	0		
Storage Cap Reductn		0					0		0	0		
Reduced v/c Ratio		0.51					0.90		0.62	0.98		

Intersection Summary

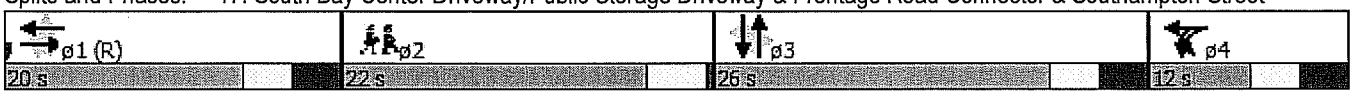
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80

Lane Group	SBL2	SBT	SBR	ø2
Minimum Initial (s)	5.0	5.0		4.0
Minimum Split (s)	11.0	11.0		22.0
Total Split (s)	26.0	26.0		22.0
Total Split (%)	32.5%	32.5%		28%
Maximum Green (s)	20.0	20.0		18.0
Yellow Time (s)	3.0	3.0		3.5
All-Red Time (s)	3.0	3.0		0.5
Lost Time Adjust (s)		0.0		
Total Lost Time (s)		6.0		
Lead/Lag				
Lead-Lag Optimize?				
Vehicle Extension (s)	2.0	2.0		2.0
Recall Mode	None	None		None
Walk Time (s)				5.0
Flash Dont Walk (s)				13.0
Pedestrian Calls (#/hr)				0
Act Effct Green (s)		20.0		
Actuated g/C Ratio		0.25		
v/c Ratio		0.02		
Control Delay		16.6		
Queue Delay		0.0		
Total Delay		16.6		
LOS		B		
Approach Delay		16.6		
Approach LOS		B		
90th %ile Green (s)	20.0	20.0		0.0
90th %ile Term Code	Max	Max		Skip
70th %ile Green (s)	20.0	20.0		0.0
70th %ile Term Code	Max	Max		Skip
50th %ile Green (s)	20.0	20.0		0.0
50th %ile Term Code	Max	Max		Skip
30th %ile Green (s)	20.0	20.0		0.0
30th %ile Term Code	Max	Max		Skip
10th %ile Green (s)	20.0	20.0		0.0
10th %ile Term Code	Max	Max		Skip
Queue Length 50th (ft)		1		
Queue Length 95th (ft)		12		
Internal Link Dist (ft)		162		
Turn Bay Length (ft)				
Base Capacity (vph)		403		
Starvation Cap Reductn		0		
Spillback Cap Reductn		0		
Storage Cap Reductn		0		
Reduced v/c Ratio		0.02		

Intersection Summary

Offset: 0 (0%), Referenced to phase 1:EBWB, Start of Green, Master Intersection
Natural Cycle: 150
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 27.8 Intersection LOS: C
Intersection Capacity Utilization 86.4% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 17: South Bay Center Driveway/Public Storage Driveway & Frontage Road Connector & Southampton Street



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	72	0	0	0	142	1194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	14	12	12	12	15	15
Lane Util. Factor	0.97	1.00	1.00	1.00	0.95	0.95
Frt						
Flt Protected	0.950					0.995
Satd. Flow (prot)	3662	0	0	0	0	3874
Flt Permitted	0.950					0.995
Satd. Flow (perm)	3662	0	0	0	0	3874
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	262		950			135
Travel Time (s)	6.0		21.6			3.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	0	0	0	154	1298
Shared Lane Traffic (%)						
Lane Group Flow (vph)	78	0	0	0	0	1452
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	28		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	0.92	1.00	1.00	1.00	0.88	0.88
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1				1	2
Detector Template	Left				Left	Thru
Leading Detector (ft)	20				20	100
Trailing Detector (ft)	0				0	0
Detector 1 Position(ft)	0				0	0
Detector 1 Size(ft)	20				20	6
Detector 1 Type	Cl+Ex				Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0				0.0	0.0
Detector 1 Queue (s)	0.0				0.0	0.0
Detector 1 Delay (s)	0.0				0.0	0.0
Detector 2 Position(ft)						94
Detector 2 Size(ft)						6
Detector 2 Type						Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)						0.0
Turn Type	Prot				Perm	NA
Protected Phases	8					6
Permitted Phases					6	
Detector Phase	8				6	6
Switch Phase						
Minimum Initial (s)	10.0				12.0	12.0

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Split (s)	15.0				17.0	17.0
Total Split (s)	23.0				57.0	57.0
Total Split (%)	28.8%				71.3%	71.3%
Maximum Green (s)	18.0				52.0	52.0
Yellow Time (s)	3.0				4.0	4.0
All-Red Time (s)	2.0				1.0	1.0
Lost Time Adjust (s)	0.0					0.0
Total Lost Time (s)	5.0					5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0				2.0	2.0
Recall Mode	None				C-Max	C-Max
Act Effct Green (s)	10.0					64.0
Actuated g/C Ratio	0.12					0.80
v/c Ratio	0.17					0.47
Control Delay	21.5					4.1
Queue Delay	0.0					0.0
Total Delay	21.5					4.1
LOS	C					A
Approach Delay	21.5					4.1
Approach LOS	C					A
90th %ile Green (s)	10.0				60.0	60.0
90th %ile Term Code	Min				Coord	Coord
70th %ile Green (s)	10.0				60.0	60.0
70th %ile Term Code	Min				Coord	Coord
50th %ile Green (s)	10.0				60.0	60.0
50th %ile Term Code	Min				Coord	Coord
30th %ile Green (s)	10.0				60.0	60.0
30th %ile Term Code	Min				Coord	Coord
10th %ile Green (s)	0.0				75.0	75.0
10th %ile Term Code	Skip				Coord	Coord
Queue Length 50th (ft)	9					118
Queue Length 95th (ft)	m23					153
Internal Link Dist (ft)	182		870			55
Turn Bay Length (ft)						
Base Capacity (vph)	823					3099
Starvation Cap Reductn	0					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.09					0.47

Intersection Summary

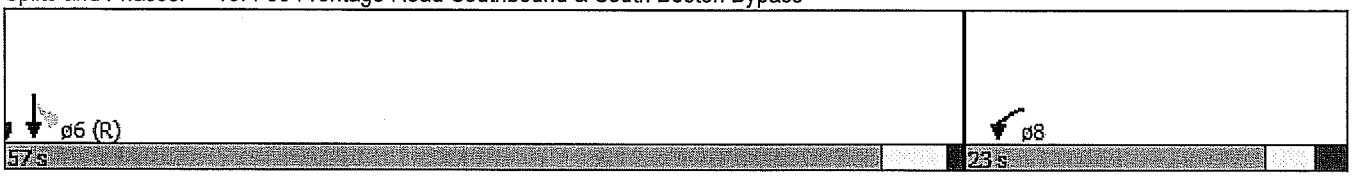
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2: and 6:SBTL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47

Intersection Signal Delay: 4.9
Intersection Capacity Utilization 53.8%
Analysis Period (min) 15

Intersection LOS: A
ICU Level of Service A

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

Splits and Phases: 18: I-93 Frontage Road Southbound & South Boston Bypass



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	114	28	0	0	49	34	23	1496	64	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	12	12	13	12	12	14	12	12	12	12
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.91	0.91	0.91	1.00	1.00	1.00
Frt					0.938			0.994				
Flt Protected		0.961						0.999				
Satd. Flow (prot)	0	3855	0	0	3430	0	0	5386	0	0	0	0
Flt Permitted		0.718						0.999				
Satd. Flow (perm)	0	2880	0	0	3430	0	0	5386	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					13			11				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		262			262			674			284	
Travel Time (s)		6.0			6.0			15.3			6.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	124	30	0	0	53	37	25	1626	70	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	154	0	0	90	0	0	1721	0	0	0	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)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	1.00	1.00	0.96	1.00	1.00	0.92	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA				
Protected Phases		4			4			2				
Permitted Phases	4						2					
Detector Phase	4	4			4		2	2				
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		20.0	20.0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Split (s)	28.0	28.0			28.0		26.0	26.0				
Total Split (s)	34.0	34.0			34.0		46.0	46.0				
Total Split (%)	42.5%	42.5%			42.5%		57.5%	57.5%				
Maximum Green (s)	26.0	26.0			26.0		40.0	40.0				
Yellow Time (s)	4.0	4.0			4.0		4.0	4.0				
All-Red Time (s)	4.0	4.0			4.0		2.0	2.0				
Lost Time Adjust (s)		0.0			0.0			0.0				
Total Lost Time (s)		8.0			8.0			6.0				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.5	2.5			2.5		3.0	3.0				
Recall Mode	None	None			None		C-Max	C-Max				
Act Effct Green (s)		20.0			20.0			46.0				
Actuated g/C Ratio		0.25			0.25			0.58				
v/c Ratio		0.21			0.10			0.55				
Control Delay		27.2			20.4			12.0				
Queue Delay		0.0			0.0			0.0				
Total Delay		27.2			20.4			12.0				
LOS		C			C			B				
Approach Delay		27.2			20.4			12.0				
Approach LOS		C			C			B				
90th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
90th %ile Term Code	Min	Min			Min		Coord	Coord				
70th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
70th %ile Term Code	Min	Min			Min		Coord	Coord				
50th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
50th %ile Term Code	Min	Min			Min		Coord	Coord				
30th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
30th %ile Term Code	Min	Min			Min		Coord	Coord				
10th %ile Green (s)	20.0	20.0			20.0		46.0	46.0				
10th %ile Term Code	Min	Min			Min		Coord	Coord				
Queue Length 50th (ft)		36			15			180				
Queue Length 95th (ft)		65			33			250				
Internal Link Dist (ft)		182			182			594			204	
Turn Bay Length (ft)												
Base Capacity (vph)		936			1123			3101				
Starvation Cap Reductn		0			0			0				
Spillback Cap Reductn		0			0			0				
Storage Cap Reductn		0			0			0				
Reduced v/c Ratio		0.16			0.08			0.55				

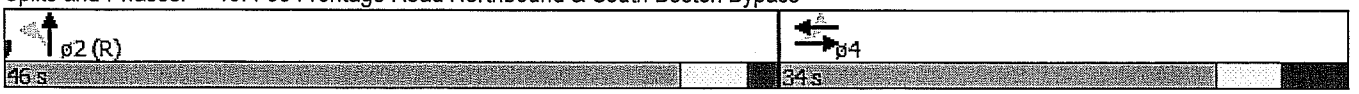
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 75 (94%), Referenced to phase 2:NBTL and 6:, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55

Intersection Signal Delay: 13.6
Intersection Capacity Utilization 59.1%
Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service B

Splits and Phases: 19: I-93 Frontage Road Northbound & South Boston Bypass



□ Parking Observations


Traffic, Transit, Bicycling, Directions
Newmarket Square
Dunkin' Donuts
Eliot St
3A
3
93
16
The Home Depot
Best Buy
Old Navy
Panera Bread
OfficeMax South Bay Center
Holiday Inn Express Boston
Boston St
Victoria's Diner
Newmarket
Stop & Shop
Courtyard Boston-South Boston
Olive Garden
Rawson St
Washburn St
Howell St
Shirley St
Shetland St
Massachusetts Ave
Allstate Rd
1
2
3
4
5
6
7
8
9
10
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200 ft

PRECISION
D A T A
INDUSTRIES, LLC
P.O. Box 301 Berlin, MA 01503
Office: 508.481.3999 Fax: 508.545.1234
Email: datarequests@pdillc.com

South Bay Center Parking Study

Date: Thursday 11/13/14

Zone #	1	2	3	4	5	6	7	8	9	10
Total Spaces	64	113	223	155	346	290	259	227	588	59
9:00 AM	24	36	46	4	77	43	89	33	105	17
10:00 AM	25	51	89	8	92	87	150	71	119	26
11:00 AM	35	63	98	7	98	104	188	131	138	31
12:00 PM	32	62	113	6	123	100	162	84	123	25
1:00 PM	38	59	111	6	131	187	179	149	148	27
2:00 PM	36	58	105	4	132	221	191	174	156	29
3:00 PM	37	42	105	2	138	131	111	124	142	26
4:00 PM	42	40	94	2	98	96	155	85	93	27
5:00 PM	33	50	95	2	100	116	122	104	119	18
6:00 PM	26	26	85	3	104	120	95	93	87	14
7:00 PM	21	25	73	3	92	135	117	87	141	22
8:00 PM	19	24	74	2	104	104	91	81	123	12

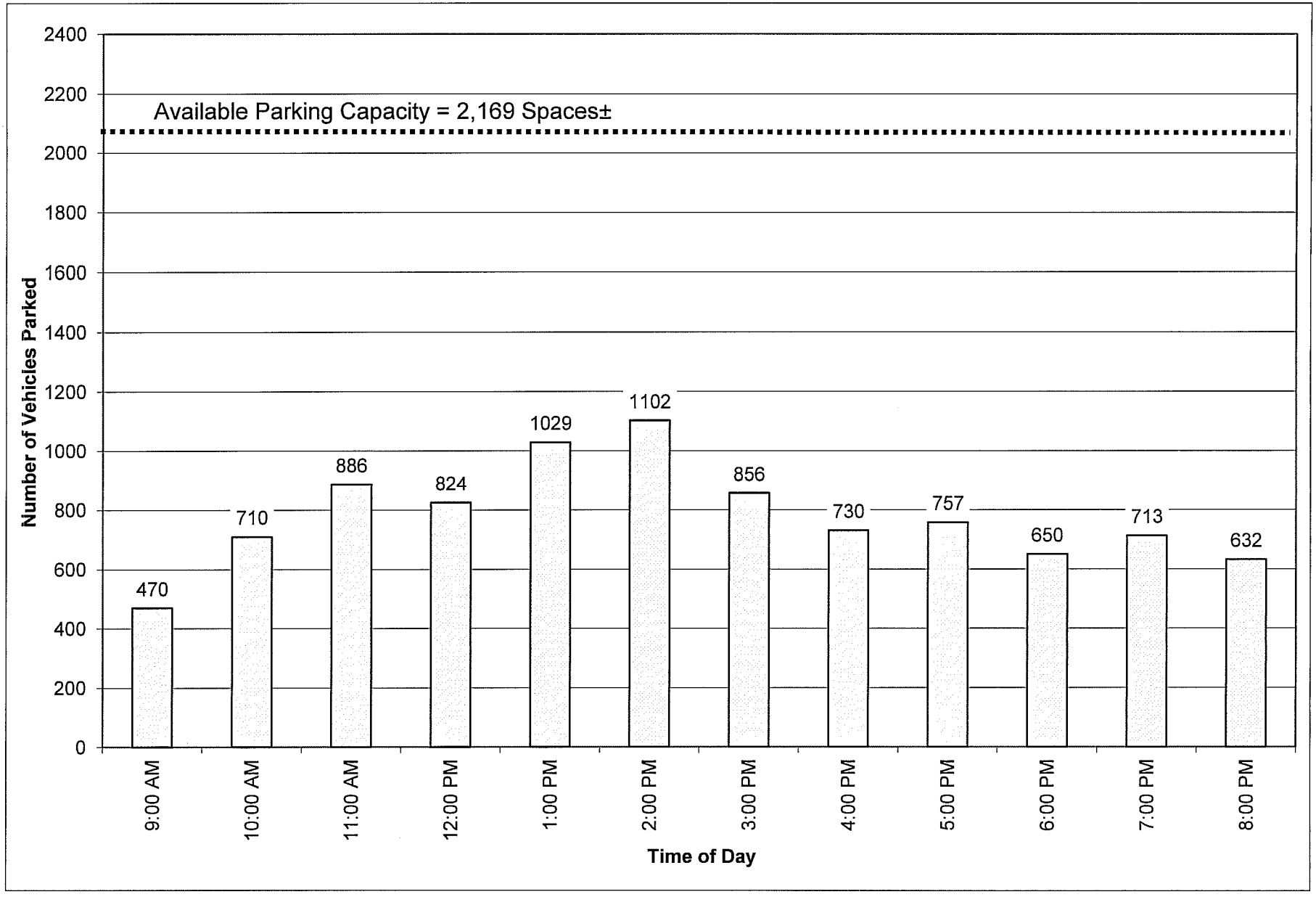
Date: Saturday 11/15/14

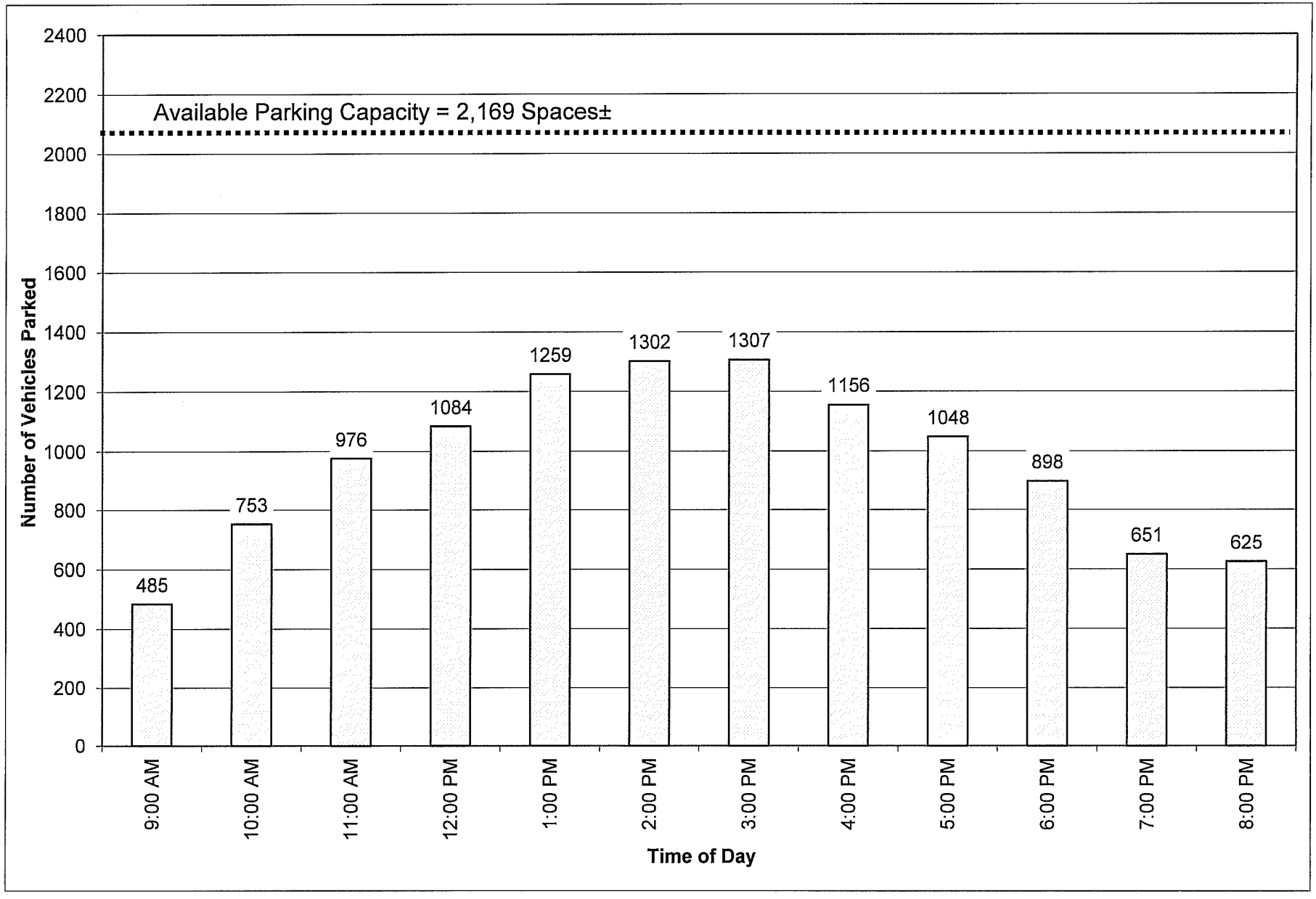
9:00 AM	30	36	55	1	48	28	116	34	119	19
10:00 AM	31	46	82	1	94	80	179	80	142	19
11:00 AM	33	61	127	2	105	134	175	115	202	24
12:00 PM	35	58	129	2	141	151	170	149	227	24
1:00 PM	38	69	128	3	160	216	202	157	263	26
2:00 PM	38	52	136	5	218	239	202	163	231	23
3:00 PM	32	51	129	2	150	260	219	177	260	29
4:00 PM	29	51	127	1	129	219	202	148	219	32
5:00 PM	44	58	126	2	130	188	156	129	191	26
6:00 PM	28	44	98	1	108	165	116	126	185	28
7:00 PM	15	23	81	1	95	133	94	82	105	23
8:00 PM	12	26	76	1	95	122	81	68	121	24

Notes

Lot 5: An 18 Wheeler was parked at a driveway exit between Lot 5 and Lot 6 altering the traffic patern between 9am and 2pm.

Lot 4: Construction Zone: Only Construction vehicles were in there. Parking Spaces poorly marked and blocked by construction materials.


2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Available Parking Capacity = 2,169 Spaces±
Number of Vehicles Parked
470
710
886
824
1029
1102
856
730
757
650
713
632
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
Time of Day


Available Parking Capacity = 2,169 Spaces±
Number of Vehicles Parked
Time of Day
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
485
753
976
1084
1259
1302
1307
1156
1048
898
651
625
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM

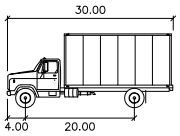
□ AutoTurn® Exhibits

Site Truck Routes
(No Use of Neighborhood Streets)



Proposed Mixed-Use Development

Boston, Massachusetts



SU	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers
28 Lord Road, Suite 280
Marlborough, MA 01752

DWG No. 804 Autoturn (6-8-2015).dwg

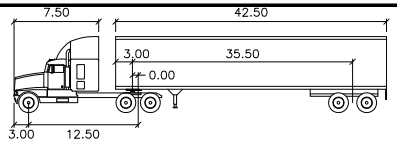
Date: June 2015
Project No. 804

Site Truck Routes
(No Use of Neighborhood Streets)



Proposed Mixed-Use Development

Boston, Massachusetts



WB–50	feet
Tractor Width	: 8.00
Trailer Width	: 8.50
Tractor Track	: 8.00
Trailer Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 17.7
Articulating Angle	: 70.0

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers
28 Lord Road, Suite 280
Marlborough, MA 01752

DWG No. 804 Autoturn (6-8-2015).dwg

Date: June 2015
Project No. 804